This theme issue includes five articles that focus on technology for education to benefit all students, including limited-English-proficient, minority, economically disadvantaged, and at-risk students. "Coca-Cola Valued Youth Program Students Meet Peers Via Video Conference" (Linda Cantu, Leticia Lopez-De La Garza) describes how at-risk student tutors learn to use e-mail, fax, and video equipment through participation in a video conference with other student tutors. A sidebar shows how the program supports Texas middle school academic standards. "Financial Aid: Challenges and Possibilities for Minority Students" (Felix Montes) discusses the increasingly hostile environment towards minorities exhibited by higher education institutions following court decisions weakening affirmative action, and reviews four financial aid and college information web sites. "Creating a Grade Book on the Computer" (Charles A. Cavazos) presents step-by-step instructions for computer novices on how to create a grade book using spreadsheet software. "Reflections: Mike the Knife" (Jose A. Cardenas) draws on a personal anecdote to argue that the underachievement of students from atypical populations is due to the tendency of schools to interpret student differences as lack of mental capability. "Integrating Technology into Your Curriculum" (Joseph L. Vigil) discusses strategies for integrating technology into curricula that enhance human interaction, guidance, and modeling. A list of 43 web sites includes the categories: charter schools, general education and equity, magnet schools, national origin equity, race equity, gender equity, sexual harassment prevention, and technology in education. Sidebars present a teacher's Internet use guide; a school opening alert informing undocumented immigrant students, in English and Spanish, of their rights to attend public schools; and facts concerning student computer use. (TD)
Coca-Cola Valued Youth Program
Students Meet Peers Via Video Conference

Linda Cantu, M.A., and Leticia López-De La Garza, M.A.

IDRA held six video conferences last year between Coca-Cola Valued Youth Program sites in 11 schools in seven cities. About 200 students participated in this technological opportunity.

These students are tutors in the Coca-Cola Valued Youth Program and rarely get a chance to meet each other even within the same district. But this year, IDRA has discovered a successful way to bring tutors together across borders and oceans. This article describes the steps we used for the video conferences as well as the educational benefits for the tutors.

The Coca-Cola Valued Youth Program is an internationally recognized cross-age tutoring program developed by IDRA in 1984. In the program, secondary students who are considered to be at-risk of dropping out are placed as tutors of elementary students, enabling the older students to make a difference in the younger students’ lives. With a growing sense of responsibility, pride and school support, the tutors stay and do better in school.

Currently, the Coca-Cola Valued Youth Program has more than 90 participating elementary and secondary schools in eight continental U.S. states, Puerto Rico and Great Britain.

Steps We Used

The purpose of the video conferences was to enable tutors from different cities to communicate with each other and to see that they are a part of an expansive international program. Each video conference was a three-part technological endeavor.

First, tutors were selected to be “key pals” (e-mail pen pals) with tutors from another site. Each tutor was paired with a tutor in another city. They wrote friendly letters to each other to introduce themselves. They talked about their tutees and tutoring experiences, exchanged some personal information about themselves (age, grade, hobbies) and described a little about their schools and cities.

Because of the varying sophistication of technology equipment from school to school, the Coca-Cola Valued Youth Program offered three suggestions for having students send their letters. E-mail was the preferred method to encourage the use of this technology. Other possibilities were faxing and sending by regular mail. All students were encouraged to correspond with their key pals at least once or twice before their video conference.

Second, tutors prepared presentations for their upcoming video conference. Students planned to alternate from city to city making presentations, including the following.

• Offering a welcome – Tutors from each city had five minutes to introduce their tutors and teachers.
• Giving information about their city – Tutors used a map to describe where they were located and gave demographic information and highlights of their cities and schools.
• Meeting their key pals – Each tutor had a chance to meet his or her key pal and to ask and answer two questions.
• Making group presentations on tutoring – Tutors were divided ahead of time into teams of four and five students. Each
Developing Literacy

The use of video conferencing was a great opportunity to build tutors’ literacy skills. Through their participation, tutors were developing their oral and written skills. Each tutor prepared a script, practiced orally, and then edited the script. After reading orally, they would notice and correct wrong tense verbs and add adjectives that made their presentations more interesting. They developed their oral skills through their presentations and worked hard to pronounce and enunciate words correctly.

Tutors helped each other with their scripts and oral presentations and gave each other suggestions. They conducted several practice sessions and improved their presentations. Because they were preparing for a real audience of peers, the tutors worked hard to improve their presentations.

Enhanced Use of Technology

Coca-Cola Valued Youth Program tutors benefitted greatly by learning to use new technology. They had an opportunity to experience communication through e-mailing key pals and participating in a video conference. There are many teachers — even those who teach technology — who have not had this full experience. Tutors learned how to plan and perform their presentations and how to use the most advanced technology in video conferencing. They learned about the cameras and microphones and how to use the keyboard to zoom in and out. They went behind the scenes and spoke with technology staff. Tutors also learned about new careers created through the advent of advanced technology.

Video Conferencing Supports Standards

The Coca-Cola Valued Youth Program video conferencing objectives met many of the standards for education, such as the Texas Essential Knowledge and Skills (TEKS) descriptors (see box on Page 17). The TEKS define student performance in four domains: foundations (e.g., data input, terminology), access to information, problem solving, and communication.

Teachers experienced new teaching...
Education has been heralded as the most effective means of social advancement in this country. Many analysts consider the GI Bill that provided financial aid to the returning, victorious soldiers of World War II one of the best decisions ever made by the U.S. Congress, even though opposition was strong at the time.

Today, there is abundant evidence that the GI Bill changed the lives of thousands of people. Today, it is still important to provide students with the financial resources they need to complete their education and obtain a college degree. IDRA has been involved in efforts to provide schools, families and community organizations with the means to inform students of available sources of funds. This article highlights those efforts, outlines challenges minority students face in obtaining financial aid and describes four useful sources of information.

Southwestern Bell Helps Students Go to College

In the early 1990s, some financial assistance was available from state and federal governments, civic groups, universities, and colleges. But specific and centralized information about these sources of funds was not available. Furthermore, school personnel were not trained to help students retrieve the information through the then emerging electronic means. If such information had been readily available to parents and counselors, many students would have found that they could afford to go to college.

IDRA sought and received a grant from Southwestern Bell in 1993 to assist students. With this grant, IDRA launched the Southwestern Bell Student Financial Assistance Project to facilitate students' access to such information. The project became a resource to students, parents and schools in satisfying this long-standing need.

Through the project, IDRA collected information about local sources of funding in the Rio Grande Valley area where the project was designed to operate. With this information, IDRA developed a data base of regional funding sources. National information was obtained through the software program, FundFinder. Additional software was developed by IDRA to organize the information.

The project was implemented in five schools with a total enrollment of 11,871 students. These schools were selected based on their varying characteristics. Some were large schools while others were small; some schools were rural while others were urban.

IDRA installed the required software in all participating campuses, updated the data bases periodically and trained school counselors, library aides and other student services personnel, and parents to use the technology. IDRA also helped the schools design procedures that maximized students' access to the system. In some cases, this involved including students as part of the project team, relocating computers to more accessible places and involving members of the community. IDRA provided technical assistance as needed for the duration of the project.

One of the most important conclusions derived from the project was the need for professional development and technical assistance in using technology to help students obtain financial aid information. For example, although participants felt that all activities of the project were productive, the hands-on training experience obtained the highest mark in the project evaluation because, as one participant said, "When you do the actual work, you learn and understand more." Another participant added: "Questions that arose were answered promptly. It's actually easier than I anticipated." Having experts in both financial aid issues and in technology was a major positive element in implementing this project.

The project concluded in June 1995 with the end of the grant. Most of the schools continued to use the system.

In 1996, IDRA collaborated with the Council for South Texas Economic Progress (CoStep) to continue some aspects of the student financial aid support that IDRA had developed. Under this agreement, IDRA trained CoStep personnel and provided some of the software tools used in the original project. CoStep visited 13 campuses and directly helped 1,956 students find financial aid information. This effort is continuing today.

CoStep now uses a "NetMobile" to help students get access to scholarship in-
New Rulings Bring Back the Old Ways

Several factors make it increasingly difficult for minority students to get financial aid. For the past 20 years, the balance between the different components of financial aid—grants, loans and work-study programs—has changed significantly (HACU, 1994). In 1975, more than 80 percent of all financial aid came from grants. In 1993, that percentage dropped to 51 percent. Student loans increased from 16.9 percent to 47 percent in the same period, making up the difference, according to the College Entrance Examination Board (HACU, 1994). The work-study program also dropped from 2.8 percent to 2 percent. Since a much larger proportion of minority students, especially Hispanic and African American students, come from low-income families, this larger reliance on loans hits them particularly hard as their families are less likely to qualify for them.

To make matters worse, affirmative action in higher education admissions, financial aid and recruitment has come under severe attack in recent years.

In 1978, Allan Bakke sued the University of California Medical School at Davis claiming that his rights were violated on the grounds that the admissions program had a set aside for African American students (U.S. Supreme Court, 1978). The U.S. Supreme Court ruled against the admissions program. However, Justice Lewis F. Powell wrote in his concurrence that, while the court was striking down the program, it is permissible to take race into account as one factor among many in making admissions in order to achieve a diverse student body.

This case was concerned specially with admissions. But it opened the door for similar challenges related to financial aid. For example, Daniel Podberesky sued the University of Maryland at College Park on the grounds that its Benjamin Banneker scholarship, which gave preference to African American students, discriminated against non-African American students (U.S. Court of Appeals for the Fourth Circuit, 1994). The university won the case at the district court level, but Podberesky appealed, and the Court of Appeals for the Fourth Circuit struck down the program. The university appealed to the Supreme Court, which refused to review the case, saying that it would not establish a clear precedent for future cases.

Perhaps the most venomous case occurred in Texas in 1994. Cheryl Hopwood and a handful of other students charged the University of Texas Law School with “reverse discrimination” in its admissions policies (U.S. Court of Appeals for the Fifth Circuit, 1994). The district court ruled the admissions program was unconstitutional, and the Court of Appeals for the Fifth Circuit upheld the district court’s decision. The U.S. Supreme Court chose not to hear the case since the specific program was no longer in use at the school (Cortez and Romero, 1997).

Two of the Fifth Circuit judges stressed their view that, based on recent Supreme Court decisions on other areas of affirmative action (such as redistricting and contracting), Justice Powell’s Bakke opinion was no longer valid.

Such overtures did not go unnoticed. Public officials and enemies of affirmative action used the Hopwood ruling as an excuse to weaken affirmative action in all areas of education. Thus, the attorney general of Texas rushed to interpret the scope of the ruling. As a result, in Texas, the ruling now extends not only to admissions but also to scholarships, fellowships and other financial aid programs and to any race-conscious recruiting. In Mississippi and Louisiana, the other two states in the Fifth Circuit, the broad interpretation was less effective because these states are under federal desegregation orders and therefore are still permitted to use race-based affirmative action.

Inferring a changing public mood regarding affirmative action, politicians in California developed Proposition 209, an amendment to the California constitution that effectively mandates the end of affirmative action in the state of California. Shortly after the proposition was passed, the general counsel of the University of California issued an opinion saying that Proposition 209 could require eliminating any race-based scholarships in the state.

These attacks on affirmative action in education and other areas have produced negative results for minorities. Intangible results include a climate of intolerance toward minorities exemplified by professors who openly voice racist remarks against minority groups. For example, University of Texas Law School Professor Lino Graglia, in a September 10, 1997, news conference said that African American students and Mexican American students are not academically competitive with White students and seem to come from cultures that do not look on failure with disgrace. The next day, in an interview with the Austin American-Statesman, Graglia said he
Teacher's Internet Use Guide

This step-by-step Internet user guide by the STAR Center*, enables teachers to use and develop standards-based lessons. Teachers save time and energy by using links to on-line lessons and curriculum units that can be customized for a class. The guide is a dynamic and growing resource of lessons created by Texas teachers. It is a hands-on, hyperlinked tool. The self-paced manual provides a framework for teachers to work through the process of planning Internet-based lessons that are aligned with the Texas Essential Knowledge and Skills. Many sites on the World Wide Web provide instructors with ready-made lesson plans. The Teacher's Internet Use Guide gives instructors the opportunity to create lessons on their own that address the new standards that states and districts are adopting. Rather than being "spoon fed" lessons, teachers will learn and practice the process necessary to integrate the Internet into instruction.

More than 60 links are available through the guide and include the following online resources:

- Texas Information
- Background Information
- Ask the Experts
- Cross-Curricular Sites
- Math and Science Sites
- Arts, History, Humanities
- Language Arts
- On-line Projects
- Web Site Evaluation Guidelines
- Books

www.starcenter.org

*The STAR Center is the comprehensive regional assistance center funded by the U.S. Department of Education to serve Texas. It is a collaboration of the Intercultural Development Research Association (IDRA), the Charles A. Dana Center at the University of Texas at Austin, and RMC Research Corporation. For information about STAR Center services call 1-888-FY1-STAR.

Financial Aid - continued from page 4

opposed school desegregation because:
I don't know that it's good for Whites to be with the lower classes [because] they perform less well in school. They tend towards greater violent behavior (Roser, 1997).

Tangible results of this undermining of affirmative action include an 80 percent drop in the number of African American applicants to the law schools at UCLA and Berkeley. Similarly, applications from African American students to the University of Texas Law School dropped from 65 in 1996 to 10 in 1997, after the Hopwood decision (Peckham, 1997). The damage is not limited to these specific colleges. There were 867 fewer applications to all Texas universities from African American students, representing a 21.6 percent decline in a one-year period. There were 1,608 fewer applications to those same schools from Hispanic students, a 22 percent drop for the group that represents the fastest growing segment of the Texas student population (IDRA, 1997).

The future of higher education for all minorities, and especially for underprivileged minorities, is less certain today. On the one hand, the increasing reliance on loans excludes a substantial number of minority families due to their low socio-economic status. On the other hand, the successful attacks on affirmative action in education and its natural aftermath of racism and intolerance makes it difficult for minority students to get grants or scholarships. But technology might offer one of the glimmers of hope in this otherwise bleak picture.

New Technology Presents New Possibilities

Just a few years ago, when IDRA implemented the student financial assistance project, the most common way of getting information about financial aid was through the financial aid books that counselors would use to help students who indicated an interest in pursuing college education. This is still the case in many schools. But, today there are better options.

In 1993, the College Board introduced FundFinder, a DOS-based (IBM PC textual operating system) software program that provided information about national sources of funds from private and public institutions.

FundFinder represented an important departure from the book approach used in the schools. It was much faster, more accurate and could be used by more people. It also provided information about expected expenditures and financial possibilities for most colleges and universities in the country.

However, it also introduced the need for more training and technical assistance for school personnel in using computers and technology in general. As has been the case with other technological advances, some schools hastened to acquire the software but barely used it due to lack of training and technical assistance.

In 1994, the College Board introduced ExPan, the successor to FundFinder. ExPan was a more sophisticated, Windows-based software program that provided information about financial aid and universities as well.

Financial Aid - continued on page 12

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### FINANCIAL AID AND COLLEGE INFORMATION WEB SITES

<table>
<thead>
<tr>
<th>Site Name</th>
<th>Internet Address</th>
<th>Type</th>
</tr>
</thead>
<tbody>
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<td>College Board</td>
<td><a href="http://collegeboard.org">http://collegeboard.org</a></td>
<td>College planning aid</td>
</tr>
<tr>
<td>CollegeView</td>
<td><a href="http://collegeview.com">http://collegeview.com</a></td>
<td>College search and electronic visit services</td>
</tr>
<tr>
<td>FastWeb</td>
<td><a href="http://www.fastweb.com">http://www.fastweb.com</a></td>
<td>Scholarship search</td>
</tr>
<tr>
<td>FinAid Online</td>
<td><a href="http://www.finaid.org">http://www.finaid.org</a></td>
<td>General guide to student financial aid scholarship search</td>
</tr>
</tbody>
</table>
The National Coalition of Advocates for Students (NCAS) has launched its annual School Opening Alert campaign to reaffirm the legal rights of all children who reside in the United States to attend public schools, regardless of immigration status. The fliers provide information for immigrant parents about the rights of their children to attend local public schools this fall. IDRA is working with NCAS to make this alert available. NCAS can also provide a camera-ready copy of the alert in English and Spanish to be reproduced and distributed by schools and community groups. The copy of the alert below and on the following page may be reproduced and used as well.

**School Opening Alert**

In 1982, the U.S. Supreme Court ruled in *Plyler vs. Doe* [457 U.S. 202 (1982)] that undocumented children and young adults have the same right to attend public primary and secondary schools as do U.S. citizens and permanent residents. Like other children, undocumented students are required under state laws to attend school until they reach a legally mandated age.

As a result of the *Plyler* ruling, public schools may not:
- deny admission to a student during initial enrollment or at any other time on the basis of undocumented status;
- treat a student differently to determine residency;
- engage in any practices to “chill” the right of access to school;
- require students or parents to disclose or document their immigration status;
- make inquiries of students or parents that may expose their undocumented status; or
- require social security numbers from all students, as this may expose undocumented status.

Students without social security numbers should be assigned a number generated by the school. Adults without social security numbers who are applying for a free lunch and/or breakfast program for a student need only state on the application that they do not have a social security number.

Recent changes in the F-1 (student) Visa Program do not change the *Plyler* rights of undocumented children. These changes apply only to students who apply for a student visa from outside the United States and are currently in the United States on an F-1 visa.

Also, the Family Education Rights and Privacy Act (FERPA) prohibits schools from providing any outside agency—including the Immigration and Naturalization Service—with any information from a child’s school file that would expose the student’s undocumented status without first getting permission from the student’s parents. The only exception is if an agency gets a court order (subpoena) that parents can then challenge. Schools should note that even requesting such permission from parents might act to “chill” a student’s *Plyler* rights.

Finally, school personnel—especially building principals and those involved with student intake activities—should be aware that they have no legal obligation to enforce U.S. immigration laws.

For more information or to report incidents of school exclusion or delay, call:

- **NCAS**
  - Nationwide: (800) 441-7192 (English/Spanish/French)
- **META**
  - Nationwide: (617) 628-2226 (English/Spanish)
- **META**
  - California: (415) 546-6382 (English/Spanish)
- **NY Immigration Hotline**
  - Nationwide: (718) 899-4000 (English/Spanish/Chinese/French/Korean/Polish/Urdu)
- **MALDEF**
  - California: (213) 629-2512 (English/Spanish)
  - Illinois: (312) 427-9363 (English/Spanish)
  - Texas: (210) 224-5476 (English/Spanish)

Please copy and distribute this flier.

*This flier was updated July 1998 and is available in English (www.ncasl.org/soa.htm), in Spanish (www.ncasl.org/soasp.htm), and in Haitian Creole (www.ncasl.org/soahc.htm).*

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National Coalition of Advocates for Students

100 Boylston Street, Suite 737, Boston, MA 02116

August 1998

IDRA Newsletter
Llamada Urgente al Comienzo del Curso Escolar

En 1982, El Tribunal Supremo de los Estados Unidos dictaminó en el caso Plyler vs. Doe [457 U.S. 202] que los niños y los jóvenes indocumentados tienen el mismo derecho de asistir a las escuelas públicas primarias y secundarias que tienen sus contrapartes de nacionalidad estadounidense. Al igual que los demás niños, los estudiantes indocumentados están obligados a asistir a la escuela hasta que llegan a la edad exigida por la ley.

A raíz de la decisión Plyler, las escuelas públicas no pueden:
- negarle la matrícula a un estudiante basándose en su situación legal y/o inmigratoria, ya sea a principios del curso o durante cualquier otro momento del año escolar;
- tratar a un estudiante en forma desigual para verificar su situación de residencia;
- efectuar prácticas cuyo resultado sea obstruir el derecho de acceso a los servicios escolares;
- requerir que un estudiante o sus padres revele o documenten su situación inmigratoria;
- hacer interrogatorios a estudiantes o padres que pudieran revelar su situación de indocumentados;
- exigir que un estudiante obtenga un número de seguro social como requisito de admisión a la escuela.

La escuela debe de asignar un número de identificación a los estudiantes que no tienen tarjeta de seguro social. Los adultos sin números de seguro social quienes están solicitando que a un estudiante lo admitan a un programa de almuerzo y/o desayuno gratis, sólo tienen que indicar que no tienen seguro social en el formulario.

Los últimos cambios del Programa de Visado F-1 (de estudiantes) no cambiarán las obligaciones antedichas en cuanto a los niños indocumentados. Se aplican sólo a los estudiantes que soliciten del extranjero un visado de estudiantes y que están actualmente en los Estados Unidos en un Visado F-1.

Además, el Acta Familiar de Derechos y Privacidad Escolar (Family Education Rights and Privacy Act - FERPA) le prohíbe a las escuelas proveerle a cualquier agencia externa – incluyendo el Servicio de Inmigración y Naturalización (Immigration and Naturalization Service – INS) – cualquier información del archivo personal de un estudiante que pudiera revelar su estado legal sin haber obtenido permiso de los padres del estudiante. La única excepción es si una agencia obtiene una orden judicial – conocida como una citación o subpoena – que los padres pueden retar. Los oficiales escolares deben estar conscientes de que el mero hecho de pedirle tal permiso a los padres podría impedir los derechos Plyler de un estudiante.

Finalmente, el personal escolar – especialmente los directores de las escuelas y los secretarios generales – deben saber que no están bajo ninguna obligación legal de poner en vigor las leyes de inmigración de los EE.UU.

Para más información, o para denunciar incidentes de exclusión escolar o retraso en la admisión a clases, favor de llamar a:

NCAS  Nacional  (800) 441-7192  (Inglés/Español/Francés/Alemán)
META  Nacional  (617) 628-2226  (Inglés/Español)
META  California  (415) 546-6382  (Inglés/Español)
NY Línea de Urgencia de Inmigración  Nacional  (718) 899-4000  (Inglés/Español/Chino/Francés/Koreano/Polaco/Urdu)
MALDEF  California  (213) 629-2512  (Inglés/Español)
MALDEF  Illinois  (312) 427-9363  (Inglés/Español)
MALDEF  Texas  (210) 224-5476  (Inglés/Español)

Favor de copiar y distribuir este volante.


National Coalition of Advocates for Students  100 Boylston Street, Suite 737, Boston, MA 02116

August 1998  IDRA Newsletter
Creating a Grade Book on the Computer

Charles A. Cavazos

The computer is a tool. But it is not as easy to learn to use as a rake. Let’s face it, no amount of honeyed words will get that rake to hop up and gather leaves into nice piles for you.

But a computer will work for you with its own kind of magic.

This article outlines how to create a simple effective grade book using spreadsheet software. First, I have three quick disclaimers: I have chosen to use the spreadsheet in Microsoft Works 4.0 for Windows 95 for this article because it is a common software program available on many PC computers. (Microsoft Works is also available on Macintosh computers.) Second, this article is written for those who are not real comfortable with computers. If you find the pace too slow, skip ahead. Third, I am well aware that Microsoft Works already has a built-in grade book. And it sure looks pretty. But it is not user friendly. In fact, my computer came with a whole book on Microsoft Works, yet it does not tell me how to use the grade book! More importantly, by understanding how your grade book is created, you will understand everything there is to know about it.

For readers who are not sure what a spreadsheet is, let me describe one to you. It is like a sheet of ledger paper (on your computer screen) with well-lined rows and columns for numbers. It is capable of manipulating those numbers arithmetically, like calculating grade averages.

Before You Begin

Before you create a grade book, you have to consider the elements that will go into its design. Specifically, you must consider:

- the period of time the grade book will cover,
- the number of students,
- the number of items to be graded, and
- the way the final grade will be determined.

In this example, the period of time will be one six-week period, with 25 students, and 23 items to be graded (20 homework assignments and three tests). The homework grades will be averaged to make up one quarter of the final grade. The three test scores will each count as one quarter of the final grade. My grade book will be designed to figure all of this out. If you have Microsoft Works, follow along with me.

**Start Microsoft Works**

The first thing to do is to open the spreadsheet in Microsoft Works. To do this, follow these steps (for Windows 95):

1. From the desktop (the screen that remains in view after you have turned your system on) put the mouse pointer over the “Start” button on the lower left corner of the screen and click it. This will open the Start Menu.
2. Move the pointer straight up to shade “Programs.” This will open the Program Menu.
3. Look for “Microsoft Works” on the Program Menu. Move the pointer to the right and up or down until Microsoft Works is shaded.
4. One more menu is opened; the Meworks menu. Click on this to open Microsoft Works.
5. The Works Task Launcher screen will be displayed. Click on the folder tab that reads “Works Tools.”
6. Four buttons are displayed. Click on the Spreadsheet button.

**We’re In. Now What?**

Take a look at the grid. The grid is the spreadsheet itself. The spreadsheet is made up of columns and rows. Notice that at the top of each column is a letter, beginning with A; to the left of each row is a number, beginning with 1.

The columns overlaid on the rows create the rectangles that you see. These column-row intersections are called cells. Cells hold numbers, text and formulas. Each cell has a unique address made up of the cell’s column letter, followed by its row number. For example, the address of the cell at the top left of the spreadsheet is A1. The cell directly beneath it is A2; to the immediate right of A1 is B1. Look at cell A1. Its borders are shaded. This is because the cursor is currently in this cell, making it the “active” cell. If I type anything right now and press the enter key, it will be written into this cell. When I enter data I must take care to enter it into the correct cells. This will become evident as I design the grade book.

One more thing about the spreadsheet on the screen: you can only see a portion of it at one time. There are many more columns and rows available to you. I will need some of these and can scroll the screen to the right or down by clicking on the arrows at the bottom right corner of the spreadsheet. The cursor can also be moved by pressing the arrow keys on the keyboard.

**Create the Grade Book**

Now I will create the grade book. A grade book is used to record each grade for each student. Accordingly, I must distinguish the students from one another, as well as the graded items from one another. To do this I will let each row represent a student and each column represent an assignment or test. A row will hold all the data for one (and only one) student. A column will hold data for only one assignment or grade. A cell will then hold the item grade for the student whose row intersects the item column.

If I have 25 students I am going to need 25 rows; if I plan to administer 23 items to be graded (20 homework assignments and three tests) I am going to need 23 columns.

I will use two additional rows as column headings to tell me what I am scoring. I will also use three more columns: one to record the students’ names, one to average the homework grades and one to average the final grade.

<table>
<thead>
<tr>
<th></th>
<th>A</th>
<th>B</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>HWORK1</td>
<td>9/1/98</td>
</tr>
<tr>
<td>2</td>
<td>Student</td>
<td></td>
</tr>
</tbody>
</table>

I will begin by moving the cursor and clicking on cell A2. I will type “Student.” (As you read this article, enter the text between the quote marks and not the quote marks themselves.) This is the column heading for column A. The only thing that will be entered in this column will be the names of the students. In cell B1, I will enter “HWORK1” (my abbreviation for “first homework assignment”). Immediately below that, in B2, I enter the date that the homework is assigned. I will type the first date as “9/1/98.” Accordingly, I will type “HWORK2” in cell C1 and its assignment date in C2.

I will continue to create my column headings across the spreadsheet until I write “HWORK20” in cell U1 and its assignment date in U2.

Creating a Grade Book - continued on page 9
Creating a Grade Book - continued from page 8

In column V, I want to average the homework scores. So in cell V1, I will type "HWORK" and in V2, "Average."

The next three columns, W, X and Y, will contain the grades of three tests I will administer. In cell W1, I will type Test 1, and its date in cell W2, and so on to cells Y1 and Y2.

Finally in column Z, I will average the 20 homework grades and three test grades for the final grade. I will type "Final" in cell Z1, and "Grade" in Z2.

To summarize where I am so far, column A will contain student names; columns B through U will contain homework grades; column V will contain a formula to average the homework grades; columns W, X and Y will contain test scores; and column Z will contain a formula to calculate the final grade. Since I used the top two rows for headings, the first row I can use for a student name is row 3. But for the sake of readability, I will skip row 3 and begin the names on row 4.

<table>
<thead>
<tr>
<th>U</th>
<th>V</th>
<th>W</th>
<th>X</th>
<th>Y</th>
<th>Z</th>
</tr>
</thead>
<tbody>
<tr>
<td>HWORK</td>
<td>HWORK</td>
<td>Test 1</td>
<td>Test 2</td>
<td>Test 3</td>
<td>Final</td>
</tr>
<tr>
<td>10/2/98</td>
<td>Average</td>
<td>9/15/98</td>
<td>9/25/98</td>
<td>10/6/98</td>
<td>Grade</td>
</tr>
</tbody>
</table>

This is a good time to save the grade book. On the menu bar I will click File, then "Save As," and enter a file name that adequately describes the grade book and the period it covers, “First Six Weeks Grade Book.” After I have named the file I can save changes at any time by clicking File, then “Save.” (If you cannot restrict access to your computer in the classroom, save the file to a diskette and keep it locked away. Keep a backup copy as well.)

The Formulas — No Problem!

Formulas are an integral part of the spreadsheet environment. If you make a mistake as you create a formula, you can use the “Undo” feature on the menu bar or close the document without saving your most recent changes and reopen it.

A formula is placed in the cell where you want the result to appear. On my grade book that means the formula that averages the homework grades for the first student will be placed in cell V4; for the second student, in cell V5, and so on to V28.

I have moved my pointer to cell V4. In it, I type “=AVG(B4:U4)” and press the enter key. Note that there are no spaces in the formula. Formulas have a syntax that allow them to be understood by the computer and the user. The meaning of “=AVG(B4:U4)” follows:

- means what follows is a formula (as opposed to numbers or text).
- AVG directs the computer to average what follows.
- (B4 means begin with data in cell B4 (begin because B4 is the first cell listed in the formula).
- ) means “through.”
- (U4 means end with data in cell U4 (end because U4 is the second cell listed in the formula).

In sentence form it could be rendered as: “This is a formula. Average the valid entries in cells B4 through U4 and place the result in V4.”

Zero is a valid entry, a blank cell is not. If one of the 20 homework cells is left blank, the remaining 19 will be summed and divided by 19. If the same cell is filled with a zero, the 20 grades will be summed and divided by 20. Formulas are designed to adjust automatically as data are entered. This means that no matter where I am in the six week period I will always have an up-to-date average.

But on my screen right now, instead of showing “=AVG(B4:U4)” in cell V4, “ERR” is displayed. “ERR” means error. However, it is not really an error. “ERR” is displayed because there are no numbers yet in any of the cells in the formula (B4 through U4). Incidentally, this is the best time to check the formula. The first formula will serve as a model for the remaining ones. If the first formula is incorrect, the others will be incorrect as well. To check it I will move the pointer to B4 and enter 100. Cell V4 should now read 100. It does. Next I will enter 90 into cell C4. Cell V4 should now read 95. You can see how formulas behave interactively, working immediately as new data are entered.

Take one more look at the formula. Notice that if the homework grades were not recorded in consecutive columns I could not use “=” (through) in my formula and would have to list the cell addresses individually. This is not difficult to do, but it is messier and more susceptible to error. Accuracy is the key; keep the design as simple as possible.

I will use the same formula for every cell in column V, but I must change the row number in each cell address to match the row that the cell is on. Otherwise William will have Mary’s homework average.

For example, the formula in cell V5 should be “=AVG(B5:U5);” in cell V6, “=AVG(B6:U6),” and so on. The computer is not going to tell me if I am referencing the wrong cells. It will just calculate an incorrect grade average.

I will average the final grade the same way. In cell Z4, I will type “=AVG(V4:Y4).” Cell V4 will contain the homework average (for the first student), cell W4 the first test score, cell X4 the second test score, and cell Y4 the third test score. So the final score is computed in the top cell, one quarter first test, one quarter second test, and one quarter third test. I will copy and adjust the formula into cells Z5 through Z28 as I did with the homework average.

Fine Tuning

There are a two more design considerations. During the six-week period, I am going to enter grades in a matrix beginning in cell B4 and ending in cell Z28. That is a total of 650 cells. I already know I cannot only see a portion of my grade book at one time. I can scroll down and to the right, but it will not be long before I scroll my column headings and student names right off the screen. “Let’s see, which column was I using for the 16th homework assignment? What row was Amanda on? Rats! What good are column headings if you have to memorize them?”

I don’t. I will place the pointer in the upper left cell that will contain scores and click on it, making it the active cell. In my example that is cell B4. On the top of the screen is the menu bar. I will click on Format. This will produce a dropdown menu where I will click “Freeze Titles.” This will freeze the headings above and to the left of the active cell. This means that no matter how far I scroll down, the column headings will always be visible; no matter how far I scroll to the right, the student names will always be visible. This way I will not get lost.

The other design consideration

Creating a Grade Book - continued on page 13
The relationship between parent involvement and student success may be an indirect relationship, with each of the variables being the cause and student performance as the effect. Yet it is possible that a reverse relationship exists, that is, students who perform better may attract more parental interest and concern. My spouse has always contended that if a student’s parents fail to attend PTA meetings, the student will be penalized by the school. I’m more prone to believe that schools, unable or unwilling to be accountable for student failure, tend to extend the student deficit model to the parents, thus using the family as a convenient scapegoat for the school’s failure.

In observing the correlation between parent involvement and student performance, it is very tempting to label parent involvement as the cause and student performance as the effect. Yet it is possible that a reverse relationship exists, that is, students who perform well in school are the cause for their parents being involved with the school. Or, in keeping with my wife’s observation, behavior, the relationship between parent involvement and student success may be an indirect relationship, with each of the variables being related

Perhaps the biggest concern in education today is the massive failure of U.S. schools to extend educational opportunity to students from atypical populations. Students who differ from mainstream children make up the bulk of under performing students. The relationship between socio-economic class and school performance is so close, that of all variables available to social scientists, economic class is the best predictor of school success. I have long believed that the reason for this is not a deficit in atypical populations, but rather a deficit on the part of the school. Schools have little understanding of cultural, language, social and mental characteristics of atypical children and consistently interpret minority or disadvantaged children’s differences from mainstream populations as lack of mental capability. The inevitable placement of culturally, linguistically or economically different children in remedial programs with low level, slow paced, repetitious and boring instruction leads to the misdiagnosis becoming a self-fulfilling prophecy, with an increasing cumulative deficit that leads to frustration, failure and withdrawal. The following anecdote about a mainstream student illustrates the impact that a unique characteristic may have on school perceptions.

"You have to attend the PTA meeting tonight," said my wife.

After a hard day’s work, the prospect of sitting through a PTA meeting was not very appealing. Over the years as an educator and as a parent I have formed some mixed opinions about PTA. On one hand, I have a lot of respect for PTA. In the history of U.S. education it has made an important contribution to the status of education as a local, state and national priority. PTA has always been and continues to be supportive of children, schools, teachers and educational systems in general.

On the other hand, individual PTA meetings are not always the most interesting way to spend an evening. One can opt to stay at home and watch dust settling on the mantelpiece and get more excitement and enjoyment than at a PTA meeting. I once attended a PTA meeting in which 45 minutes were dedicated to a heated discussion as to whether the laminating machine purchase committee had been authorized to select and purchase a new laminating machine or whether the committee had been authorized to look into the purchase of a laminating machine.

In some schools, the PTA serves as a valuable vehicle for parent communications with the school. In other schools the PTA serves as a vehicle for channeling parental interest and concern into trivial, irrelevant, time consuming and non-threatening activity.

I consider parental interest, concern and involvement as desirable characteristics for enhancing student performance, though I have some severe doubts about the extremely high value being placed on parental behavior as a basic necessity for school success. Certainly not to the extent commonly stated nowadays, that it is impossible to educate a student if the parent is not interested. I have never known orphans to present any insurmountable educational challenge, nor have I ever seen any research studies to substantiate the assumption that parental interest is an essential element for school success.

I’m more prone to believe that schools, unable or unwilling to be accountable for student failure, tend to extend the student deficit model to the parents, thus using the family as a convenient scapegoat for the school’s failure.

There are a lot of studies in the literature that indicate that the involvement of the parents in meaningful school activities leads to improved performance on the part of the student, but I find it difficult to assume that attending a PTA meeting is very meaningful.

My spouse has always contended that if a student’s parents fail to attend PTA meetings, the student will be penalized by the teacher, particularly if the student is in a self-contained class or homeroom in a school where teachers are pressured to produce good PTA attendance. My spouse also contends that it is necessary for parents to participate in a lot of school activity because school personnel give preferential treatment to students whose parents are well known, are active in school affairs or simply spend a lot of time in and around the school.

In teaching graduate courses in testing, measurement, statistics and research, I have found that one of the most common errors committed by neophyte statisticians is in once having determined a correlation between two variables, assuming that the relationship between the two variables is causal, i.e., that the relationship is a cause-and-effect relationship, and in many cases even assuming which variable is the cause and which one the effect.

In observing the correlation between parent involvement and student performance, it is very tempting to label parent involvement as the cause and student performance as the effect. Yet it is possible that a reverse relationship exists, that is, students who perform well in school are the cause for their parents being involved with the school. Or, in keeping with my wife’s observation and behavior, the relationship between parent involvement and student success may be an indirect relationship, with each of the two variables being related

Mike the Knife - continued on page 11
Mike the Knife - continued from page 10

to a third variable not commonly considered. The hypothesis for this indirect relationship would read, “Parents who are involved with the school cause the school to give preferential treatment to the child, which causes the child to perform better in school.”

Anyway, I did attend the PTA meeting, which turned out to be very interesting. The superintendent of the school district made a presentation about an upcoming bond issue election, and I found his enrollment projections, facility needs and financial information much more interesting than the typical PTA program.

It was announced that there would be an open house after the meeting, and parents were invited to go to their kids’ classrooms where samples of their work would be available for their perusal and an opportunity would be provided for parents to speak to the teachers about their children’s performance. I visited several classrooms and eventually wound up in my son’s classroom. I reviewed Mike’s materials and capitalized on the opportunity to speak with his teacher.

“I’m Mike Cárdenas’ father.”

“Oh, yes. Mike is such a dear child. It is a pleasure having him in my class.” While she spoke glowingly about my son, I was thinking of a research study I had recently read that said teacher-parent interviews tend not to be very successful because of three weaknesses in the discussion. First, teachers tend to speak very positively about the student and are very reluctant to bring up problems. Second, teachers fail to provide concrete evidence of student performance, generally speaking in general and abstract appraisals that provide little meaningful information to the parent. Third, teacher-parent interviews tend to stray into discussions of other children and parents rather than being focused on the child of the parent participating in the interview.

“Mike is doing so well in school,” she concluded.

“I’ve been monitoring his work, and I have just gone over samples of his work, and it doesn’t appear he is doing all that well in school this year.”

“Well, I’m glad you brought that up, because I have been wanting to schedule an interview with Mike’s parents. Do you have time to talk now?”

“I’ve got all the time in the world,” I answered, not being overly concerned about missing the punch and cookies being served in the school cafeteria.

“Well, Mike is doing very well in school when you consider his limitations. Please understand, Mike is not mentally retarded, he is just a slow learner. A slow learner is a child that is not mentally retarded, but on the other hand does not have all of the learning capability of an average student. Mike will never do well academically, but he can profit from schooling if we don’t expect too much from him. That’s the reason I have been wanting to speak with his parents. Expecting a high level of performance from him can only lead to frustration. My recommendation is to be satisfied with how he is doing and not push him. The most important thing for you to remember is not to push him. He is very slow in responding, but he generally tries.”

I strongly disagreed that my son, Mike, was a slow learner and attempted to argue with her diagnosis. I knew that Mike was slow in responding in both oral and written communications, but I knew the reason for it. Mike has always been rather unique in that he likes to think before speaking. Considering how many people I have met who are prone to speak before thinking, I had never considered Mike’s characteristic as a liability but rather as a unique asset.

“Look, I know that you are obviously disappointed, but you don’t seem to understand. Frankly it is difficult to explain in language that you can understand. It requires a background in education to understand concepts about capability, maturation and motivation, but take my word for it, Mike learns slowly, and above all don’t push Mike into trying to perform above his current level.”

I didn’t have the heart to inform the teacher that I was the chairman of the education department at St. Mary’s University and was continued from page 10

DR. JOSÉ A. CÁRDENAS AWARDED HONORARY DOCTORATE FROM LEHMAN COLLEGE

In June, Dr. José A. Cárdenas was awarded an honorary doctorate from Lehman College, City University of New York. Dr. Cárdenas is the founder and director emeritus of IDRA. During the college’s 30th annual commencement, Rosanne Wille, provost and senior vice president for academic affairs, presented the doctorate with the following remarks:

You have been a leader in education — in your home state of Texas and throughout the country — for more than 45 years. You served as an elementary school principal, high school superintendent and college professor of education. As director of the Intercultural Development Research Association and, indeed, throughout your career, you have worked for the principle that all students are entitled to an equal opportunity for education. You are recognized nationally for your expertise and for your advocacy on behalf of language-minority students and for a just and equitable system of financing public schools. You are the author of several books and have been honored by local, state and national education organizations for your outstanding service. The José A. Cárdenas [Center] in San Antonio — where you have lived and worked for several decades — is named in your honor. For your outstanding achievements in education and for your commitment to future generations of Americans, Lehman College is pleased to confer upon you the degree of Doctor of Humane Letters, Honoris Causa.

Congratulations, Dr. Cárdenas!
Financial Aid - continued from page 5

as offering a mechanism for automatic, electronic application to colleges and universities that belonged to the ExPan network. The ExPan network was a custom designed telecommunication hub that facilitated the electronic transfer of information between sending schools and prospective colleges.

With the advent of the Internet, student financial assistance today presents new possibilities. There is no longer the need to actually acquire a software package such as FundFinder or its successor ExPan. Schools only need access to the Internet.

One of the goals of the current U.S. administration is to have all schools connected to the Internet by the year 2000. As this happens, students will be able to access not just one, but a variety of on-line data bases with updated information about sources of funds for college and other important information to help them plan their college education.

I have selected four Internet sites that represent some of these possibilities to describe here. All of them can be accessed directly or through the IDRA web site (www.idra.org). Once at the IDRA web site, click the bar Resource Links. This page has three areas: national resources, other resources and educational links by subject. Select the educational links by subject section. It offers a variety of Internet resources including adult education, health, mathematics, science, technology, English as a second language, and financial aid and college information. Select financial aid and college information. Below is an analysis of four of the sites you can visit from this page. These four examples represent four different kinds of sites, each with a particular concentration although they all have some common characteristics. I will describe what makes each one unique.

Financial Aid and College Information Web Sites

The FinAid (Financial Aid Information Page) site was created by Mark Kantrowitz, author of The Prentice Hall Guide to Scholarships and Fellowships for Math and Science Students, and is sponsored by the National Association of Student Financial Aid Administrators (NASFAA). It presents a comprehensive guide to financial aid resources via the Internet. Some of the topics include general assistance, tools, discussion, sources of aid, government and school, and special interest.

In the general assistance area, there is a document called "Scam Alert," which I recommend. The document alerts readers about the many illegitimate Internet sites that charge people for information. These scams cost thousands of people many dollars every year. The alert also provides valuable information about how to distinguish between a legitimate site and a scam.

In the tools area, FinAid offers tools such as the Estimated Family Contribution (EFC) calculator and other calculators.

In the discussion area, there are links to mailing lists, newsgroups and other online communication services.

The sources of aid area presents links to other sites where students can find sources of financial aid grants, scholarships, federal, state and other loans, and loan counseling.

In the government and school area you will find a link to the Free Application for Federal Student Aid (www.fafsa.ed.gov). Federal and state governments require this application from all students attempting to receive government funds. Many colleges and universities also require the FAFSA. To fill out this form on-line, visitors click on the FAFSA link and follow the instructions on the screen. They can also download FAFSA and its associated instructions in Adobe Acrobat portable document format (PDF) and fill it out manually.

The other areas of FinAid include general information about financial aid books, software, and other resources and specialized information for international, disabled, female, minority, and gay and lesbian students and other special populations. Valuable links include personal finance, admission testing and career resources. This is a good site to start the search for financial aid and college information.

CollegeView was created by the Ohio-based CollegeView Publications, a nationwide educational publisher that reaches the 50 states and 27 countries worldwide. CollegeView is a free on-line college search service that profiles more than 3,700 colleges and universities. Visitors can take a multimedia virtual tour of hundreds of these schools. Many tours include audio clips and links to the actual college web sites. The site also serves colleges and universities as a recruitment venue. Thus, students can apply electronically to many of these institutions on-line. This is a good site to get a more concrete idea of what a campus is like, short of actually visiting it.

FastWeb (Financial Aid Search)

In September, the IDRA Newsletter focuses on high standards. Through the Web) maintains a data base of more than 400,000 scholarships. Students are required to set up a personalized profile describing their specific skills, abilities, interests and aspirations. The system matches the profile with the data base records and produces a list of options for the particular profile. Each option represents information about a scholarship possibility. The information includes the application deadline, grant amount, number of awards given, link to web site or e-mail for more information, award description, contact address, and some additional information such as phone and fax numbers and special requirements.

Notice that this site is sustained by advertisements. Users are not required to buy or pay anything.

The profile the user creates is maintained and he or she receives a password to protect its access. Users can go back, make changes to their profile and rematch it to get new possibilities, without having to re-type information.

The College Board On-line offers a comprehensive set of services related to college search, application and admission, entrance examinations, and financial aid. The web site has several features depending on whether the user is a student, parent, admission and enrollment staff person, financial aid staff person, counselor, or high school or college faculty member.

For example, for students and parents, the site offers a guide for planning for college, issues to consider for career search, how to prepare for entrance examination tests, guidance for choosing a college and financial aid tools. The site uses the ExPan data base to help students and parents search for scholarships and other sources of funds. Users need to develop a short profile that is matched against the data base, and a list of possible sources of funds is generated. Different from FastWeb, the profile is not maintained.

Searching for financial aid is free, and this site is not supported by advertisements. Naturally, the College Board sells some of
This two-day experience spurs participants to become more effective presenters. The workshop uses an experience-based model that has practical application for you in your job. Current, research-based principles provide a context for participants to collaborate in creating informative, practical and engaging presentations. The WOW is highly participatory and directly addresses participants’ needs and challenges. During the WOW, participants will:

- Experience a complete process for planning and conducting workshops.
- Review principles of adult learning.
- Contrast needs assessment approaches.
- Write and refine workshop objectives.
- Design innovative activities.
- Practice and expand facilitation skills.
- Network with other professionals.

The WOW is facilitated by Aurelio Montemayor, M.Ed., lead trainer in IDRA’S Division of Professional Development and creator of the highly popular WOW. With more than 25 years of professional training experience, he can teach your staff or group the techniques every trainer needs to conduct meaningful workshops!

The cost is $150 per participant. This includes all training materials and personalized instruction, plus a copy of the WOW Workbook ($25 value). Designed for people who are responsible for conducting training and workshops, the WOW is particularly useful for participants who bring workshop titles and materials that they want to work on.

To schedule a WOW for your group, call Rogelio López del Bosque, Aurelio Montemayor or Anna Alicia Romero at 210/684-8180.

Creating a Grade Book - continued from page 9

Conclusions

Technology will never be a substitute for a climate of openness and inclusion of minority students in higher education. The efforts of organizations such as IDRA and CoStep, through technology and otherwise, will only help to reduce the effects of these negative forces. As long as the current trend of exclusion continues, minority students will have a very difficult time achieving a college education.

Resources


Felix Montes, Ph.D., is a research associate in the IDRA Division of Research and Evaluation. Comments and questions may be sent to him via e-mail at idra@idra.org.

The following table shows a grade book.

<table>
<thead>
<tr>
<th>Name</th>
<th>Test 1</th>
<th>Test 2</th>
<th>Test 3</th>
<th>Final Grade</th>
</tr>
</thead>
<tbody>
<tr>
<td>George Washington</td>
<td>84</td>
<td>87</td>
<td>87</td>
<td>87</td>
</tr>
<tr>
<td>Student name</td>
<td>88</td>
<td>85</td>
<td>88</td>
<td>85</td>
</tr>
<tr>
<td>Student name</td>
<td>93</td>
<td>93</td>
<td>93</td>
<td>93</td>
</tr>
<tr>
<td>Student name</td>
<td>87</td>
<td>87</td>
<td>87</td>
<td>87</td>
</tr>
<tr>
<td>Student name</td>
<td>77</td>
<td>87</td>
<td>93</td>
<td>97</td>
</tr>
<tr>
<td>Student name</td>
<td>84</td>
<td>87</td>
<td>87</td>
<td>87</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Average</th>
<th>91</th>
</tr>
</thead>
</table>

**WOW: WORKSHOP ON WORKSHOPS**

The cost is $150 per participant. This includes all training materials and personalized instruction, plus a copy of the WOW Workbook ($25 value). Designed for people who are responsible for conducting training and workshops, the WOW is particularly useful for participants who bring workshop titles and materials that they want to work on.

To schedule a WOW for your group, call Rogelio López del Bosque, Aurelio Montemayor or Anna Alicia Romero at 210/684-8180.
EDUCATIONAL WEB SITES

Charter Schools
American Association of School Administrators (AASA)
703-528-0700
http://www.aasa.org/frontburner/charters/charter.htm
Experiments in Reform 512-463-1200 http://www.lbb.state.tx.us/ lbb/members/reports/charter/charter5.htm
Office for Civil Rights (OCR)
http://www.ed.gov/offices/OCR/index.html

General Education and Equity
Association for Supervision and Curriculum Development (ASCD)
800-933-ASCD http://www.ascd.org
Campbell-Kibler Associates, Inc.
http://www.tiac.net/users/ckassoc/
Council of the Great City Schools
202-393-2427 http://www.cgcs.org
Educational Resources Information Center (ERIC) Digests
1-800-LET-ERIC www.ed.gov/databases/ERIC_Digests
IDRA Desegregation Assistance Center – South Central Collaborative for Equity
210-684-8180 http://www.idra.org
Intercultural Development Research Association
210-684-8180 http://www.idra.org
National Center for Education Statistics (NCES)
STAR Center*
888-FYI-STAR http://www.starcenter.org
Texas Education Agency
512-463-9734 http://www.tea.state.tx.us
Texas Education Network (TENET)
512-475-9440 http://www.tenet.edu
U.S. Department of Education
http://www.ed.gov

Gender Equity
Center for Research on Women
781-283-2500 http://www.wellesley.edu/WCW/crwsweb.html
Center for Research on Parallel Computation (CRPC) – GirlTECH
http://www.crpc.rice.edu/CRPC/Women/GirlTECH/
Gender Equity Schools Initiative
http://activeliving.ca/activeliving/caherpnd/gesi.html
Women’s Educational Equity Act Resource Center
http://www.edc.org/WomensEquity

Magnet Schools
Broward County Public Schools
954-761-2454 http://www.browardschools.com/schools/magnet
Educational Innovations in Multiracial Contexts
800-443-3742 http://eric-web.tc.columbia.edu/abstracts/ed370232.html
Magnet Review Committee’s Magnet School Program
501-758-0156 http://www.magnetschool.com/

Magnet Schools of America
281-296-9813 http://www.magnet.edu
Magnet Schools of Texas
San Diego City Schools
http://magnet.sandi.net/
Schools of Choice – Miami-Dade County, Florida
http://magnets.dade.k12.fl.us/

National Origin Equity
Center for Applied Linguistics (CAL)
202-429-9292 http://www.cal.org/
ERIC Clearinghouse on Languages and Linguistics
202-429-9292 http://www.cal.org/ericc11/
ERIC Clearinghouse on Urban Education
http://eric-web.tc.columbia.edu/
National Association for Bilingual Education (NABE)
202-898-1289 http://www.nabe.org
National Clearinghouse for Bilingual Education (NCBE)
202-467-0867 http://www.ncbe.gwu.edu
Office of Bilingual Education and Minority Languages Affairs
http://www.ed.gov/offices/OCB/BLMA/
University of California Linguistic Minority Research Institute
805-893-2250 http://mbrinet.gse.ucsb.edu/

Race Equity
Beyond Prejudice
509-925-5226 http://www.eburg.com/beyond.prejudice/
ERIC Clearinghouse on Urban Education
http://eric-web.tc.columbia.edu/
National Civil Rights Museum – Virtual Tour
901-521-9699 http://www.mecca.org/crights

Sexual Harassment Prevention
American Psychological Association
Sexual Harassment: It’s Not Academic
800-421-3481 http://www.ed.gov/offices/OCR/ocrshpan-thtml

Technology in Education
Computer Based Education
International Society for Technology in Education (SITE)
541-346-4414 http://www.site.org
Learning with Technology Profile Tool
http://www.nocrce.org/capacity/profile/profwww.htm
South Central Regional Technology in Education Consortium
888-TEC-2001 http://sctec.org
Technology and Learning Journal
800-607-4410 http://www.techlearning.com

* The STAR Center is the comprehensive regional assistance center funded by the U.S. Department of Education to serve Texas. It is a collaboration of the Intercultural Development Research Association (IDRA), the Charles A. Dana Center at the University of Texas at Austin, and RMC Research Corporation.

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INTEGRATING TECHNOLOGY INTO YOUR CURRICULUM

Joseph L. Vigil, M.S.

Schools are not the only institutions using technology to enhance their goals and objectives. Technology is also used in the medical field to provide better assessment and treatment to patients. But oftentimes, patients feel like cogs on an assembly line. Lab technicians make patients sit in miserable positions and drink green gook, all to accommodate this magic machine. Then they want the patients to write a big check to pay for the privilege of using this machine. Later, their doctors focus on the computer printouts while ignoring the patient’s own testimony.

Good doctors realize the value of human interaction and guidance. Administrators, teachers and students should view technology in the same perspective. The needs and benefits of all students, including limited-English-proficient (LEP) students, should be examined closely when deciding to integrate appropriate technology that enhances, rather than drives, the curriculum. And all educational technology should be utilized with human interaction and guidance.

Too often, technology is used in education as an afterthought that may hit or miss in enhancing the curriculum and students’ learning. To ensure the proper use of technology, the lesson must dictate how technology will facilitate the learning process.

Technology equipment may not be just a computer, but may include graphing calculators, compasses, video equipment, overhead projectors and chalkboards. Choosing the appropriate technology for the mandated or desired curriculum takes some time and practice. A good resource for educators to start this journey is available via the Internet at http://ed.info.apple.com/education/techlearn/curric.html. The first section of this web site is entitled “Integrating technology into your curriculum” and includes a curriculum center, teacher success stories, getting started with technology and in-service education. Other sections of the web site are software, parents and families and more.

Another great resource is the Teacher’s Internet Use Guide developed by the STAR Center* (see box on Page 5).

Equity of access is an issue that must be addressed to ensure that all populations, including those in rural areas, have access to technology. The question of whether or not schools are required to provide access to technology for their students has been raised in the courts. The U.S. Supreme Court recognized the lack of equity in teaching tools in schools. It stated in Green County vs. School Board of New Kent County, Virginia, that school districts must actively work toward desegregation in every facet of school operation—racial composition, faculty, staff transportation, extracurricular activities and facilities. These have become known as the Green Factors. Since 1968, these six factors have been used by the federal courts as a basis for determining the degree to which equal educational opportunity and “unitariness” exists in a district under review by the court (Vigil, 1997). The Green Factors exist to ensure that all students have the same opportunities.

Districts that have provided staff and students with technology often do not ask teachers their opinion of how to set up the computers, what software to purchase or how to schedule students. Teachers are more likely to integrate technology into their curriculum if they have the opportunity to be involved in these decisions. Also, hands-on instructional technology training for teachers will make a world of difference. After a group of teachers have received training, it is a good practice for them to share and work with other teachers in the school or district. This approach builds capacity among the staff and moves a district ahead more quickly. Teachers will have more success in integrating technology if they have teacher and student mentors to teach, encourage and motivate them.

Learning English on the Internet has assisted LEP students whose teachers are seeing the benefits of computer networks: Communication with people actually living in other countries where the language is spoken improves the quality of students’ work. A notable example was a group of students who learned English by participating in international cultural exchanges via the Internet. These students made significantly more progress than did students in a control group who studied English traditionally with a textbook (Meagher, 1995).

Students are able to share information and ask other students questions about themselves and their communities while they are using language to receive and share information with their peers. This approach motivates the students to learn the language and the culture of other students.

Instructional focuses for teaching LEP students can be identified with the creative use of a computer. Computer activities can be designed to develop higher levels of language use in the content areas. When students create math story problems on “stacks” using Hyperstudio software they develop the English language and can share with and motivate other students.

Parents can develop appropriate story problems as well. They can use school computer labs to create and solve story problems with their children. The students, who quickly learn the computer software, can mentor their parents and teachers, thus developing teacher, parent and peer support.

Student interaction is a benefit in working with computers. Two or three students can share a computer and interact with the computer, Internet, software and each other.

Students need guidance and structure to use computers to enhance learning. Teachers may need to spend some time organizing the students and clearly defining the intended outcomes of their computer experiences.

Real world applications motivate students to use their skills to solve problems in real situations rather than the meaningless problems found in text books. The computer can link teachers and students to science and math work going on in the field such as the Jason Project, a virtual learning experience. The Jason Project is especially appealing because it combines the best of human
Integrating Technology - continued from page 15

innovation (Internet technology and electronic collaboration) with the best of human nature (the desire to understand and protect our fragile ecosystem). Jason X: Rainforests – A Wet and Wild Adventure (http://www.jason.org) will take teachers and students on a venture to explore the fossil, temperate and tropical rainforests of earth during this year-long program.

Computers can also aide teacher’s classroom management for student success:

The computer can ease the administrative burden teachers face; it can help manage incredible class discussions; it can take a group of students on a field trip to a far away world without ever leaving the classroom; it can provide teachers with a more powerful “chalkboard” than ever imagined; it can do all this and much more (Dockterman, 1991).

Many people worry that computers are replacing teachers in the classroom. Yet computers can never be expected to replace teachers. While teachers can use computers to supplement text books, activities and projects in their classroom, human interaction, guidance and modeling are vital to successfully integrate technology into the curriculum.

Teachers can model the appropriate use of technology for their students by using technology to facilitate learning and even for classroom management such as keeping track of attendance and calculating grades (see article on Page 8). Doing so shows students how technology can be a useful everyday tool.

Integrating technology into the curriculum is not an easy feat. It requires a great deal of thought and patience: thought to ensure the appropriate technology is being used to increase student achievement and patience to ensure that teachers feel comfortable with the new technology.

Teachers must be ready to move forward and make well-informed decisions about purchasing hardware and software and to adapt technology to fit our changing views and needs as educators.

Resources

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*The STAR Center is the comprehensive regional assistance center funded by the U.S. Department of Education to serve Texas. It is a collaboration of the Intercultural Development Research Association (IDRA), the Charles A. Dana Center at the University of Texas at Austin, and RMC Research Corporation.

HIGHLIGHTS OF RECENT IDRA ACTIVITIES

In May, IDRA worked with 5,719 teachers, administrators and parents through 55 training and technical assistance activities and 143 program sites in 10 states plus the United Kingdom. Topics included:

✦ Developing Family Friendly Schools
✦ Comprehensive Centers’ Reading Success Network
✦ Community Education Leadership Program
✦ Cognitive Academic Language Learning Approach (CALLA) Model Demonstration
✦ State Textbook Math 6 to 8 Review Panel

Participating agencies and school districts included:

✦ Los Angeles County Office of Education
✦ Garland Independent School District (ISD), Texas
✦ Cobre Consolidated School District, New Mexico
✦ Socorro ISD, Texas
✦ Texas Education Agency
✦ Mission ISD, Texas
✦ University of Texas at San Antonio Downtown

Activity Snapshot
A New Mexico school district, with the assistance of the IDRA Desegregation Assistance Center – South Central Collaborative for Equity, is implementing the second phase of a plan to restructure classroom processes to ensure greater access to learning opportunities for students. After an Office for Civil Rights investigation generated by a complaint under Title VI of the Civil Rights Act, the school district sought technical assistance in implementing a correction plan to protect the civil rights of language-minority students. The center provided training of trainer sessions on how to embrace students’ culture in the classroom, how to conduct appropriate assessment of language-minority students, and how to develop appropriate teaching styles and classroom practices that value the second language learning characteristics of students. The strategies helped teachers to provide equal access to learning opportunities for all children.

Regularly, IDRA staff provides services to:

✦ public school teachers
✦ parents
✦ administrators
✦ other decision makers in public education

Services include:

✦ training and technical assistance
✦ evaluation
✦ serving as expert witnesses in policy settings and court cases
✦ publishing research and professional papers, books, videos and curricula

For information on IDRA services for your school district or other group, contact IDRA at 210/684-8180.

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opportunities, and students experienced new learning opportunities because technology was used as a tool, not a subject. One of the real motivators was the use of computers to write friendly letters to key pals. Tutors also used computers to develop visuals. Finally, tutors communicated through video conferencing.

The video conference also met Texas’ essential element objectives in writing. Texas’ standards parallel many of the national standards that are essential in all states.

Tips for Video Conferencing

Using video conferences to enhance learning can be effective, but it also requires careful planning and attention to detail. IDRA and school personnel worked closely together to do this. The following suggestions from IDRA’s Charles Cavazos (1997) helped us prepare:

• **Start small.** Limit the number of sites to be linked. We started with students from two school sites in each video conference.
• **Familiarize yourself with using the technology.** School personnel were asked to find out what technology existed on their campuses (computers, fax machines, e-mail capability), where it could be found within the school and who had access to it. The schools we worked with had varying levels of capability. Some had e-mail in the classroom; others had e-mail only in the library, in another teacher’s classroom or in the principal’s office. Some schools had access to video conferencing within the district. In other cases, the video conference was held on a college campus, giving the students a chance to experience a little of college life. For many teachers this was their first experience with e-mail and video conferencing. They learned how to find the technology, who had it and how to use it. In some cases where the school’s computers or e-mail capability had not been made available to students, school leaders saw some of the possibilities for students’ use of technology. They have since changed the way technology is accessible in the school.
• **Do not wing it.** Distance learning sessions must be carefully planned if they are to be effective. We matched tutors as key pals, created agendas, reserved the video conference site, set

Tutor Video Conferencing Supports Standards

Implementation of Texas Essential Knowledge and Skills for Technology Applications, Middle School

§126.12. Technology Applications (Computer Literacy), Grades 6-8

**Foundations:** The student uses data input skills appropriate to the task. The student is expected to:

- Demonstrate proficiency in the use of a variety of input devices such as mouse or track pad, keyboard, microphone, digital camera, printer, scanner, disk, modem, CD-ROM, or joystick.
- Use technology terminology appropriate to the task.
- Perform basic software application functions including, but not limited to, opening an application program and creating, modifying, printing, and saving documents.

**Foundations:** The student complies with the laws and examines the issues regarding the use of technology in society. The student is expected to:

- Demonstrate proper etiquette and knowledge of acceptable use while in an individual classroom, lab, or on the Internet and intranet.

**Solving problems:** The student uses research skills and electronic communication, with appropriate supervision, to create new knowledge. The student is expected to:

- Integrate acquired technology application skills, strategies, and use of the word processor, data base, spreadsheet, telecommunications, draw, paint, and utility programs into foundation and enrichment curricula.

**Communication:** The student delivers the product electronically in a variety of media, with appropriate supervision. The student is expected to:

- Use telecommunication tools for publishing such as Internet browsers, video conferencing, or distance learning.

§110.22. English Language Arts and Reading

**Writing/purposes:** The student writes for a variety of audiences and purposes and in a variety of forms. The student is expected to:

- Write to inform such as to explain, describe, report, and narrate.
- Select and use voice and style appropriate to audience and purpose.
- Choose the appropriate form for his or her own purpose for writing, including journals, letters, editorials, reviews, poems, presentations, narratives, reports, and instructions.

**Tutors wrote descriptive-narrative presentations for the video conference.**

**Tutors developed their presentation and oral communication skills.**

**Tutors selected various writing forms to suit the content of their presentations.**

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Students Meet Peers - continued from page 2
Mike the Knife - continued from page 11

up transportation, checked the equipment available and helped tutors create scripts.

> Use an agenda (and stick to it). You can give students a sense of direction by mentioning the items to be covered. It emphasizes what is to be taught instead of the technology itself. Agendas also relay a sense of urgency since time is limited. Our agenda helped to meet the objectives we had set for the video conference. The hour and a half given for each video conference ended quickly. Because we followed the agenda, there was continuity to the presentations, and all students were able to present at least twice.

> Review the rules. Certain behaviors are necessary on behalf of all participants. There will be little learning if students speak up whenever they feel like it. The microphones pick up all noise and the cameras pick up all movement. Students need to keep side conversations to a minimum and avoid rustling papers, making noises with their feet and hands, and tapping pencils.

> Use a good facilitator. Our facilitators were enthusiastic and helped us stick to the agenda. Also, the facilitators were sensitive to students who were shy or nervous.

Conclusion

Preparing students for the 21st century will require that students be technologically able to compete globally. Since we live in an electronic age, computer skills will be necessary. All students need to be prepared. Often the students selected to participate in more advanced technological opportunities, such as video conferencing, are the students who are academically successful. Those who are struggling with their schooling can be left out, which hinders their learning even more.

In the Coca-Cola Valued Youth Program, many of the students selected for the program are students who are struggling with their academics. Having the Valued Youth tutors participate in video conferencing demonstrated how important it is to give all students access to advanced technology. Students learned to use technology and enhanced other areas of their learning. The video conferencing experience helped tutors develop oral, writing and researching skills. They learned about geography and demographics in researching information about their schools and cities. They learned the same about where other students came from. They learned about cultural differences – tutors from Great Britain met students from San Antonio; students from Washington, D.C., met students from Brownsville, Texas.

Additionally, the video conferencing opportunity placed tutors and their teachers in leadership roles on their campuses because they were considered the technology experts. They showed how technology can be used as a tool to enhance students’ literacy skills in oral and written communication.

Resources

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**DID YOU KNOW?**

**Student Computer Use**

Computers have become an essential tool in our society. Early exposure to computers may help students gain the computer literacy that will be crucial for future success in the workplace. Access to computers at school and at home allows students to retrieve information, manipulate data, and produce results efficiently and in innovative ways. Examining the extent to which students have access to computers at school and at home may be an indicator of how well prepared students will be to enter an increasingly technological workplace.

- Between 1984 and 1996, the percentage of 4th-, 8th-, and 11th-graders who reported using a computer at school at least once a week increased substantially.

- The younger students were more likely than older students to report that they used computers at school. In 1996, 72 percent of 4th-graders reported using a computer at school at least once a week, compared to 47 percent of 8th-graders and 50 percent of 11th-graders. However, 8th- and 11th-graders were more likely than 4th-graders to report using computers every day.

- In 1996, 79 percent of 4th-graders, 91 percent of 8th-graders and 96 percent of 11th-graders reported using a computer at home or at school to write stories or papers, a substantial increase from 1984. The percentage of students who used a computer to learn things also increased between 1984 and 1996 for all three grades.

- Students from high-income families were more likely to report using a computer at home or at school than students from low-income families. Between 1984 and 1993, the percentage of students who reported using a computer at school increased by similar amounts across family income levels. However, the increase in the percentage of students who used a computer at home was higher for students from families with higher incomes.

**Internet Access in Schools**

The Internet, with its vast array of information, can broaden the learning resources available through schools by providing teachers and students with connections to remote libraries, schools and government agencies. Information found on the Internet can broaden students’ knowledge base and having Internet access can prepare students for an increasingly technological workplace. Examining patterns of Internet access in schools may help determine how many students will be prepared to use this technology effectively in the future.

- Between fall 1994 and 1997, Internet access in public schools increased from 35 to 78 percent. However, in fall 1997, only 27 percent of instructional rooms had Internet access.

- Public schools with a high percentage of low-income students (71 percent or more of students eligible for free or reduced-price lunch) were less likely than schools with a low percentage of low-income students (less than 11 percent of students eligible for free or reduced-price lunch) to have Internet access in fall 1997.

- In fall 1997, public schools with a high minority enrollment (50 percent or more) had a lower rate of Internet access than public schools with a low minority enrollment (less than 6 percent). Moreover, public schools with a high minority enrollment had a smaller percentage of instructional rooms with Internet access than public schools with a low minority enrollment.

- Teachers were more likely than students in these schools to have access to e-mail, new groups, resource location services and the World Wide Web.

For 25 years IDRA has been working with schools to provide all children the best education possible. This effort has led the organization to research alternative and best pedagogical practices that ensure all children are included in the education process. IDRA has also investigated fundamental content areas that constitute the basis for an education that aligns what children are learning in the classroom with the reality of the world. It is in this way that IDRA has come to regard technology as a fundamental aspect of any educational curriculum that strives to prepare children for the great challenges of the 21st century.

Many schools have made significant progress in responding to the increasing needs of the technological revolution. They have acquired new equipment—televisions, VCRs, satellite dishes and computers. Some have provided training to their teachers. The most advanced have even developed curricular activities to integrate these technological tools into the regular curriculum.

IDRA’s concern is that this continuum of preparedness is predictably defined through specific types of schools. That is, the wealthier, the more urban, the more ethnically Anglo a school’s population, the more likely it will be advanced technologically. Concerns about this technological divide have surfaced with numbing regularity from different quarters, including the media. (See for example, “Internet Contains a Racial Divide on Access and Use, Study Shows,” published on April 4, 1998, in the Wall Street Journal.)

IDRA’s vision is that all schools receive the resources they need to prepare all their children. These resources include equipment and access to resources such as the Internet, teacher training and school reforms that allow the development and implementation of curricula that align school teaching and behavior with individual and societal needs. It is natural that some schools will fare better than others regardless. But such performance should not correlate with level of wealth, geographic location, or ethnic or gender distribution. The existence of such correlation reflects the intrinsic injustice in the current education systems; such correlation is what makes IDRA necessary.

Throughout its 25 years, IDRA has embarked on many projects to ameliorate the technological divide between rich and poor, mainstream and minority, boys and girls. Below are four examples.

- In the Engineering, Science and Math Increases Job Aspirations project, IDRA demonstrated how schools can change their pedagogy to empower girls with the understanding that they too are endowed with the capacity to pursue technological-driven careers, which have heavy emphasis in mathematics, science and engineering.

- Through the IDRA Coca-Cola Valued Youth Program, low-income, minority students at risk of dropping out of school connect through video conferences with similar students across the country and across the world to share experiences, while also improving their literacy level and self-esteem (see Page 1). This program creates an environment in schools that re-integrates these students and gives them glimpses of possibilities for themselves.

- Through IDRA training and ongoing assistance, teams of educators have hands-on opportunities to access educational resources via the Internet. For example, as part of the STAR Center, IDRA has created the Excellence and Equity through Technology Network (EETNet) to help educators bring the wonders of technology—the Internet in particular—into the classroom. IDRA has also facilitated forums for educators and parents through statewide interactive video conferences.

- Through the San Antonio Literacy Network (SALNET), IDRA helped increase literacy levels among low-income adults with the use of computer technology.

IDRA is committed to the goal that every child in the United States will have equal access to the educational experiences mediated by technology and that every school will promote the use of technology to further the social, emotional and academic growth of every child.
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