IDRA Focus:
Actionable Knowledge

IDRA Newsletter

ISSN 1069-5672 Volume XXXVI, No. 7 August 2009

Inside this Issue:

Actionable Knowledge

Putting Research to Work for School Community Action

by Laurie Posner, M.P.A.

Since as long ago as 1845, when the Boston School Board gave a uniform test to its elementary students, schools in the United States have been gathering data to gauge how well they are educating students (Coe and Brunet, 2006). These early report cards planted seeds for what would later become a plethora of reports on the performance of American organizations and systems.

Standardized report cards emerged relatively quickly in the field of health care. In the early 1860s, Florence Nightingale pressed for mortality statistics to be published by London hospitals to raise standards of hospital sanitation. By 1917, the American College of Surgeons was using a cross-system report to publicize the performance of almost 700 hospitals (Coe and Brunet, 2006).

In the field of education the "report card" became the centerpiece of individual student assessment and, by the end of the 20th Century, the central trope for state and national assessment of school effectiveness. In its *Round-up of National Education Report Cards*, the Center for Public Education (2007) identified more than a dozen such reports, spanning a spectrum from pre-kindergarten to post-secondary education, from K-12 school funding to college scholarships, and from measures of international standing to state, school district and individual student performance.

Such report cards include the National Center for Education Statistics' well-known "National Assessment of Educational Progress" (or NAEP) reports, the U.S. Chamber of Commerce's *Leaders and Laggards: A State-by-State Report Card on Educational Effectiveness*, Education Week's *Quality Counts* series, and the National Center for Public Policy and Education's "Measuring Up" study. As the field has become increasingly meta-analytic, even assessment of assessment, such as *The State of State Standards* produced by the Thomas B. Fordham Foundation, has become commonplace.

Rankings of our nation's performance in public education in these last few decades have tracked business objectives, advocacy aims

Actionable Knowledge – continued on Page 2

Actionable Knowledge *– continued from Page 1*

and policy preoccupations. In 1983, *US News and World Report* published its first edition of *America's Best Colleges*. At that time, blue-collar workers were being hit hardest by the recession, and low-income students had increasingly limited access to public higher education (Fligstein and Shin, 2004). But college-going rates and college revenues rose dramatically in the 1980s, with tuition increasing during the period by 106 percent (Levine, 1994).

Such increases justified the marriage between ranking and advertising. A report card, in this context, was as much about packaging schools for consumer choice as assessing quality.

The link between outcomes-based assessment (accountability) and consumer choice also was famously inscribed in the *No Child Left Behind Act of 2001*, which envisioned accountability ratings and parent choice as twin levers for raising performance locally and across school systems.

As a result of widespread rankings and ratings, more data are available to Americans than ever before about how our schools are doing. At a mouse click, we can locate public schools nationwide by name, find demographics and dropout rates, and compare student outcomes on state-mandated tests, national standards, and college entrance exams.

Information must be available to people who need it most at the district- and school-level and it must be crafted around organizing and action.

But raising national awareness of school performance has not necessarily coincided with better national outcomes. Graduation rates have hovered at about 75 percent since the 1960s (Heckman and LaFontaine, 2007), and disparities in, for example, fourth grade reading and mathematics outcomes over the last decade have persisted (NCES, 2009).

You might say that this is to be expected. Research, report cards and the presentation of data cannot be counted on to change school systems. After all, the correlations between research, policy and practice are inherently messy. School systems are complex organic organizations.

And policymaking for public education is similarly complex. As Vivien Tseng points out in a review of the role of research in policymaking and practice, research is "rarely used in… a clear-cut linear way [and] rarely offers a definitive answer to any policy or practice question… requiring instead that practitioners discern if research evidence is relevant to their particular needs and judge whether they can use it given political, budgetary and other constraints" (2008).

Still, reports and indicator systems contribute far less then they could to

Actionable Knowledge *– continued on Page 8*

In This Issue...

The Intercultural Development Research Association *(IDRA)* is a non-profit organization with a 501(c)(3) tax exempt status. The purpose of the organization is to disseminate information concerning equality of educational opportunity.

The *IDRA Newsletter* (ISSN 1069-5672, © 2009) serves as a vehicle for communication with educators, school board members, decision-makers, parents, and the general public concerning the educational needs of all children in Texas and across the United States.

Portions of the contents of this newsletter were developed under a grant from the U.S. Department of Education. However, those contents do not necessarily represent the policy of the Department of Education, and endorsement by the federal government should not be assumed.

Publication offices:
5815 Callaghan Road, Suite 101
San Antonio, Texas 78228
210/444-1710; Fax 210/444-1714
www.idra.org contact@idra.org

María Robledo Montecel, Ph.D.
IDRA President and CEO
Newsletter Executive Editor

Christie L. Goodman, APR
IDRA Communications Manager
Newsletter Production Editor

Sarah H. Aleman
Secretary
Newsletter Layout

Actionable Knowledge

Dear reader,

As this edition goes to print, almost all governors are pressing for changes in the nation's core educational standards. Their aim is to create more coherence in a heretofore patchwork system, to promote college and career readiness, and to benchmark U.S. standards to those of the world's top-performing countries. Whether these changes yield better results for children has everything to do with knowledge and how we act on it to transform teaching and learning.

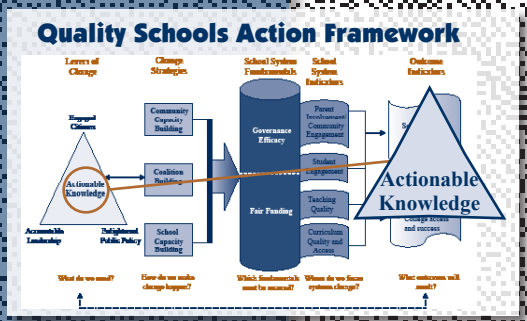
If, for example, new standards are shaped more by politics than by sound pedagogy, they will not truly benefit children.

If standards are internationally benchmarked, but we fail to infuse teacher preparation and professional development programs with the knowledge teachers need to better serve diverse students, they will not fully benefit children.

If standards drive accountability, but we fail to formulate more enlightened education policy and secure funding equity for schools, they will not fully benefit children.

And, if standards shape a spate of new national report cards and online databases, but educators and families members have little access to the data or data is not presented in a way that gives them the tools to strengthen schools, the standards will not truly benefit children.

In short, to realize the promise of these changes, we must infuse the best of what we do with the best of what we know about how to transform schooling. Actionable knowledge, the focus of this August edition of the *IDRA Newsletter*, intends precisely this outcome. In "Actionable Knowledge: Putting Research to Work for School and Community Action," Laurie Posner, MPA, describes the dramatic growth of educational research and data in recent decades, why a profusion of knowledge has all too infrequently translated into action and what can be done to close the gap. "Pedagogical Content Knowledge: What Matters Most in the Professional Learning of Content Teachers" by Dr. Adela Solís examines the kinds of knowledge needed by content teachers and why pedagogical content knowledge must be a focus.



Also in this edition, you will find an award-winning essay by Jamilleth Hernández, an eighth grade tutor with the IDRA Coca-Cola Valued Youth Program at Dr. Javier Saenz Middle School in La Joya, Texas. Seeing school through the eyes of Ms. Hernandez reminds us, as nothing else can, why informed action to improve public education is urgent, why we must commit as a community to schools that work for all children, and why what we do in the lives of youth each day matters so very much.

María Robledo Montecel

Pedagogical Content Knowledge

What Matters Most in the Professional Learning of Content Teachers in Classrooms with Diverse Student Populations

by Adela Solís, Ph.D.

The professional learning of teachers is an ongoing process of knowledge building and skill development in effective teaching practice (NPEAT, 2003). In the context of a diverse society, it is the process through which teachers in high minority schools master both content and diverse student pedagogy.

In its pursuit of equity in education, the Intercultural Development Research Association continually provides many professional learning opportunities to teachers of diverse student populations. These represent an important part of IDRA efforts to increase teaching quality and equity inside today's classrooms. IDRA president Dr. María "Cuca" Robledo Montecel describes this major reform in a framework for quality education, the Quality Schools Action Framework (2005).

Through several of IDRA's professional development models, like Math Smart!, Science Smart! and Coaching and Mentoring of Novice Teachers, coaching and mentoring are provided to beginning teachers and to other teachers who strive to provide rigorous and relevant content instruction to English language learners and other culturally diverse students. Teachers of mathematics, science and language are particularly looking for support as these are content areas where many students perform poorly on academic tests often due to content teachers' lack of rigorous and accurate preparation. Dr. Abelardo Villarreal cites teaching quality as a major principle for an evidence-based secondary education plan for English language learners (2009).

Professional development and teacher preparation research also support the importance of teaching quality and further identify content specific pedagogy as a key ingredient in teaching quality. This is the first of two related articles. It provides insight from research pertinent to professional learning, theory of diverse pedagogy, content learning, and how these can be integrated into a professional development program for teachers in a multicultural, equity-conscious society.

Focus on Teacher Professional Learning in Content Areas

Many government-initiated school reform programs in the United States focus substantially on the professional learning of teachers (see Hassel1, 1999; NPEAT, 2003). Content area teaching experts similarly seek the best knowledge on how to prepare teachers of adolescents to meet the demands unique to their specialization (Borko, 2004; Shanahan and Shanahan, 2008). The paucity of research on content teaching in a diverse classroom as a pressing issue in teacher education has received special focus in the United States as well as in other countries, like the Netherlands, Britain and Australia.

Not surprisingly, this issue has emerged with even greater import as a result of low student achievement and the prevailing student achievement gaps in the critical subject areas of reading, writing, mathematics and science. The answers to the critical question of how to most effectively reach students clearly tell us this: teaching matters, as does the learning of teachers. Furthermore, fast demographic changes require that content teaching reflect diverse pedagogy-specific teaching and learning practices.

Importance of Professional Learning through an Equity Lens

If all content teachers are formally trained, why is professional learning still necessary? Both research and first-hand observations of teaching and learning dynamics have discovered that what a teacher knows and what he or she does and believes have a major influence on how students learn. Most importantly, we know that these are

Pedagogical Content *– continued on Page 5*

Pedagogical Content *– continued from Page 4*

dynamic behaviors and dispositions that evolve over time and include the right types of content-specific skills often referred to as *pedagogical content knowledge*, or PCK (Gess-Newsome and Lederman, 2001).

What is Pedagogical Content Knowledge?

The concept of pedagogical content knowledge is not new. The term gained renewed emphasis with Lee Shulman (1986), a teacher education researcher who was interested in expanding and improving knowledge on teaching and teacher preparation that, in his view, ignored questions dealing with *the content of the lessons taught*. He argued that developing general pedagogical skills was insufficient for preparing content teachers as was education that stressed only content knowledge. In his view, the key to distinguishing the knowledge base of teaching rested *at the intersection of content and pedagogy* (Shulman, 1986).

Shulman defined pedagogical content knowledge as teachers' interpretations and transformations of subject-matter knowledge in the context of facilitating student learning. He further proposed several key elements of pedagogical content knowledge: (1) knowledge of representations of subject matter (content knowledge); (2) understanding of students' conceptions of the subject and the learning and teaching implications that were associated with the specific subject matter; and (3) general pedagogical knowledge (or teaching strategies). To complete what he called *the knowledge base for teaching,* he included other elements: (4) curriculum knowledge; (5) knowledge of educational contexts; and (6) knowledge of the purposes of education (Shulman, 1987). To this conception of pedagogical content knowledge, others have contributed

valuable insights on the importance and relevance of the linguistic and cultural characteristics of a diverse student population.

While other education scholars since the 1990s have expanded and promoted the development of PCK among content teachers through both teacher preparation (pre-service) and professional development (inservice), "valid" research failed to address the issue of linguistically and culturally different students as a mediating variable that should be factored into any study of effective teaching practices. However, proponents of the PCK concept say that there is special value in their work in that it has served to re-focus educators' attention on the important role of subject matter in educational practice and away from the more generic approach to teacher education that dominated the field since the 1970s (Gess-Newsome and Lederman, 2001). While the specific term, PCK, is just gaining momentum in U.S. literature, we see it addressed in published content standards by professional teaching associations as reviewed in *In Time Project* (2001) and in a number of content area textbooks, such as Schartz's *Elementary Mathematics Pedagogical Content Knowledge* (2008).

Nevertheless, professional development is required in most states and certainly through national legislation, such as the *No Child Left Behind Act* and its various school-based programs. Certainly, dismal math and science test results have led to intensive scheduling of training for math and science teachers. In-depth planning about the specific type of knowledge and skills these teachers needed is not always evident. Below are a some key findings and implications of pedagogical content knowledge in the teaching literature that can contribute to awareness of the importance of PCK, as contributed by van Driel, Verloop and Vos (1998); Goldston (2004); Loughranm, Mulhall and Berry (2004), and others.

Highlights of Key Findings and Principles of Pedagogical Content Knowledge

Definitions

- Pedagogical content knowledge is a special combination of content and pedagogy that is uniquely constructed by teachers and thus is the "special" form of an educator's professional knowing and understanding.
- Pedagogical content knowledge also is known as *craft knowledge*. It comprises integrated knowledge representing teachers' accumulated wisdom with respect to their teaching practice: pedagogy, students, subject matter, and the curriculum.
- Pedagogical content knowledge must be addressed within the context of a diverse pedagogy.

How PCK is Developed

- Pedagogical content knowledge is deeply rooted in a teacher's everyday work. However, it is not opposite to theoretical knowledge. It encompasses both theory learned during teacher preparation as well as experiences gained from ongoing schooling activities.
- The development of pedagogical content knowledge is influenced by factors related to the teacher's

Pedagogical Content *– continued on Page 12*

Immigrant Students' Rights to Attend Public Schools

The National Coalition of Advocates for Students (NCAS) 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. These fliers provide information for immigrant parents about the rights of their children to attend local public schools this fall. Though NCAS has closed, IDRA continues to make this alert available. The copy of the alert below and on the following page may be reproduced and distributed as well.

School Opening Alert

In 1982, the U.S. Supreme Court ruled in *Plyler vs. Doe* [457 U.S. 202 (1982)] that children of undocumented workers have the same right to attend public primary and secondary schools as do U.S. citizens and permanent residents. Like other students, children of undocumented workers 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.

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* 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:

META	Nationwide	(617) 628-2226 (English/Spanish)
NY Immigration Hotline	Nationwide	(212) 419-3737 (English/Spanish)
MALDEF – Los Angeles	Southwest/ Southeast	(213) 629-2512 (English/Spanish)
MALDEF – Chicago	Illinois	(312) 427-0701 (English/Spanish)
MALDEF – San Antonio	Southwest	(210) 224-5476 (English/Spanish)
MALDEF – Washington D.C.	Nationwide	(202) 293-2828 (English/Spanish)

Please copy and distribute this flier.

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 de padres 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 revelen 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.

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 solicitan 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*) le prohibe 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 y otros administradores o personal docente – deben saber que no están bajo ninguna obligación legal de poner en vigor las leyes de inmigración de los EEUU.

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

META	Nacional	(617) 628-2226	(Inglés/Español)
NY Línea de Urgencian de Inmigración	Nacional	(212) 419-3737	(Inglés/Español)
MALDEF – Los Angeles	Sudoeste/ Sudeste	(213) 629-2512	(Inglés/Español)
MALDEF – Chicago	Illinois	(312) 427-0701	(Inglés/Español)
MALDEF – San Antonio	Suroeste	(210) 224-5476	(Inglés/Español)
MALDEF – Washington D.C.	Nacional	(202) 293-2828	(Inglés/Español)

Favor de copiar y distribuir esta hoja informativa.

Student Voices

IDRA's Coca-Cola Valued Youth Program is celebrating its 25th anniversary in the United States as well as its 10th anniversary in Brazil. To celebrate these two milestones, IDRA sponsored an essay contest in the United States. Six students received prizes. Below is the essay of the first place winner at the middle school level.

The Change of a Lifetime

by Jamilleth Hernandez, Eighth grade, Dr. Javier Saenz Middle School, La Joya, Texas

Throughout my life, I have always been taught to believe that I was no good, that I could never do anything right, and that maybe I should have never been born. I felt that my parents and former teachers were always disappointed in me because of my low grades. In truth, I was even disappointed in myself because I knew that I was a good student capable of getting really good grades, but because of the stuff that I would hear, I too, began to believe what they believed of me, and my grades went down. I became very rude and disrespectful. I mean, if I had no respect for myself, then how was I expected to show respect to anyone else? Even though I continued to go to school, I did so because I had to. And so went my life until I moved to Texas to live with my father and stepmother after a tragic accident.

Although you might say that I am still very young to experience "life," I have had many struggles and hardships that have impacted me and that have led me to a place of self-doubt, low self-esteem and low self-worth. It didn't help that as a 9-year-old girl I was blamed for the death of my little brother, Damian. My mother hated me so much for what happened that dreadful day that she would announce to anyone who would listen that her little boy's death was my fault. "You should have been watching him," she would exclaim. And I guess I should have, but what did I know, I was only nine.

For the longest time, I did feel responsible for his death. After this happened, I came to Texas to live with my father to get away from all that had happened but mostly to get away from my mother's constant physical and verbal abuse. It got to the point that she couldn't even look at me anymore. I felt totally lost and alone, and I was hoping that with the move, things would get better. I didn't think that it could possibly get any worse, that's for sure.

Even though I was just trying to get away from my problems, I knew that this move was something I had to do to keep me from going crazy. Now that I look back, moving here was the best thing I could have ever done. School had already started when I moved here, so I got registered right away. As I arrived to my first day of school, my counselor gave me my schedule. Along with my regular boring classes such as English and math, I also saw that my schedule had a class called "VYP." What was that all about, I wondered? But I didn't question it. I figured it was another one of those dumb and boring classes that I would have to take.

When fourth period finally came around, I went to the gym where I would meet my VYP teacher. She was

continued on next page

Actionable Knowledge *– continued from Page 2*

school improvement. In IDRA's experience, they fall short for several reasons. First, their purposes and intended audiences are often diffuse or ill-defined. Second, they tend to focus too much on ranking and not enough on exemplary practices and models for action. Third, many data sets are overly tied to consumer choice and not enough to citizen engagement. Finally, despite vast improvements, research remains inaccessible to many people, bringing knowledge online but not infusing it into capitols, classrooms and kitchen-table problem-solving (Robledo Montecel, 2006).

Just as a father who finds out that his son has earned a "D" in algebra can do little with this data without information on how to make a difference, school, community and family leaders need more than annual yearly progress (AYP) scores and discrete outcome data to make a difference in schools that are struggling. Information must be available to people who need it most at the district- and school-level and it must be crafted around organizing and action.

"Actionable knowledge," as researcher Chris Argyris has written, "is not only *relevant* to the world of practice, it is *the knowledge that people use to create that world"* (1993, emphasis added).

The good news is that with good information, school, community and

Actionable Knowledge *– continued on Page 9*

really pretty, but then she began to talk and I thought, "Here we go again." All I heard for the first few minutes was, "blah, blah, blah, and blah, blah, blah, helping little kids." That's when I began to tune in. She explained what the Coca-Cola Valued Youth Program was all about and it sounded like a lot of fun. By that time, I was all ears, so I continued listening closely! My teacher told us that this class was open to those kids who she thought would be "good for the program" and who could be "positive role models" for our school and for the kids we would be tutoring. I can remember the feeling I got when she said those words because I had never been told that I could be "good" at anything, much less that I could be a positive "role model." It made me feel really special!

Then she mentioned that we would be getting paid for helping the kids. WOW!!!!! I started to think that this was my lucky day! I was going to do something that I knew I would really enjoy, and I was going to get paid to do it. How awesome was that? She said that we would be starting immediately the next day, so you can imagine what the rest of the day felt like. I just wanted it to be "tomorrow" already, and I have enjoyed every day since.

Because the school is right behind the school that I attend, we walk as a group. It just so happens that the kids that I help are outside in the playground when we are walking, and when the kids see me coming, they start calling my name and waving at me. Boy, imagine the feeling of someone who is happy to see you! It is the most awesome feeling in the world; a feeling that I thought I would never have. On the day that my counselor gave me that schedule, I would have never thought how life-changing those three little letters on my schedule would be. In an instant, my whole life changed. It was truly amazing.

The highlight of my day has become seeing those little kids and knowing that I am doing something worthwhile and respectful. But to know that I am doing something positive for others and that those kids look up to me has been the best reward of all. I love seeing the kids, and sometimes I imagine that these little kids with great big smiles and missing front teeth are those of my little brother sending his smiles to me from heaven. I know now that my brother never blamed me for what happened that awful day that I lost him forever, and I know that he is proud of his big sister and that he loves me. He is my Guardian Angel.

My mother still doesn't care too much about me, and I don't talk to her much. But that's ok. I'm doing really good in school now, and I have lots of friends who like me. My father loves me, my stepmother loves me, my teachers love me, but most important, I love myself. And I love what I am doing to make the life of these little kids a little better.

My teacher once said that maybe the high school will offer VYP to their students. I sure hope so, because I don't want VYP to ever end. But if it does, that is ok too because I know that I will be alright. I have a purpose now because of this program, but most important is that I now know that I have a reason for being alive. Thank you Coca-Cola for caring enough to provide us with such a valuable and life-changing experience. For I truly believe that if it hadn't been for the Coca-Cola Valued Youth Program, I wouldn't have found the real me.

For more information on the Coca-Cola Valued Youth Program, contact IDRA at 210-444-1710, contact@idra.org, or visit http://www.idra.org/Coca-Cola_Valued_Youth_Program.html/.

Actionable Knowledge *– continued from Page 8*

family leaders can and are making a difference. In *Organized Communities, Stronger Schools*, for example, Kavitha Mediratta and her colleagues at the Annenberg Institute for School Reform (2008) chronicle seven community organizing efforts that use actionable knowledge in school reform. In Oakland and Philadelphia, community and school action led to new small schools that resulted in higher attendance and improved graduation rates. In Miami, a combination of improvements in literacy programming for elementary students with community engagement raised student outcomes on the Florida Comprehensive Assessment Test (FCAT).

According to Mediratta and her colleagues, the most effective organizing combines "community members' knowledge… and insights… with analyses of administrative data and best practices identified by education research. The combination of data and local knowledge enabled groups to develop reform initiatives uniquely suited to local school conditions and needs." (2008)

The Annenberg findings echo those of Janice Petrovich at the Ford Foundation, who, in a reflection on the foundation's investments in community involvement in education from 1950 to 1990 (2008) points out that "no matter how well crafted or well intentioned [school] reforms may be, they will not

Actionable Knowledge *– continued on Page 10*

Actionable Knowledge *– continued from Page 9*

endure without community support – and that community support is won not through public relations campaigns, but through active participation." Promoting such participation requires the capacity "to clearly identify research questions and data needs, to find ways of obtaining these data and to use research evidence to bolster their arguments."

Such findings also have been central to IDRA's experience. IDRA's partnership with the nonprofit organization, ARISE, is one example. ARISE is a faith-based organization, founded in the late 1980s, dedicated to supporting children for educational success and strengthening families from within. For the Latina leaders at ARISE working to improve Texas border communities, a guiding tenet is to "look around you, assess what's going on, make a response, evaluate and celebrate."

In keeping with this principle, IDRA designed a series of training sessions on family leadership in education with ARISE centers through IDRA's Parent Information and Resource Center. Through these forums, parents have shared concerns about how their children were doing in school and looked together at data on dropout rates, college-going rates, and student test scores. In deepening their knowledge, a group of families in the Rio Grande Valley has been moved to action: This summer, ARISE families formed a PTA *Comunitario* to formalize their role as advocates to improve the quality of education. Through the PTA *Comunitario*, family leaders will consider why school outcomes are not matching up with their hopes and goals for their children and will form partnerships with their local neighborhood public schools for action.

Research and experience show that knowledge must be made actionable in order to have impact. Actionable knowledge:

- Is framed around the right questions – for example, asking how schools as systems can go beyond dropout prevention and recovery to strengthen "holding power" across grades.
- Tracks not just school outcomes but the conditions that give rise to them and effective practices – providing teachers, administrators, family and community members the data they can use to make a difference.
- Presents data in context – including meaningful comparisons among peer schools and districts; and information on school funding, resources and data that are disaggregated by student groups to help people assess and improve both educational quality and equity.
- Bridges data divides – presenting data online and in-person, in families' first languages; answering burning questions and embedding salient knowledge into community forums, school-community partnerships, and professional development for educators and school leaders.

Incorporating these features in partnerships, like the ones profiled above, researchers, educators, and family members are building on the data-gathering strengths of the accountability era in their efforts to improve schools. To realize our aspirations for children more broadly, we need to make sure that these examples become the rule rather than the exception.

Get more info online at IDRA Newsletter Plus

- **IDRA's School Holding Portal**
- **Podcast on knowledge building and reflections**
- **Resources on actionable knowledge**

www.idra.org/newsletterplus

Resources

Argyris, C. *Knowledge for Action: A Guide to Overcoming Barriers to Organizational Change* (San Francisco, Calif.: Josssey-Bass Inc., 1993).

Coe, C.K., and J.R. Brunet. "Organizational Report Cards: Significant Impact or Much Ado about Nothing?" *Public Administration Review* (January 2006) Vol. 66, No. 1, pp. 90-100(11).

Center for Public Education. "Round-up of National Education Report Cards," web site (2007).

Fligstein, N., and Shin, T. "The Stakeholder Value Society: A Review of the Changes in Working Conditions and Inequality in the United States, 1976-2000," in *Social Inequality* (Kathryn M. Neckerman, ed.) (New York, N.Y.: Russell Sage Foundation, 2004) pg. 407.

Heckman, J., and P.A. LaFontaine. *The American High School Graduation Rate: Trends and Levels* (Bonn, Germany: The Institute for the Study of Labor. December, 2007).

Levine, A. *Higher Learning in America, 1980-2000* (Baltimore, Md.: Johns Hopkins University Press, 1994).

Mediratta, K., and S. Shah, S. McAlister, D. Lockwood, C. Mokhtar, N. Fruchter. *Organized Communities, Stronger Schools: A Preview of Research Findings* (Providence, R.I.: Annenberg Institute for School Reform at Brown University, 2008).

National Center for Education Statistics. *The Condition of Education: Learner Outcomes* (Washington, D.C.: May 2009).

Petrovich, J. *A Foundation Returns to School: Strategies for Improving Public Education* (New York: Ford Foundation, 2008).

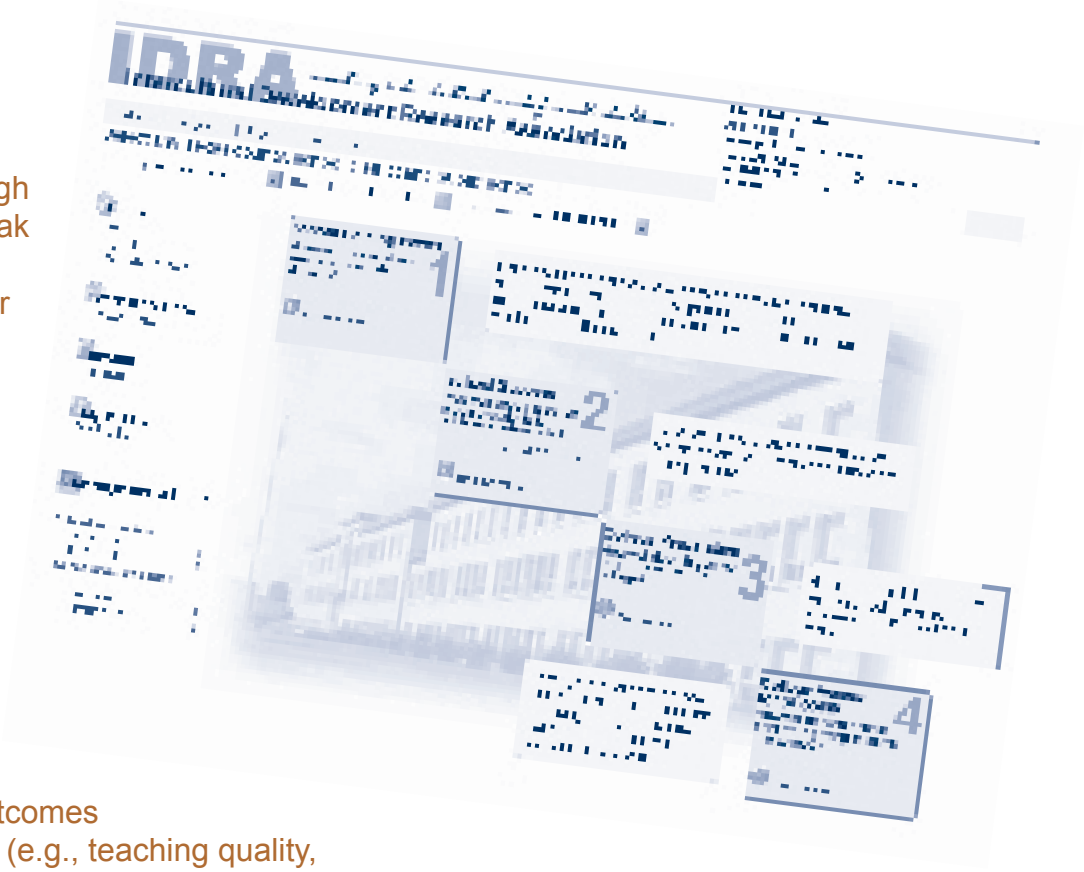
Robledo Montecel, M. "Knowledge and Action – From Dropping Out to Holding On," *IDRA Newsletter* (San Antonio, Texas: Intercultural Development Research Association, November-December 2006).

Tseng, V. "Studying the Use of Research Evidence in Policy and Practice," William T. Grant Foundation 2007 Annual Report (New York, N.Y.: William T. Grant Foundation, 2008).

Laurie Posner, M.P.A., is an education associate in IDRA's Support Services. Comments and questions may be directed to her via e-mail at comment@idra.org.

Visit IDRA's School Holding Power Portal

Designed to help educators and community members find out how well their high school campus is preparing and graduating students, what factors may be weakening school holding power, and what they can do together to address them.



What's Included…

- Key data to help you determine whether high dropout rates and weak school holding power are a problem for your school.
- Links to attrition rates for every county in Texas, based on IDRA's annual attrition research and the disappearance rates for every campus.
- Easy-to-use tables and comparison graphs on student outcomes and the core features (e.g., teaching quality, curriculum quality and access) that make up strong schools.
- E-mail feature you can use to share data with others and attach charts or graphs, keep track of your own notes, or call a community-school meeting to work on a specific issue.

"Community oversight is a critical missing ingredient in effective and accountable dropout prevention efforts at the local level. We also know that schools and communities working together have the capacity to craft and carry out effective solutions that will make a difference for students."
– Dr. Robledo Montecel, IDRA president & CEO

http://www.idra.org/portal

Pedagogical Content *– continued from Page 5*

personal background and by the context in which he or she works.

- Pedagogical content knowledge is deeply rooted in the experiences and assets of students, their families and communities.

Impact of PCK

- When teaching subject matter, teachers' actions will be determined to a large extent by the depth of their pedagogical content knowledge, making this an essential component of their ongoing learning.
- Pedagogical content knowledge research links knowledge on teaching with knowledge about learning, a powerful knowledge base on which to build teaching expertise.

Pedagogical Content Knowledge in Core Content Areas

As noted above, PCK illustrates how the subject matter of a particular discipline is transformed for communication with learners. It includes recognition of what makes specific topics difficult to learn, the conceptions students bring to the learning of these concepts, and teaching strategies tailored to this specific teaching situation. To teach all students according to today's standards, teachers indeed need to understand subject matter deeply and flexibly so they can help students map their own ideas, relate one idea to another, and re-direct their thinking to create powerful learning. Teachers also need to see how ideas connect across fields and to everyday life. These are the building blocks of pedagogical content knowledge.

It is critical, however, that pedagogical content knowledge be subject-specific. What are some examples PCK in the core subject areas of language, science, mathematics and social studies? And how does this knowledge compare with other knowledge that teachers traditionally master? The box on the next page shows a comparative view of teaching standards that demonstrate differences in teaching expectations pertinent to content knowledge, knowledge of general pedagogy, and pedagogical content knowledge (NBPTS, 1998). Standards organized in this manner are a ready-made guide for practitioners to use in directing the specialized learning of their content teachers. Further, this distinction in knowledge bases can serve to assess the overall planning and delivery of content teacher professional development.

Professional Development that Supports Development of PCK

It is not uncommon for professional development leaders to work with schools that have concentrated all of their professional development efforts in only one area, such as subject matter knowledge or with schools that have designed professional development plans around only pedagogical concerns, such as effective instructional techniques. Yet, they have not netted the hoped-for results in student learning as evidenced in poor performance on achievement tests.

PCK theory questions the value of knowing everything about a subject if one does not understand how students learn it or the value of being the very best at instructional strategies if those strategies cannot deliver high quality subject matter knowledge. What is needed instead is to orchestrate teacher learning opportunities that are centered on the specific ways of knowing and doing within a given subject or, on pedagogical content knowledge.

Fortunately, current professional development principles *do* guide the process of teacher learning in ways that support PCK. We have best practices research that delineates the best overall approach, context, strategies, and content of professional development (NPEAT, 2003; von Frank, 2008). Below are eight of several professional development principles that foster actions (or practices) that, when well orchestrated, can result in the solid PCK in all content teachers.

Fortunately, current professional development principles do guide the process of teacher learning in ways that support PCK. We have best practices research that delineates the best overall approach, context, strategies, and content of professional development.

- The performance of effective teachers is significantly influenced when they are involved in shaping their own learning experiences and are deeply engaged in the learning process.
- Continuous professional development that uses feedback and reflection deepens teachers' knowledge and skills.
- The best learning through professional development is embedded in the daily work of teachers.
- Professional development should be primarily school-based and built into the day-to-day work of teaching.
- The content of professional development should focus on what students are to learn and how to address the different problems students may have in learning the material.
- Professional development should be organized around collaborative problem solving.
- Professional development should provide opportunities to understand the theory underlying the knowledge and skills being learned.
- Professional development is

Pedagogical Content *– continued on Page 13*

Comparative View of Teaching Standards

	Content Knowledge	Knowledge of General Pedagogy	Pedagogical Content Knowledge
English Language Arts	• Is well versed in the art of writing • Thoroughly understands the different stages in the complex process of writing • Knows how to conduct informal writing activities (free writing, daily journals, etc.)	• Sets high expectations for all students • Modifies and adjusts the pacing and mode of instruction to accommodate students • Integrates assessment into instruction to promote the learning of all students	• Sets high expectations for the language development of each student • Leads students in discussions and sharing of ideas about writing • Is aware of common writing patterns of students and knows how to correct them
Mathematics	• Has broad knowledge of mathematical concepts, principles and techniques • Knows about the shifts in importance of numerical skills and procedures resulting from use of hand-held tools	• Creates elegant and powerful approaches to instructional challenges • Designs intellectually challenging lessons	• Gives students opportunities to write and speak mathematically in order to explain their thinking • Listens to students and is ready to adapt instruction to accommodate unexpected tangents
Science	• Physical science: Understands the basic properties of matter and the principles governing its interactions • Earth science: Understands the origin, composition, and structure of the universe and the motion of the objects in it	• Creates learning opportunities that are organized, structured and sequenced to support goals • Treats seriously the ideas of all their students	• Organizes classroom around hands-on explorations of natural and human-made phenomena • Is co-discoverer with students, demonstrating the value of false starts, blind leads, mistakes and anomalous results to the inquiry process
Social Studies	• Calls upon own disciplinary knowledge: facts, topics, generalizations, concepts and themes • Combines ideas, themes and knowledge from history and other disciplines to explore important issues	• Creates own tools for assessment including true-false and short answer • Supports all students, respecting individual needs and ideas	• Creates own tools for assessment, such as portfolios, videotapes and exhibitions • Places before students real historical cases to debate and analyze

Pedagogical Content *– continued from Page 12*

considered central to continuous school improvement.

Professional Development Practices Best to Avoid

By implication of the above premises, certain teacher training practices common in some schools would not be useful, and even counterproductive, to efforts to build teachers' pedagogical content knowledge. Below are three examples of such practices.

- Workshops that review generic reading skills (the main idea is…), demonstrate only the "fun" aspect of games (great scavenger hunts), or lead teachers to recipe-style learning (following the textbook or instructional guide).
- Training on differentiated instruction that addresses developmental level (age and grade) but without reference to specific disciplines.
- Sessions focusing on content learning left to content experts whose focus and interest is mere subject matter.

Conclusion

At the heart of effective content teaching is the teachers' pedagogical content knowledge. If we are to improve the quality of teaching and

Pedagogical Content *– continued on Page 14*

Pedagogical Content *– continued from Page 13*

learning in critical core content areas, we need to resist some old traditions in professional learning. Instead, we should acknowledge and expand the insights of experts who develop competence in subject matter teaching. We should additionally commit to high quality professional development targeted to develop this expertise. When we do this, we support the growth of the teacher as a person and a professional who can expertly lead a student to academic success. Concurrently, we will contribute to the realization of the goals and priorities of the classroom and the school system as a whole.

A follow-up article in a future issue of the *IDRA Newsletter* will address how generic knowledge about PCK juxtaposed with knowledge of diverse pedagogy is applied in a mentor training program that addresses the needs of teachers in classrooms with diverse student populations.

Resources

Borko, H. "Professional Development and Teacher Learning: Mapping the Terrain," *Educational Researcher* (2004). Vol. 33, No. 8, 3-15.

Gess-Newsome, J., and N.G. Lederman. "Examining Pedagogical Content Knowledge: The Construct and its Implications for Science Education," *Contemporary Trends and Issues in Science Education* (2001).

Goldston, M. "The Highly Qualified Teacher and Pedagogical Content Knowledge," *2004 Focus Group Background Papers* (Arlington, Va.: The National Congress on Science Education, 2004).

Hassel, E. *Professional Development: Learning from the Best: A Toolkit for Schools and Districts Based on the National Awards Program for Model Professional Development* (Oakbrook, Ill.: North Central Regional Education Laboratory, 1999).

Hernández Sheets, R. Diversity Pedagogy – Examining the Role of Culture in the Teaching-Learning Process (Boston, Mass.: Pearson Education, Inc., 2005).

InTime (Integrating New Teaching into the Methods of Education) Project. Teachers' In-depth Content Knowledge (Component of Technology as Facilitator of Quality Education Model) (Cedar Falls, Iowa: University of Northern Iowa, 2001).

Loughran, J., and P. Mulhall, A. Berry. "In Search of Pedagogical Content Knowledge in Science: Developing Ways of Articulating and Documenting Professional Practice," Journal of Research in Science Teaching

Pedagogical Content *– continued on Page 15*

Highlights of Recent IDRA Activities

In May, IDRA worked with 6,222 teachers, administrators, parents and higher education personnel through 38 training and technical assistance activities and 155 program sites in 13 states plus Brazil. Topics included:

- Science Strategies to Engage Learners in Analytical Thinking
- Materializing the Promise of Sheltered Instruction
- Reading, Writing and Thinking Strategies
- Coaching and Mentoring Training

Activity Snapshot

Federal law requires school districts to provide gender equitable instruction to students. Recognizing its need to ensure that materials are free of gender-bias, one district in south Texas called upon the IDRA South Central Collaborative for Equity. The South Central Collaborative for Equity is the equity assistance center funded by the U.S. Department of Education to serve Arkansas, Louisiana, New Mexico, Oklahoma, and Texas. The center provided training to personnel in the school district to ensure that all children have more complete access to curriculum without the burden of cultural, linguistic and social bias that may occur in instructional materials. As a result, teachers in the district are better equipped to identify and respond to such bias.

Participating agencies and school districts included:

- Detroit Public Schools, Michigan
- Ector County Independent School District (ISD), Texas
- Texas State Migrant Conference
- Dallas ISD, Texas
- Jefferson Parish Public Schools, Louisiana

Regularly, IDRA staff provides services to:

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

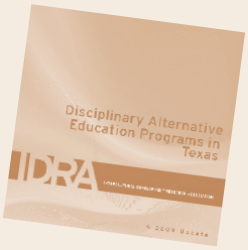
Services include:

- 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 210-444-1710.

Two new policy updates available

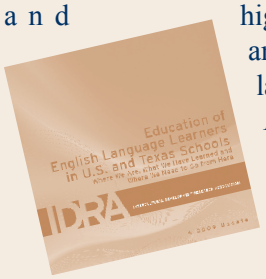
Disciplinary Alternative Education Programs in Texas A 2009 Update



Almost 10 years ago, IDRA gave voice to the thousands of Texas public school students who were being criminalized, ostracized and stigmatized for "offenses" that were formerly managed by a simple timeout or even a visit to the principal's office with its seminal assessment of Texas DAEPs. IDRA's policy update shows that in the last decade, more than three quarters of a million students have been sent to DAEPs. Four out of five of them are not there because of serious offenses. Put simply, DAEPs are a mess. They don't work for kids, they don't work for schools, and they don't work for Texas.

Education of English Language Learners in U.S. and Texas Schools – Where We Are, What We Have Learned and Where We Need to Go from Here – A 2009 Update

With the current dismal state of English language learner education, major changes in state policy and local school and district practices are essential. IDRA's policy update shows that huge achievement gaps at the middle and high school level in particular demonstrate need for changes in policy, teacher training and evaluation. Models can be found in those schools that are demonstrating how English language learners can be more effectively served. IDRA's *Education of English Language Learners in U.S. and Texas Schools – Where We Are, What We Have Learned and Where We Need to Go from Here – A 2009 Update* gives an overview of increasing numbers of ELL students, distribution of ELL students, increasing diversity and varying languages, instructional programs provided, and funding provided to ELL programs along with recommendations.



These policy updates are available free online at
http://www.idra.org/Education_Policy.htm/

They may also be purchased for $7 each plus shipping from IDRA
5815 Callaghan Road, Suite 101, San Antonio, Texas 78228; 210-444-1710; contact@idra.org

Pedagogical Content *– continued from Page 14*

(Australia: Monash University, 2004). Vol. 41, No. 4, pp. 370-391.

National Board for Professional Teaching Standards. Early Childhood/Generalist Standards (Arlington, Va..: NBPTS, 1998).

National Partnership for Excellence and Accountability in Teaching (NPEAT). "Principles of Effective Professional Development," *Research Brief* (Alexandria, Va.: Association for Supervision and Curriculum Development, 2003). Vol. 1, No. 15.

Robledo Montecel, M. "A Quality Schools Action Framework – Framing Systems Change for Student Success," IDRA Newsletter (San Antonio, Texas: Intercultural Development Research Association, November-December 2005).

Schartz, J.E. *Elementary Mathematics Pedagogical Content Knowledge: Powerful Ideas for Teachers* (Upper Saddle River, N.J.: Allyn & Bacon, 2008).

Shanahan, C., and T. Shanahan. "Teaching Disciplinary Literacy to Adolescents: Re-thinking Content Literacy," *Harvard Educational Review* (2008).

Shulman, L.S. "Those Who Understand: Knowledge Growth in Teaching," *Educational Researcher* (1986). 15 (2), 4-14.

Shulman, L.S. "Knowledge and Teaching: Foundations of the New Reform," *Harvard Educational* Review (1987). 57, 1-22.

Van Driel, J.H., and N. Verloop, W. de Vos. "Developing Science Teachers' Pedagogical Content Knowledge," *Journal of Research in Science Teaching* (1998). 35(6), 673-695.

Villarreal, A. "Ten Principles that Guide the Development of an Effective Educational Plan for English Language Learners at the Secondary Level – Part II," *IDRA Newsletter* (San Antonio, Texas: Intercultural Development Research Association, February 2009).

Von Frank, V. *Professional Learning for School Leaders* (Oxford, Ohio: National Staff Development Council, 2008).

Adela Solís, Ph.D., is a senior education associate in IDRA's Field Services. Comments and questions may be directed to her via e-mail at comment@idra.org.

INTERCULTURAL DEVELOPMENT RESEARCH ASSOCIATION
IDRA

5815 Callaghan Road, Suite 101
San Antonio, TX 78228

Non-Profit Organization

U.S. POSTAGE PAID

Permit No. 3192
San Antonio, TX 78228

Creating schools that work for all children
through research • materials development • training • technical assistance • evaluation • information dissemination

Free!

This award-winning podcast series for teachers and administrators explores issues facing U.S. education today and strategies to better serve every student.

Online Now

"The Family Friendly Principal" IDRA Classnotes Podcast Episode 56 – Rogelio López del Bosque, Ed.D., discusses how he created a family friendly school during his recent five-year term as a high school principal in order to bring families into the conversation of creating a school that achieved success for all students.

"Family Friendly at the School Door" IDRA Classnotes Podcast Episode 55 – Aurelio Montemayor, M.Ed., director of the IDRA Texas Parent Information and Resource Center, talks about his customer service training with a school district that began by validating all staff positions as important to the success of students and extended to staff members building ways to support each other in actively welcoming families and communities.

"Student Voices on Being Valued" IDRA Classnotes Podcast Episode 54 – Following a national essay contest among tutors in the Coca-Cola Valued Youth Program, Linda Cantu, Ph.D., director of this dropout prevention program, shares examples of student's stories of how the program helped them do better in school and how they had helped their tutees to do better.

"School Change Strategies" IDRA Classnotes Podcast Episode 53 – In the third of a set of podcast episodes on this topic, IDRA president and CEO, María "Cuca" Robledo Montecel, Ph.D., describes how IDRA's Quality Schools Action Framework identifies three strategies for changing schools: capacity of the community to influence schools, building coalitions, and building the capacity of the schools themselves.

www.idra.org/podcasts

A podcast is an audio file that can de downloaded to your computer for listening immediately or at a later time. Podcasts may be listened to directly from your computer by downloading them onto a Mp3 player (like an iPod) for listening at a later date. The IDRA Classnotes podcasts are available at no charge through the IDRA web site and through the Apple iTunes Music Store. You can also subscribe to Classnotes through iTunes or other podcast directories to automatically receive each new podcast in the series when it is released. Classnotes is free of charge.