



ISSN 1069-5672 VOL XLIX, NO. 10 November-December 2022

# Focus: Pandemic Effects on Learning

### VisionCoders Teens Learn Computer Science to Support Younger Students – IDRA Responds to Pandemic's Effects on Social Emotional Learning

by Stephanie García, Ph.D.

In IDRA's new course, middle school students who are in at-risk situations are becoming software designers. Eighth graders in two South San Antonio ISD schools are piloting the IDRA VisionCoders class to create educational games for prekindergarten, kindergarten and first grade students.

VisionCoders is a new eighth grade computer science course being developed by IDRA in partnership with Texas A&M University–San Antonio and 12 schools in seven Bexar County school districts. In 2022-23, the program will expand to all 12 schools, serving 1,400 eighth grade students in at-risk situations from seven school districts where fewer than 1% of students take a computer science class.

While the project targets high-need students with limited computer science opportunities, it is inspired by the needs of PreK-1 students identified amidst the COVID-19 crisis. As young students struggled to navigate and adapt to online learning, the pandemic forced schools and communities to rethink early childhood online educational resources and remote learning pedagogical practices. VisionCoders gives students the opportunity to contribute solutions – a vision in the face of unprecedented challenges – while learning valuable computer science skills and identities. During the pandemic, middle and high school tutors in IDRA's Valued Youth Partnership (VYP) observed that their young tutees in kinder and first grade were struggling with their academics. These student observations in the COVID-19 era sparked the idea for VisionCoders, which is a five-year Education, Innovation and Research grant from the U.S. Department of Education.

### Asset-Based Approaches to STEM-CS Education

The VisionCoders program is strongly aligned with the philosophical foundation and tenets of IDRA's highly successful VYP program:

- All students can learn.
- Schools value all students.
- All students can actively contribute to their own education and to the education of others.
- All students, parents and teachers have the right to participate fully in creating and maintaining excellent schools.
- Excellence in schools contributes to individual and collective economic growth, stability and achievement.
- Commitment to educational excellence is created by including students, parents and teachers in setting goals, making decisions,

(cont. on Page 2)



IDRA is partnering with Palo Alto College and Athens Elementary School this year as our participating buddy campuses within South San Antonio ISD. Each month, VisionCoders students build educational game prototypes aimed to enhance their buddy's math and literacy skills.

(VisionCoders Teens Learn Computer Science to Support Younger Students, continued from Page 1)

- monitoring progress and evaluating outcomes.
- Students, parents and teachers must be provided extensive, consistent support in ways that enable students to learn, teachers to teach and parents to be involved.

### Social-Emotional Learning and Student Engagement

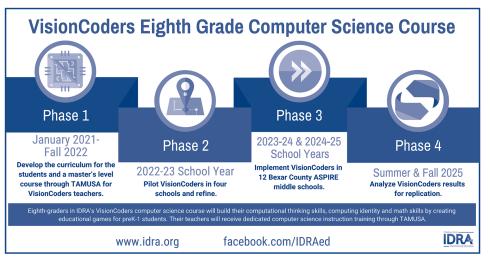
Another important lesson learned during the pandemic is how important social-emotional learning and student engagement is. Increasing opportunities for inquiry and outside experiences are exemplary practices in terms of increasing social-emotional learning and student engagement. These experiences are embedded throughout VisionCoders.

VisionCoders students rise to the challenge and engage deeply in the mentoring process with their elementary buddies. We have witnessed how this experience is already strengthening student perceptions of self and school, as well as their sense of belonging.

The deeper connection to a community need gives VisionCoders students a heightened sense of self-efficacy and engagement and a sense of urgency to deliver products to younger children they personally know and have built relationships with.

#### Increasing Representation, Access and Opportunities In and for STEM-CS Learning

Three embedded components in the Vision-Coders program include **educational field trips** held at least twice throughout the year for VisionCoders students to explore economic and cultural opportunities. The field trips are an opportunity for career awareness by expos-



ing the students to a variety of professional environments. They can make more connections between what they are learning in school and what they will need to know to work as professionals.

Second, in the **mentorship** component, STEM professionals and college student mentors visit VisionCoders students throughout the school year to share more about their STEM-Computer Science (CS) journeys, provide feedback on VisionCoders coding projects, and answer any questions they have concerning the STEM-CS field and college and career pathways.

And third, VisionCoders students will be invited to join a **paid summer internship** experience immediately following the school year. This will provide all incoming high school students with work-based experiences that align to the STEM-CS career opportunities explored throughout their class.

These concepts are crucial to supporting the STEM-CS pipeline specifically on the south



A VisionCoders student from Dwight Middle School leading his Athens Elementary School buddy through a game programmed especially for him.

side of San Antonio. IDRA's data analysis of the VisionCoders target school districts shows that adult employment trends in computer-related fields fall well below the national average of 7%. According to our findings, in the largely Latino (*cont. on Page 7*)

The Intercultural Development Research Association (IDRA) is a non-profit organization with a 501(c)(3) tax exempt status. Our mission is to achieve equal educational opportunity for every child through strong public schools that prepare all students to access and succeed in college.

The IDRA Newsletter (ISSN 1069-5672, ©2022) 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 across the United States.

Permission to reproduce material contained herein is granted provided the article or item is reprinted in its entirety and proper credit is given to IDRA and the author. Please send a copy of the material in its reprinted form to the IDRA Newsletter production offices. Editorial submissions, news releases, subscription requests, and change-of-address data should be submitted in writing to the IDRA Newsletter production editor. The IDRA Newsletter staff welcomes your comments on editorial material.

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 U.S. 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

Celina Moreno, J.D. IDRA President and CEO Newsletter Executive Editor

Christie L. Goodman, APR IDRA Director of Communications Newsletter Production Editor

## NAEP Scores Reveal Ongoing Inequities and New Questions about Approaches to COVID-19 Learning Recovery

by Morgan Craven, J.D., & Chloe Latham Sikes, Ph.D.

The National Assessment of Educational Progress (NAEP), often called "the nation's report card" is a federally-administered assessment given to a sample of students across the country. The National Center for Education Statistics (NCES) reports the results, and last month released the 2022 scores for fourth and eighth grade students in reading and mathematics. These scores were the first released since 2019 and can be seen as one indicator of the impact of the COVID-19 pandemic and remote schooling on student learning.

The results show disturbing declines in reading and math across the country, with notable differences across student groups, including in Texas. Coupled with other critical information sources – like student, family and teacher surveys and other metrics of student learning and success – the NAEP scores support the need for additional investments in student learning, particularly for systemically-marginalized students disproportionately impacted by the pandemic and schooling disruptions (U.S. Department of Education, 2021). The scores also lead to important questions about student outcomes and how schools can better support all learners.

National and Texas NAEP Results

As anticipated given the three-year disruption to schools and student learning due to COV-ID-19, reading and math scores declined overall nationally. Since 2019, average math scores declined by 5 points among fourth graders and 8 points among eighth graders across the nation. This is the largest decline since the test was first administered in 1990.

Average reading scores declined by 3 points for fourth and eighth graders in the same time period. (NCES, 2022)

A closer look at disaggregated scores shows that these patterns are not evenly applied across all student groups. For example, while scores declined consistently across most racial groups in eighth grade math, there was not a statistically significant decline in the scores of eighth grade students of color in reading. Even with these differences, it is important to remember that overall score differences continue to reflect disproportionate educational opportunities for students of color compared to their white peers.

Learning progress in middle school, particularly in eighth grade, is indicative of high school preparedness and eventual college readiness (Allensworth et al., 2014). We examined the Texas eighth grade reading and math scores by race-ethnicity and emergent bilingual (English learner) status to see how students in middle school at the start of the pandemic fared as they now enter high school.

While we know that students experienced disproportionate impacts of COVID-19 based on their race and ethnicity, those patterns are not as clear cut in the data.

All Texas students experienced declines in

math achievement according to NAEP.

(cont. on Page 4)

and researchers should continue to focus on the impact of investing resources into targeted interventions for systemically-marginalized students, data monitoring of COVID-19 relief and enhanced school-familystudent engagement practices.

Policymakers, educators



### NAEP Scores for Eighth-Grade Black Students

Data source: NAEP 2019 and 2022 Mathematics and Reading Assessments, NCES (2022).

(NAEP Scores Reveal Ongoing Inequities, continued from Page 3)

Though math scores for white, Black and Latino students have been steadily falling for the past 10 years, there was a more dramatic drop between 2019 and 2022. The largest drop occurred in Asian and Pacific Islander students' math scores, falling 10 points between the preand post-COVID testing years.

White students' scores fell 9 points, students of two or more races fell by 6 points, Latino students' scores fell by 7 points, and Black students' scores fell by 5 points. The drop among groups resulted in narrowed racial gaps in scores.

Reading scores did not take the same dip as math scores though they still reveal the impact of learning disruptions during the pandemic. Interestingly, Black and emergent bilingual students made gains in their eighth grade reading scores between 2019 and 2022. Both groups also performed better in Texas than their national counterparts in reading.

#### What the Results Can Tell Us

While these scores do not provide a full picture of student achievement or learning disruptions over the past three years, they do offer two considerations for educators as they continue to develop and deliver learning recovery practices and to lawmakers considering ongoing investments in COVID-19 educational recovery.

First, investments in educational resources pay off. NAEP scores and questionnaires show that a greater percentage of higher-scoring eighth graders reported having more consistent access to learning resources than their lower-scoring peers. Such resources include digital devices like laptops, high-speed Internet access, school supplies, and real-time virtual learning with teachers (NCES, 2022).

Systemic inequities that impact access to these resources, like the digital divide and inequitable school funding, heightened the harms of the pandemic and have long contributed to unequal educational opportunities for communities of color and with low incomes.

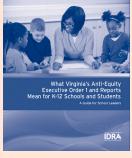
Second, while test scores offer a useful snapshot of student learning, they do not offer explanations nor guidance toward learning recovery and student success. As learning recovery continues, federal, state and local actors should invest in evaluation systems to determine the factors that contribute to declines and gains in

### Virginia's Anti-Equity Executive Order 1 Does Not Require Schools to Limit Curriculum or Instruction

# IDRA and Partners Publish Analysis with Guidance for School Personnel and Communities

A new analysis shows that directives in Virginia Governor Glenn Youngkin's anti-equity Executive Order 1 do not apply to local school division policy or practice. IDRA released the study and guide for school leaders, **What Virginia's Anti-Equity Executive Order 1 and Reports Mean for K-12 Schools and Students**, to help them continue to promote culturally sustaining school practices.

On January 15, 2022, Gov. Youngkin's first official act focused on public education by issuing Executive Order 1 aimed at limiting access to equity practices under the guise of ending the use of "divisive concepts." The executive order required the



Virginia Department of Education to issue two responsive reports by days 30 and 90 in the administration. In response, IDRA and other education leaders, researchers and advocates developed this guide for school and community leaders who serve diverse students, parents and caregivers, and teachers.

### https://idra.news/VaEO1guideEn

assessment scores and ensure they support effective programs and initiatives.

According to the NAEP, historically- and systemically-marginalized students, including Black, Latino and emergent bilingual students, experienced less dramatic declines and even some gains across the NAEP results.

While these results should not be seen as definitive and should be viewed alongside statelevel assessments, these results could give us important information about state and school district outreach strategies, digital inclusion efforts, and adaptive learning initiatives and how those efforts may have made a dent in longstanding educational equities, as measured by the assessment.

This variance in NAEP results demonstrates that policymakers, practitioners and researchers should continue to focus on the impacts of investing resources into targeted interventions for systemically-marginalized students, data monitoring of COVID-19 relief and recovery efforts and enhanced school-family-student engagement practices.

Additionally, more research must be conducted on the results of the significant federal investments in education from the pandemic emergency relief distributed to states through the Elementary and Secondary Schools Emergency Relief (ESSER) fund. A deep examination of state and district relief fund priorities and investments could help to illuminate and bolster successful learning recovery strategies.

Given the limits of any single assessment, states and school systems should consider other metrics of student opportunity and success, such as safe school climates, sound asset-based pedagogies, student-family engagement, highquality instructional materials, access and success in college, and greater digital inclusion and access.

#### Resources

- Allensworth, E., Gwynne, J.A., de la Torre, M., & Moore, P.T. (November 2014). Looking Forward to High School and College – Middle Grade Indicators of Readiness in Chicago Public Schools. University of Chicago Consortium on School Research.
- NCES. (January 12, 2022). National Assessment of Educational Progress, website. National Center for Education Statistics.
- U.S. Department of Education. (June 2021). Education in a Pandemic: The Disparate Impacts of COVID-19 on America's Students. U.S. Department of Education, Office for Civil Rights.

Morgan Craven, J.D., is the IDRA national director of policy, advocacy and community engagement. Comments and questions may be directed to her via email at morgan.craven@idra. org. Chloe Latham Sikes, Ph.D., is IDRA's deputy director of policy. Comments and questions may be directed to her via e-mail at chloe.sikes@idra.org.

### **Strategies for Recruiting Bilingual Educators**

#### by Lizdelia Piñón, Ed.D.

My children Felicita, Frida, and Santiago did not have a bilingual teacher for over six months in second grade. Instead, they had a series of unqualified substitutes coming and going during this important academic year.

One in every five students who walk through the doors of a public school in the state of Texas is an emergent bilingual student. Yet, for over three decades, Texas has had a crisis situation in the shortage of bilingual educators that has impacted generations of students.

This problem is not limited to Texas. Schools across the country continue to have difficulty filling some very critical teaching positions, sadly with the majority of these being in highpoverty schools that primarily serve emergent bilingual students. Foreign language and bilingual/ESL are consistently among the subject areas with the highest percentage of substitute teachers (Horn, et al., 2021). Unfortunately, the effects of COVID-19 made matters even worse for the bilingual education teaching profession.

In September of 2022, the Texas House Public Education and Higher Education Committees examined the issue of teacher shortages in public schools. The committees invited me to provide expert testimony (Piñón, 2022). Below, I share some of the strategies I presented in my testimony that school and district leaders can use to co-create an inclusive, multilingual, equipped and sustainable workforce of educators.

#### Create a Classroom-Student-to-Classroom-Teacher Pathway

Educators should encourage students who are bilingual to become bilingual teachers. Districts can establish Grow Your Own educator programs to build strong, stable, and diverse



teacher pipelines from within their own communities based on school districtspecific teacher workforce needs. (See IDRA's Grow Your Own Educator Programs – Online Technical Assistance Toolkit.)

We need to celebrate students who are bilingual or multilingual as they have profound language at the moment skills with languages from the time they enter U.S. schools. As early as elementary school, educators can encourage bilingual students to participate in clubs, such as Future Bilingual Teacher Club, or Spanish, Vietnamese, Portuguese, etc., clubs. Schools can continue their support of bilingual students by helping them earn biliteracy seals in their graduation plans.

#### Create Collaborative Partnerships Between School Districts and Higher Education

School districts need to collaborate with designated Hispanic Serving Institutions (HSIs) and take advantage of their current students who are bilingual. Such collaborations can encourage the widespread and targeted placement of bilingual education preservice teachers. States should provide financial assistance to bilingual/ESL teacher candidates and fund resource centers that will help them achieve success in education.

Leaders can draw on a number of strategies from IDRA's previous projects that partnered with more than 55 school districts and with universities to prepare skilled, effective teachers in key teacher shortage areas of math, science, bilingual/ESL and special education fields. Through six multi-year Transition to Teaching grants, funded by the U.S. Department of Education, IDRA recruited over 800 (*cont. on Page 8*) Well-qualified public school educators are key to students' academic success, emotional and physical well-being and social development. A strong workforce of bilingual/ESL educators is essential to student success and thriving communities.

# IDRA, Lubbock NAACP join Slaton and Lubbock Families in Demanding End to School-Based Racial Discrimination

On December 12, 2022, IDRA joined students, families, and the Lubbock NAACP to challenge racially discriminatory practices in two west Texas school districts through an administrative complaint filed with the U.S. Department of Education's Office for Civil Rights. Attorneys from Ellwanger Law, ACLU of Texas, and Texas Civil Rights Project serve as legal counsel to the complainants. The complaints allege that Slaton ISD and Lubbock-Cooper ISD failed to protect Black students experiencing racial bullying and harassment in their schools and imposed inappropriate and harmful discipline against those students.

IDRA's Chief Legal Analyst, Paige Duggins-Clay, J.D., led research, community support, and strategy in collaboration with co-complainants and legal counsel.

"All students deserve to feel safe and welcome in school," Duggins-Clay said. "We are hopeful the Department of Education will facilitate a resolution that eliminates the districts' discriminatory discipline practices and effectively addresses the racially hostile environment."

The Slaton ISD complaint describes incidents of Black students being sentenced to the district's disciplinary alternative educational program (DAEP) without evidence or in violation of state and federal law. Multiple Black students experienced a daily onslaught of racialized taunts, threats and jeers from other students.

"The families of these children repeatedly reported the racial harassment and bullying that was causing their children emotional distress to Slaton administrators," the complaint states. "But the administrators failed to take prompt, effective action in response to these complaints, instead leaving Black children to defend and support themselves."

The Lubbock-Cooper ISD complaint describes Black children being subjected to an environment of "constant and near-daily bullying on the basis of race." Further detailed in an August 2022 letter submitted by Ellwanger Law, students were subjected to derogatory language and racial slurs as well as the "sounds of cracking whips as they walked through the halls of the middle school due to the white students playing such sounds on their phones each time they encountered a Black student." The complaint adds, "The white students would also go beyond the sound of cracking whips by initiating the sounds of monkeys as the Black students walked by."

Families from both school districts and dozens of supporters from the broader Lubbock community attended the Lubbock-Cooper ISD school board meeting as three Lubbock-Cooper families testified.

"We are going to keep fighting until you make changes," Tracy Kemp told Lubbock-Cooper ISD board members.

The complaints list a number of demands for resolution, including revised district anti-harassment, anti-discrimination and anti-bullying policies; training of school and district staff on Title VI and appropriate school discipline



Outside the Lubbock-Cooper ISD board meeting: (L-R) Sarah Moore-Harris, community supporter; Devon Durham, complaint participant; Tracy Kemp, complaint participant; Paige Duggins-Clay, J.D., IDRA; Shardae McGaha, complaint participant; Mary Harris, community supporter; Phyllis Gant, Lubbock NAACP

practices; effective and age-appropriate prevention programs for students; systems for student and family input; alternatives to exclusionary discipline placement, such as restorative practices; an external evaluator to regularly assess the educational climate and effectiveness of policies; and annual reports posted online summarizing the reports of racial bullying and harassment.

"Mechanically imposing discipline against students engaging in racially discriminatory conduct or duly reciting platitudes that a school (*cont. on Page 7*)



**Lessons for Teaching About Race & Culture** 

Get our latest four-part lesson plan series to facilitate thoughtful high school classroom discussions, reflection and empathy building.

Free on IDRA's School Resource Hub https://idraseen.org/hub

**IDRA** 

(IDRA, Lubbock NAACP join Slaton and Lubbock Families, continued from Page 6)

does not tolerate racial harassment is not sufficient action," Duggins-Clay said.

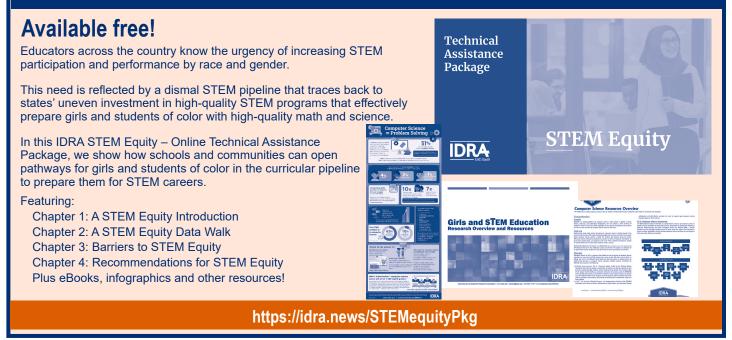
The U.S. Department of Education Office for Civil Rights, which enforces Title VI of the Civil Rights Act of 1964, will evaluate the complaints to determine whether to open an investigation. The Department is already actively reviewing two complaints filed by Lubbock-Cooper ISD families in April 2022.

Even with the pending complaints, school and district leaders should not wait to ensure their students have safe and welcoming school environments to learn. The students and families in Slaton ISD and Lubbock-Cooper ISD deserve accountability and positive change. Their lives have been irrevocably altered because of their schools' discriminatory practices.

"No child should be forced to endure a racist learning environment," Duggins-Clay said.

See summaries of the two complaints at: https://idra.news/LBKstatement.

### **STEM Equity – Online Technical Assistance**



(VisionCoders Teens Learn Computer Science to Support Younger Students, continued from Page 2)

geographic area, fewer than 1% of adults work in computer-related fields.

But today's fastest-growing careers are techdriven from healthcare to telecommunications to aerospace. The U.S. Bureau of Labor Statistics projects computer science research jobs alone to increase 19% by 2026. And 67% of all new jobs in STEM are in computing.

#### Project-Based Learning and Design-Thinking Frameworks

The educational approaches of project-based learning and design-thinking frameworks inform the VisionCoders course design and curriculum development, leaning into asset-based and innovative practices. Educators teach block programming and video game design through Scratch and Code.org platforms. By scaffolding skills and creating games, the VisionCoders course builds confidence among students, who have little or no computing or programming skills, to plan out increasingly complex games and activities.

Such meaningful and purposeful connections are exactly what the computer science education community recommends. Each Vision-Coders student creates a portfolio of products to showcase at the end of the year to the broader community. Feedback from experts and community members are essential tenets of project-based learning and design-thinking frameworks. And student recognition for their hard work is an essential component of Vision-Coders.

#### Join VisionCoders!

During the 2023-24 and 2024-25 school years, we will expand to 12 middle school campuses participating in the VisionCoders program. Participating school districts include East Central, Edgewood, Harlandale, Somerset, South San Antonio, Southside and Southwest ISDs. Depending on enrollment numbers, we are open to including other districts. If you or someone you know in these districts are interested in joining IDRA's VisionCoders program, please share this article with them and have them contact me at stephanie.garcia@idra.org.

Stephanie García, Ph.D., is IDRA's STEM and gender equity education specialist and directs the IDRA VisionCoders program. Comments and questions may be directed to her via email at stephanie.garcia@idra.org.



5815 Callaghan Road, Suite 101 San Antonio, Texas 78228 U.S. POSTAGE PAID

Permit No. 3192 San Antonio, TX 78228

#### Focus: Pandemic Effects on Learning\_

(Strategies for Recruiting Bilingual Educators, continued from Page 5)

recent graduates and mid-career professionals who were working in fields other than teaching. These new teachers participated in university coursework and intense professional development while in a first-year paid teaching internship. (IDRA, 2018)

#### **Use Varied Modes of Recruitment**

Local and national professional organizations serving bilingual educators are valuable recruitment venues. Schools can take advantage of high school summer academies, college nights and collaborative programs to recruit future bilingual/ESL teachers. Following recruitment and retention best practices, states can be supportive by providing more specific recruitment guidance, technical support and financial assistance.

#### **Remove Barriers**

There are many barriers that need to be removed to allow student teachers, current teachers and retired teachers to become bilingual educators. Required state exams may be a



See Dr. Piñón's testimony and resources on the bilingual teacher shortage at https://padlet.com/lizdeliapinon/BilingualTeacherShortage

financial burden for many, thereby establishing a barrier for bilingual teacher recruitment.

Currently, Texas and other states have restrictions that serve as barriers for retired teachers who wish to return to the classroom. These states should remove these restrictions so that excellent retired educators, who are retired in good standing and are certified in bilingual education. Removing such restrictions provides an easier path for many to return to the classroom and support the development of other bilingual educators.

Emergent bilingual learners are better served by having access to high-quality bilingual educators who are fluent in the students' native language. Well-qualified public school educators are key to students' academic success, emotional and physical well-being and social development. A strong workforce of bilingual/ ESL educators is essential to student success and thriving communities.

#### Resources

- Horn, C., Burnett, C., Lowery, S., & White, C. (2021). Texas Teacher Workforce Report. University of Houston College of Education.
- IDRA. (2018). IDRA Transition to Teaching Program: 15-Year Synthesis October 1, 2001 – September 30, 2017. IDRA.
- IDRA. (2017). Grow Your Own Educator Programs Online Technical Assistance Toolkit.
- Piñón, L. (2022). Testimony Resources: Bilingual Teacher Shortage. IDRA. https://padlet.com/lizdeliapinon/BilingualTeacherShortage

Lizdelia Piñón, Ed.D., is an IDRA education associate. Comments and questions may be directed to her via email at lizdelia.pinon@idra.org.

achieving equal educational opportunity for every child through strong public schools that prepare all students to access and succeed in college