FirstSchool

Arm Yourself: Use Research to Guide Practice and Advocate on Behalf of Children

FirstSchool Director Sharon Ritchie created this resource for our partner educators. We hope that these resources help support and drive your teaching as you consider the research-base that drives FirstSchool initiatives. This quick "cheat sheet" summarizes the major points of key articles. A full list of citations is provided at the end.

Classroom Observation

Data from classroom observation is a potent form of professional development and a powerful intervention. It helps teachers:

- develop reflective practice;
- share their strengths and admit their challenges;
- gain new ideas and fresh perspectives about teaching; and
- improve the quality of the learning experiences made available to students.

(Sheppard, Leifer, & Carryer, 1998)

Children's Trajectories

Children form academic trajectories early in their school careers that tend to be stable and difficult to change over the course of their schooling.

(Alexander & Entwisle, 1993)

Children's negative perceptions of competence and attitudes become stronger and harder to reverse as children progress through school.

(Valeski & Stipek, 2001)

The focus of all efforts to improve Pre-K–3 education is sustained **coherence and alignment** in the education of children across ages 3 to 8.

(Reynolds, Magnuson, & Ou, 2006)

Oral Language and Vocabulary

A classroom emphasis on oral language development has been identified as one of the premier instructional strategies for ensuring the success of children, especially those from low socio-economic communities.

(Mason & Galloway, 2012)

Oral language development influences vocabularies in young children suggesting discrepancies in young children's vocabularies in prekindergarten may remain throughout their schooling.

(Snow, 2007)

Vocabulary proficiency is a predictor of academic achievement beginning as early as the third grade.

(Storch & Whitehurst, 2002)

On average, children growing up in low-income families have dramatically less exposure to academic oral and written language in their homes than do middle-class children.

- Low-income children hear fewer words and are engaged in fewer extended conversations. Children in higher income homes will be exposed to **45 million** words compared to only 13 million words for a child in a low-income family (Hart & Risley, 2003).

Collaboration

Students:

- learn more;
- are more highly motivated to learn;
- enjoy learning more;
- feel more positive towards the subject being studied;
- have increased positive regard for their teachers; and
- are more accepting of one another when they work together with peers as opposed to working competitively or individually.

(Johnson & Johnson, 2013)

Self Regulation

As children develop self-regulation, they:

- ignore distractions;
- focus and attend;
- delay gratification;
- persist in challenging situations;
- recognize that others have needs;

- ask for help;
- plan and think deliberately; and
- control emotions and express them appropriately.

(McClelland, Acock, & Morrison, 2002)

Teaching Approaches

African-American and Latino/Hispanic children often have fewer scaffolded teaching interactions, thus minimizing opportunities for higher-order thinking.

(Early et al., 2010)

While information giving is greatest during didactic instruction…retention is not.

(Zull, 2002)

Students experience greater retention of knowledge when they are asked open-ended questions, when teachers use follow up questions, and when teachers use techniques that allow students to more readily connect new information to prior knowledge.

(Hedrick, San Souci, Haden, & Ornstein, 2009)

Expectations

Teachers perceive African American students as exerting less effort than White students, creating large gaps in "unrealized academic potential"; differing discipline may also play a role.

(Wildhagen, 2012)

Teacher perceptions of student abilities when entering kindergarten reveal a "greater mismatch between teachers' expectations and children's competencies in areas with higher concentration of poverty and minority status" (Rimm-Kaufman, Pianta, & Cox, 2000, p. 162).

Teachers in "low-ability" math classes put less emphasis on incorporating students' interests, developing inquiry, problem-solving, and communication skills, and preparing for future curriculum; spent more time doing rote, solitary seatwork.

(Oakes, 1990)

The effects of teacher expectations, whether positive or negative, have been shown to be stronger for students from low-income backgrounds.

(Sorhagen, 2013)

In elementary/middle school, differential treatment of students seem to have a direct effect on both children's achievement and their perceptions of themselves as learners (Kuklinski & Weinstein, 2001, p. 1575).

66% of students who come from advantaged homes graduate from college while only 17% of students who have similar grades and SAT scores, but come from disadvantaged homes graduate.

* WHY?
    * Students did not feel like they 'belonged' in their university.
    * Students did not feel like they had the ability to succeed

(Tough, 2014)

- The effects of even a single ineffective teacher are enduring enough to be measurable at least four years later. Good teachers in subsequent grades boost achievement, but not enough to compensate for the effects of an earlier ineffective teacher.

(Thompson & O'Quinn, 2001)

- "If a bad year is compounded by other bad years, it may not be possible for the student to recover."

(Hanushek, 2010)

Culturally Relevant Teaching

* Individualism fosters and promotes independence, individual thinking, individual achievement, self-expression, and personal choice.
* Collectivism fosters and values interdependence, group success through adherence to norms, respect for authority, and group consensus.

(Trumbull, Rothstein-Fisch, & Greenfield, 2000)

References

Entwisle, D. R., & Alexander, K. L. (1993). Entry into school: The beginning school transition and educational stratification in the United States. *Annual Review of Sociology*, 401-423.

Ryan, R. M., & Deci, E. L. (2000). Self-determination theory and the facilitation of intrinsic motivation, social development, and well-being. *American Psychologist, 55(1),* 68.

Early, D. M., Iruka, I. U., Ritchie, S., Barbarin, O. A., Winn, D. M. C., Crawford, G. M., ... & Pianta, R. C. (2010). How do pre-kindergarteners spend their time? Gender, ethnicity, and income as predictors of experiences in pre-kindergarten classrooms. *Early Childhood Research Quarterly, 25(2)*, 177-193.

Hedrick, A. M., Haden, C. A., & Ornstein, P. A. (2009). Elaborative talk during and after an event: Conversational style influences children's memory reports. *Journal of Cognition and Development, 10(3*), 188-209.

Johnson, R.T., & Johnson, D.W. (201). Research Matters - to the Science Teacher: Encouraging student/student Interaction. Retrieved from http://www.narst.org/publications/research/encourage2.cfm

McClelland, M. M., Acock, A. C., & Morrison, F. J. (2006). The impact of kindergarten learning-related skills on academic trajectories at the end of elementary school. *Early Childhood Research Quarterly, 21(4)*, 471-490.

Mason. P., & Phillips Galloway, E. (2012) Let them talk! *Reading Today, 29(4),* 29-30.

Oakes, J. (1990). *Multiplying inequalities: The effects of race, social class, and tracking on opportunities to learn mathematics and science*. Santa Monica, CA: The RAND Corporation.

Reynolds, A., Magnuson, K., & Ou, S. R. (2006). PK-3 education: Programs and practices that work in children's first decade. *Foundation for Child Development Working Paper, 6,* 1-28.

Reynolds, A. J., Magnuson, K. A., & Ou, S. R. (2010). Preschool-to-third grade programs and practices: A review of research. *Children and Youth Services Review*, *32*(8), 1121-1131.

Sheppard, S., Johnson, M., & Leifer, L. (1998). A model for peer and student involvement in formative course assessment. *Journal of Engineering Education, 87(4),* 349-354.

Singleton, G. E., & Linton, C. (2005). Courageous conversations about race: A field guide for achieving equity in schools. Thousand Oaks: SAGE.

Snow, C. E., Porche, M. V., Tabors, P. O., & Harris, S. R. (2007). *Is literacy enough? Pathways to academic success for adolescents*. Baltimore, MD: Brookes.

Sorhagen, N. (2013). Early teacher expectations disproportionately affect poor children's high school performance. *Journal of Educational Psychology, 105* (2), 465-477.

Steele, C. (1992). Race and the schooling of African-American Americans. The Atlantic Monthly, 68–78.

Steele, C. M. (1997). Race and the schooling of Black Americans. Sterling, VA: Stylus.

Storch, S. A., & Whitehurst, G. J. (2002). Oral language and code-related precursors to reading: Evidence from a longitudinal structural model. *Developmental Psychology, 38(6*), 934.

Tough, P. (2014) Who Gets to Graduate? NY Times Magazine (May, 2014)

Trumbull, E., Rothstein-Fisch, C., & Greenfield, P. M. (2000). Bridging cultures in our schools: New approaches that work (pp. 1-16). San Francisco: WestEd.

Trumbull, E., Rothstein-Fisch, C., Greenfield, P. M., & Quiroz, B. (2001). Bridging cultures between home and school: A guide for teachers. Mahwah, NJ: Routledge.

Valeski, T. N., & Stipek, D. J. (2001). Young children's feelings about school. *Child development*, *72*(4), 1198-1213.

Werner, E. E. (2013). What can we learn about resilience from large-scale longitudinal studies?. In S. Goldstein & R. B. Brooks (Eds.), *Handbook of resilience in children* (pp. 87-102. New York: Springer.

Wildhagen, T. (2012). How teachers and schools contribute to racial differences in the realization of academic potential. *Teachers College Record*, 114(7), 2012, 1-27.

Zull, J. E. (2002). *The art of changing the brain: Enriching teaching by exploring the biology of learning*.