

Wired For Learning Supporting Thinking Skills in the K-2 Classroom

Undergraduate Researchers: Apsel, M., Cooke, C., Dombrovskya, A., Heaton, K., Henderson, C., Liang, N., Locklear, K., Sanders, R., Reed, R., & Shoichet, N.

Team Leaders: Gayle, M., Griffith, A., Horstman, C., Stephens, K., & Turner, D.

Background

WIRED FOR LEARNING is a project developed in partnership with Durham Public Schools (DPS) derived from *Project Bright Idea*, which examined issues underlying the underrepresentation of students from low SES backgrounds in gifted education programs.

Bright Idea found that teachers often believed that children from low SES environments were less receptive to education. To increase equity and access, the project focused on improving teacher dispositions.

WIRED FOR LEARNING provided professional development for DPS teachers in the implementation of a Thinking Skills curriculum (Parks & Black, 2015) and tracked the fidelity of curricular implementation across teachers.

The project aims to help teachers see the potential in *every* student while also cultivating those critical skills needed for effective learning.

Data & Methods

- Workshops for teachers
- Classroom observations using a standardized observational tool
- Tracking changes in teacher dispositions

Figure 1. Sampling of Questions and Responses from Teacher Disposition Pre-Survey

Sample Questions from Dispositional Survey	Strongly Agree	Agree	Neither Agree or Disagree	Disagree	Strongly Disagree
You can substantially change how intelligent you are.	15.38%	69.23%	15.38%	5 2.	.
I can teach every student in my classroom to think critically.	38.46%	46.15%	7.69%	7.69%	-
I use tasks with high-level expectations for all students.	53.85%	30.77%	7.69%	7.69%	
Regardless of my intentions and efforts, there will students who cannot master this content.	7.69%	69.23%	15.38%	7.69%	
Students can be taught to think critically.	46.15%	46.15%	7.69%	*	H

Teachers on Thinking Skills Curriculum

"The students are using the vocabulary (attributes, position words) in other subjects and throughout the day."

"I have already seen students' benefit from the thinking skills curriculum. Their vocabulary acquisition and proper use of grammar has increased as well as their ability to articulate their own individual thoughts to the group."

"Students are able to reason better than before....they are able to think outside of the box & make correlations to their own personal lives and to the concepts being taught in the classroom."



Figure 2. Team member, Raisa Reed, with first-grade students at Pearsontown Elementary

Conclusions

- Teachers did well in preparedness, adherence to the script, and encouraging students to use high level vocabulary.
- Challenging areas for teachers included focusing on an essential question, one-on-one student discussion (Think-Pair-Share) and prompting students to discuss their thinking with others (metacognition).
- Of the 13 female teachers, 7 strongly agreed that they could use tasks with high expectations for their students.
 Nine strongly agreed that some students could not master content regardless of teacher's effort.

Hopes for the Future

- Close the achievement gap
- Integrate *Thinking Skills* across state K-2 curricula
- Increase equity and access to gifted education programs
- Ensure teachers believe that all students have the potential to learn at high levels.

Acknowledgements: Dr. Minna Ng, Dr. Amy Finnegan, Valerie Hargett, Lorrie Schmid, Laura Parrott, Kim Marion, Christine Lange **References:** Parks, S. & Black, H. (2015). *Thinking skills & key concepts*. Seaside, CA: The Critical Thinking Company.