Student-Led Action Research for the Primary Grades: Growing Gifted Students into Inquisitive Researchers

Presentation from the Ridgecrest Center for Gifted Studies

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A presentation from the Ridgecrest Center for Gifted Studies

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What is Action Research?

- **Performed by students, within or outside of schools and classrooms, with the purpose of impacting school, community and global issues (Rubin & Jones, 2007)**
- **Contributes to the positive development of academic, social and civic skills of students (Rubin & Jones, 2007).**
- **Process of identifying a dilemma or question related to a problem and creating an open-ended research question**

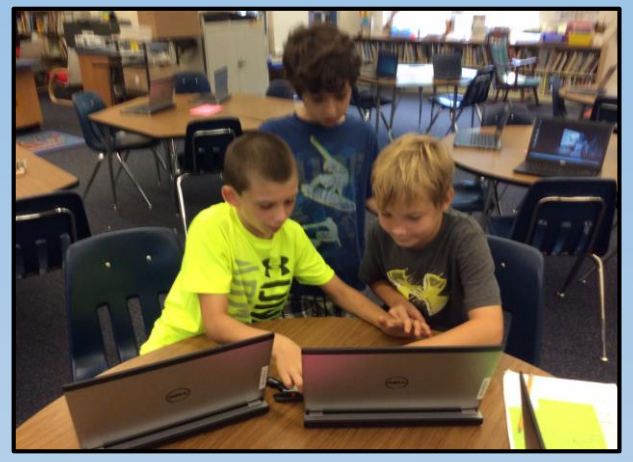
  (Dana & Yendol-Hoppey, 2009).
- **Follows a cycle of questioning; observing; gathering and analyzing data; and, acting on the new knowledge**

  (Cochran-Smith & Lytle, 2009).

https://safeshare.tv/x/ss57a1e45cb414d

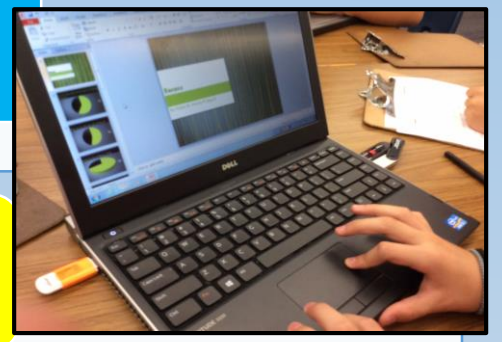
Why Use Action Research?

- Develops Civic Minded Approach
- Real World Problems
- Synthesize Subject Areas
- Allows for Creativity
- High Order Thinking Skills
- Research Skills
- Integrates Technology
- Student Collaboration
- Presentation and Leadership Skills
- Students Love it!



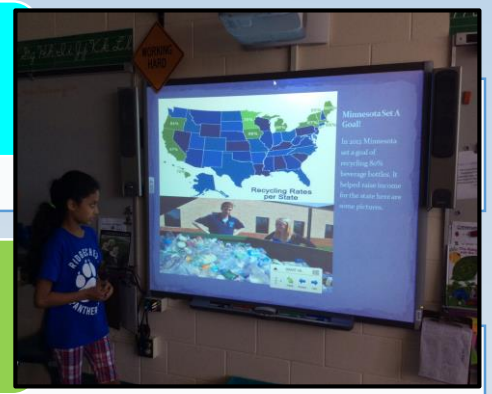
How Action Research Supports the National Gifted Standards

Use a variety of research tools and methodologies



Apply ethical standards to research and analyses

Accept divergent views to positively effect change



Identify, generate and evaluate significant questions within and across disciplines

How Action Research Supports the National Gifted Standards

Identify and investigate a problem and generate supportive arguments from multiple perspectives of a complex issue

Use and evaluate various problem-solving methods to determine effectiveness in solving real-world problems

Create products that synthesize information from diverse sources illustrating divergent solutions or perspectives

Allows student to gain deeper empathy and leadership skills through service learning

Teaching is not about facts and information to know, it is an avenue for individuals to make a connection to their world.

- "In early childhood as soon as we start working with youngsters, we should be promoting self-directed learning"- Joyce Van Tassel Baska (Shaughnessy & Jager, 2012)

- It is through their learning in ways that promote connectedness through understanding and personal association, can an individual find meaning in both the information and the implications in the world around them (Starratt, 2012).

Starratt, R. J. (2012). *Cultivating an Ethical School.* New York: Routledge Taylor & Francis.

Shaughnessy, M. F., & Jager, K. (2012). A Reflective Conversations with Joyce Van Tassel Baska. *Gifted Education International, 28*(2), 139-145. doi:10.1177/0261429411434975

Depth of Knowledge (DOK) Chart

LEVEL ONE – RECALL/REPRODUCTION

Recall a fact, information, or procedure. Process information on a low level.

LEVEL TWO – SKILL/CONCEPT

Use information or conceptual knowledge, two or more steps.

LEVEL THREE – STRATEGIC THINKING

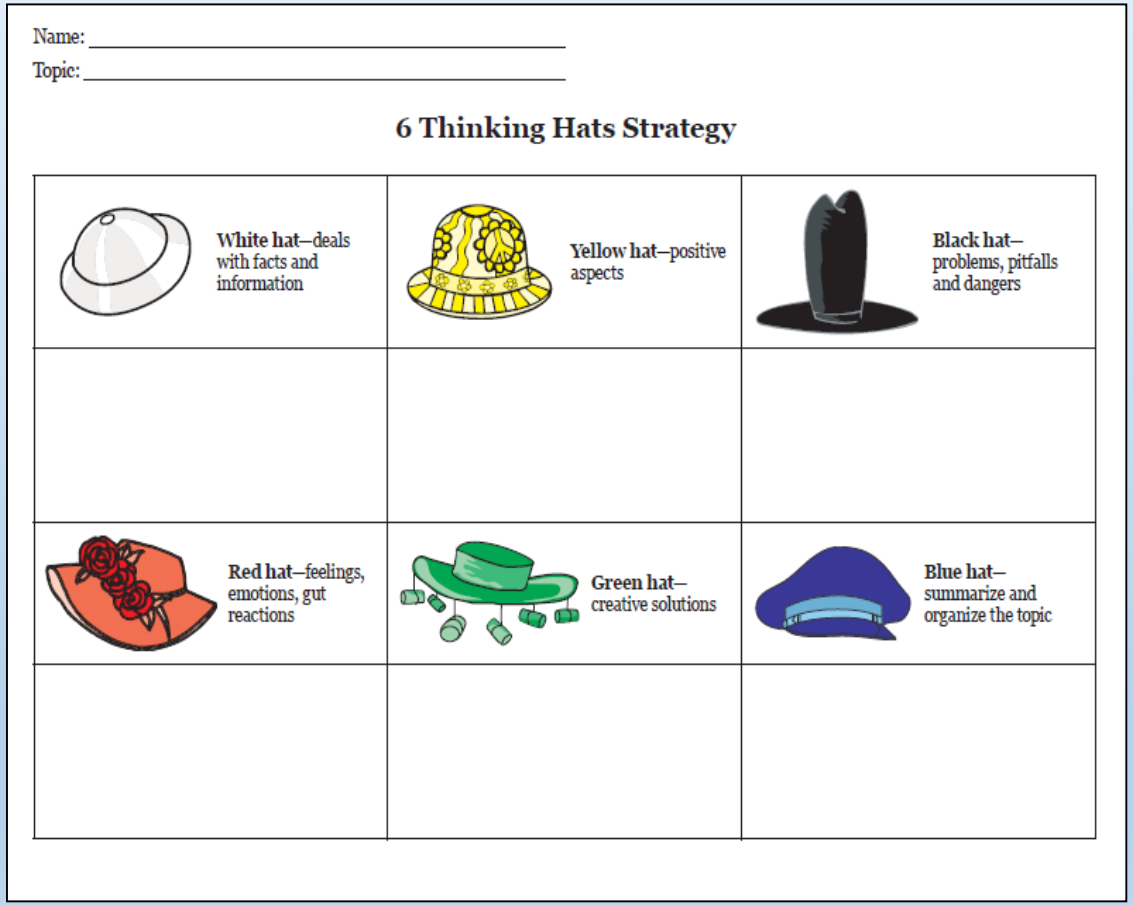
Requires reasoning, developing a plan or a sequence of steps, some complexity.

LEVEL FOUR – EXTENDED THINKING

Requires an investigation, time to think and process multiple conditions of the problem. (Appraise, create, critique, design, judge, justify, prove, synthesize)

Gifted Strategies to Increase the Depth of Knowledge

This tool enables students to look at a decision/problem from several points of view. It was created by Edward de Bono in his book Six Thinking Hats and is an important and powerful technique. The tool is used to look at decisions/problems from a number of important perspectives. This forces students to move outside a characteristic thinking style and helps achieve a more rounded view of a situation.



Name: _____

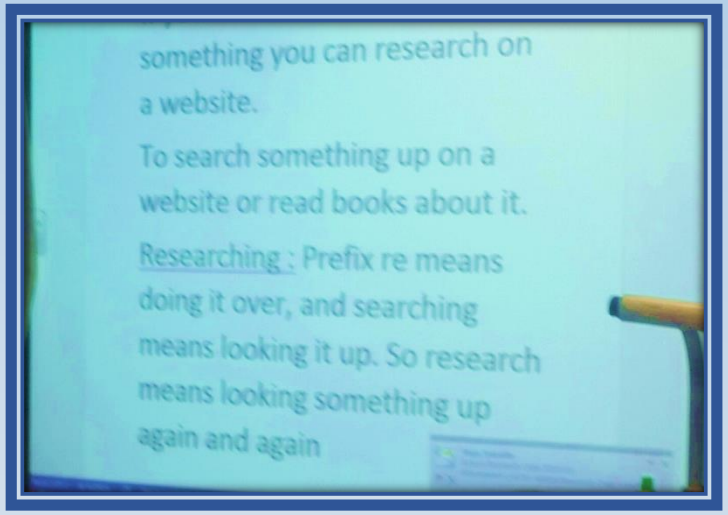
Topic: _____

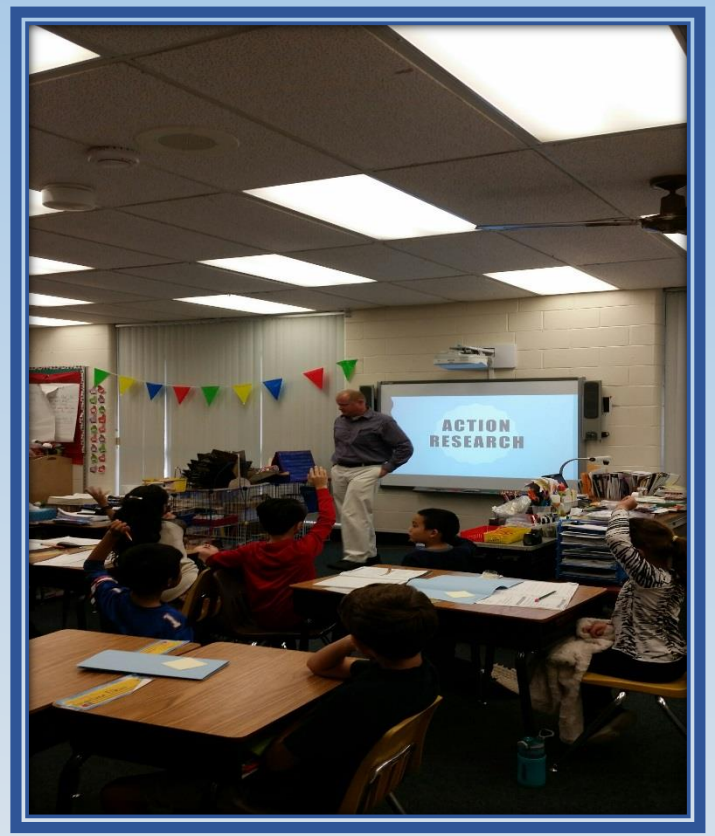
6 Thinking Hats Strategy

White hat—deals with facts and information	**Yellow hat**—positive aspects	**Black hat**—problems, pitfalls and dangers
Red hat—feelings, emotions, gut reactions	**Green hat**—creative solutions	**Blue hat**—summarize and organize the topic

- **White Hat...***The Facts - What are the facts? What information do I have? What information do I need to find out?
- **Black Hat...***The Negatives - What problems could arise? What are the disadvantages?
- **Yellow Hat....***The Positives - Why is this a good idea? What are the advantages and benefits?
- **Red Hat....***Feelings - How do I feel about this? What do I like about these feelings? What do I not like about these Feelings?
- **Green Hat...***Creativity - What new ideas are possible? What is my suggestion? How can this be changed or improved?
- **Blue Hat...***The Big Picture - What thinking is needed? Where are we now? What do we need to do next?

Developing a mindset of the purpose for research



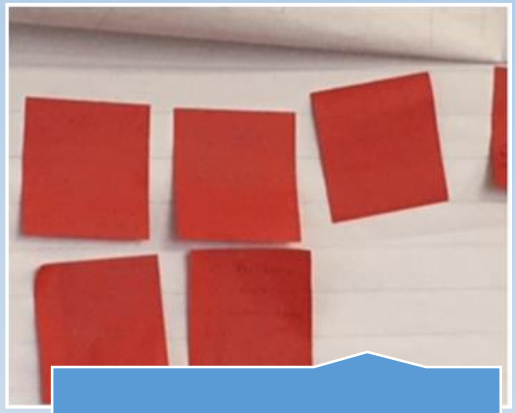


Developing an Understanding of Research

Building background

Collaborating with mentors to generate ideas

Mentors share the ideas of first graders



Organizing ideas

We are one small part of our big world, so why is what we do important?

Each small part of the world is one piece to the puzzle, without everyone contributing, there will be something missing

Kid President How to Change the World

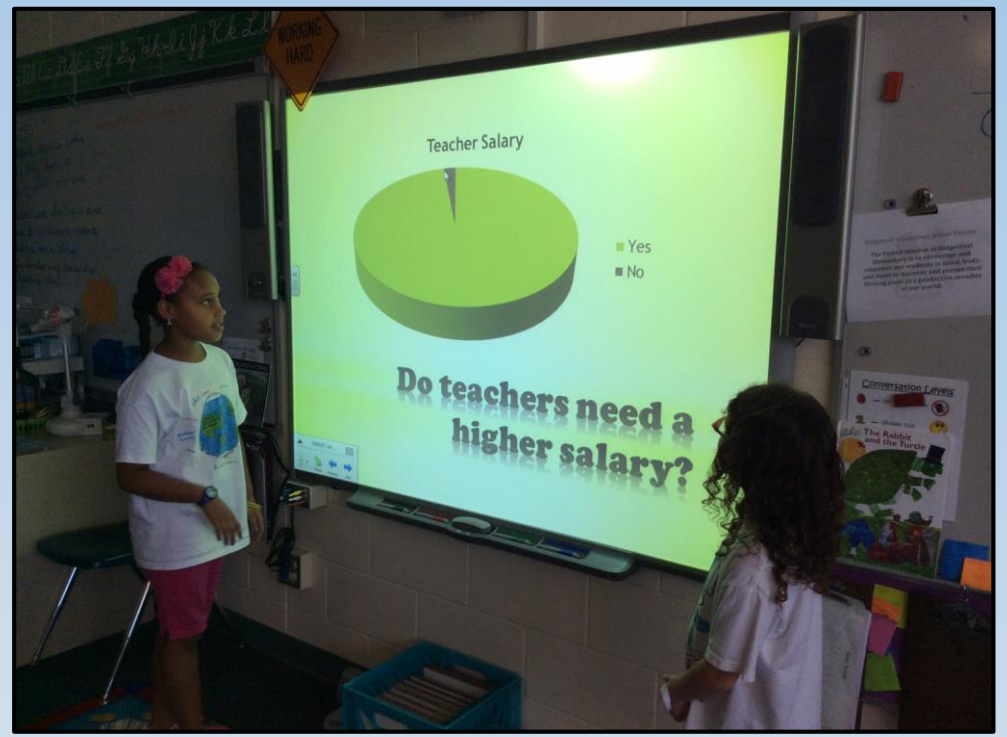
Topic selection process

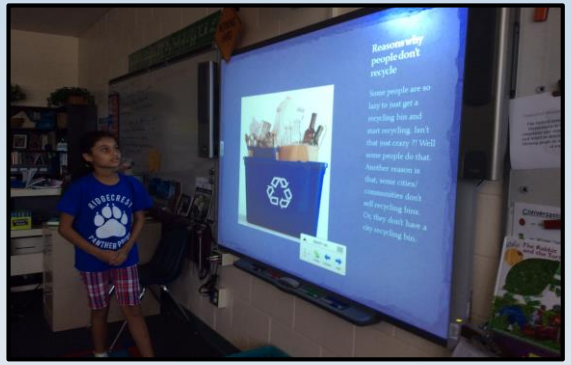
Action Research Topics - School

- Bus fumes
- Grass on PE field
- Noise in the cafeteria
- Bullying
- Germs at school
- Newer sinks
- Better tasting lunches

Action Research Topics – Community

- Video game addiction
- Air pollution
- Low teacher salaries
- Homelessness
- Stray Animals
- The Pier
  (St. Petersburg, FL)
- Service animals
- Recycling





Action Research Topics - Global Concerns

- Poaching
- Water pollution
- Poverty
- Endangered species
- Air pollution

Guiding questions for gathering information

Where can you learn about your topic?

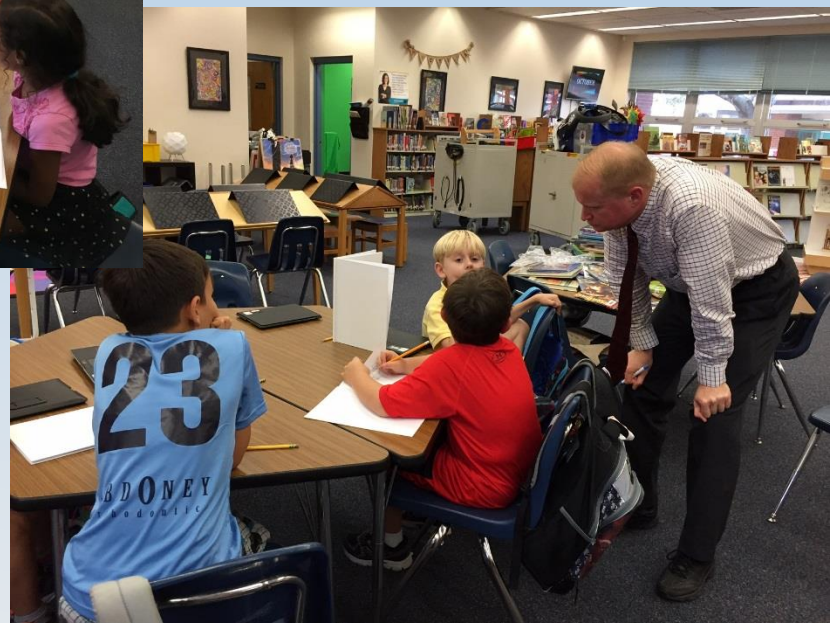
What resources exist and what information from others might be useful in helping you to finding information?

How will you ensure that you have multiple perspectives?

What do I do with the information once I find it?

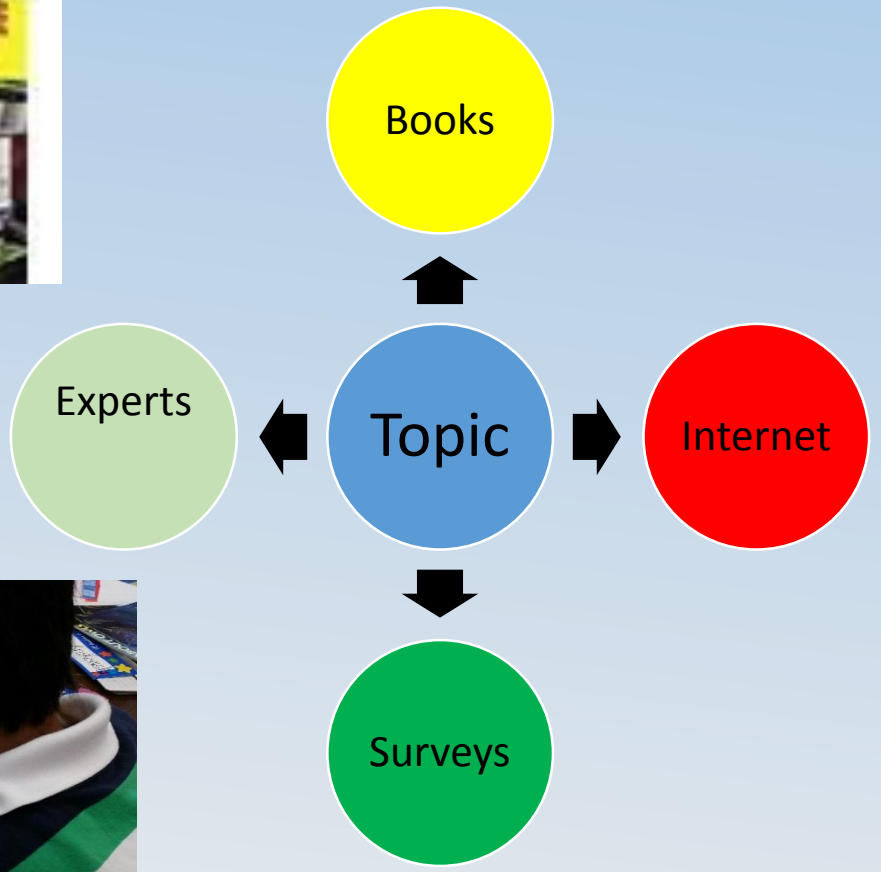
Visit websites Like

Kids go Global http://www.kidsgoglobal.net/the-issues/



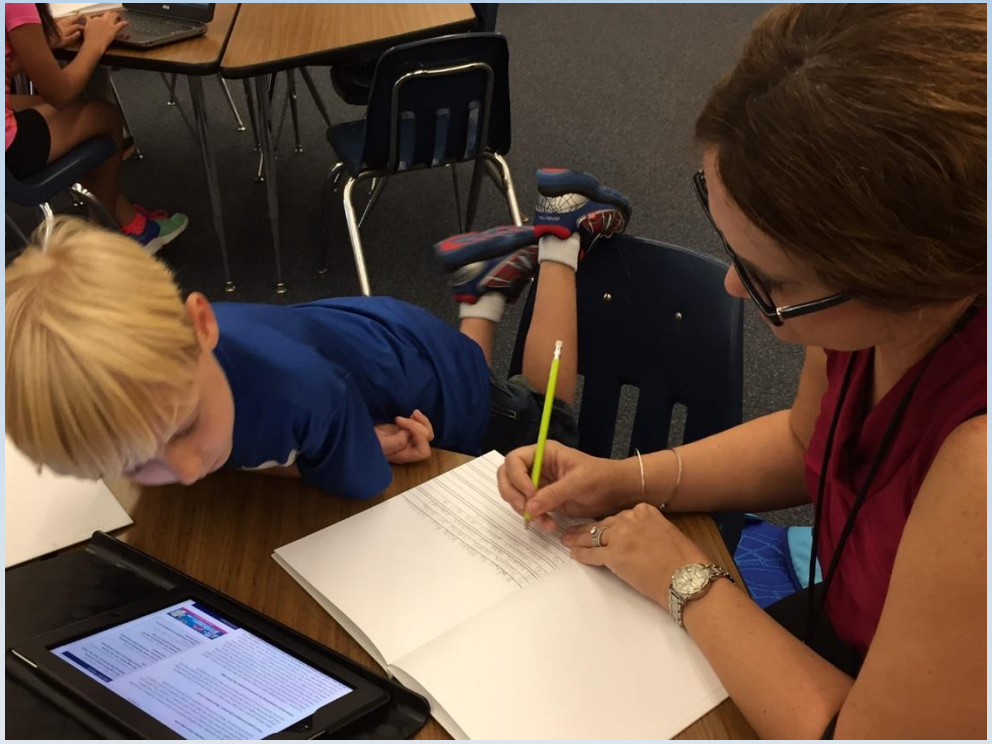
Building research skills

How to Search the Internet

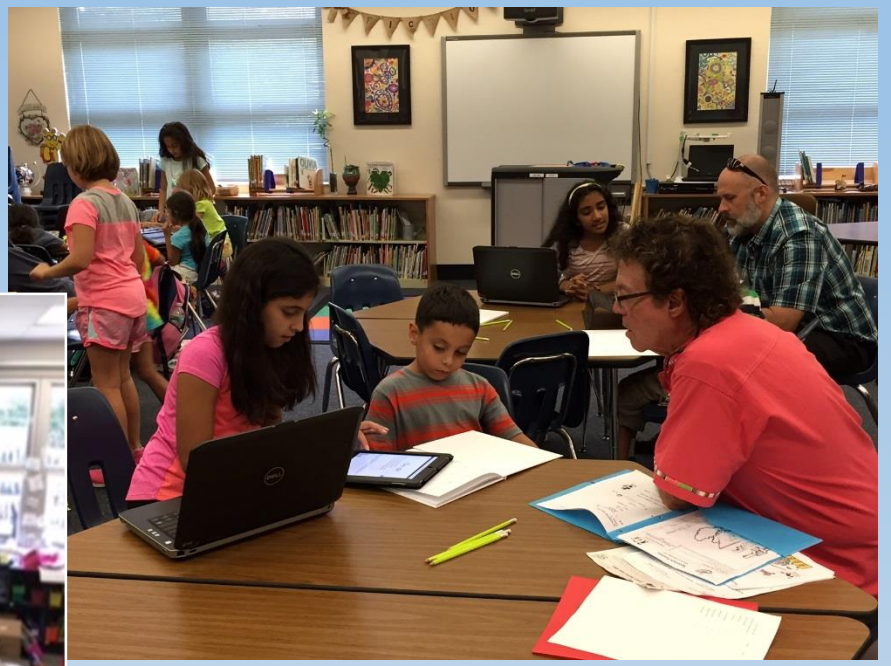


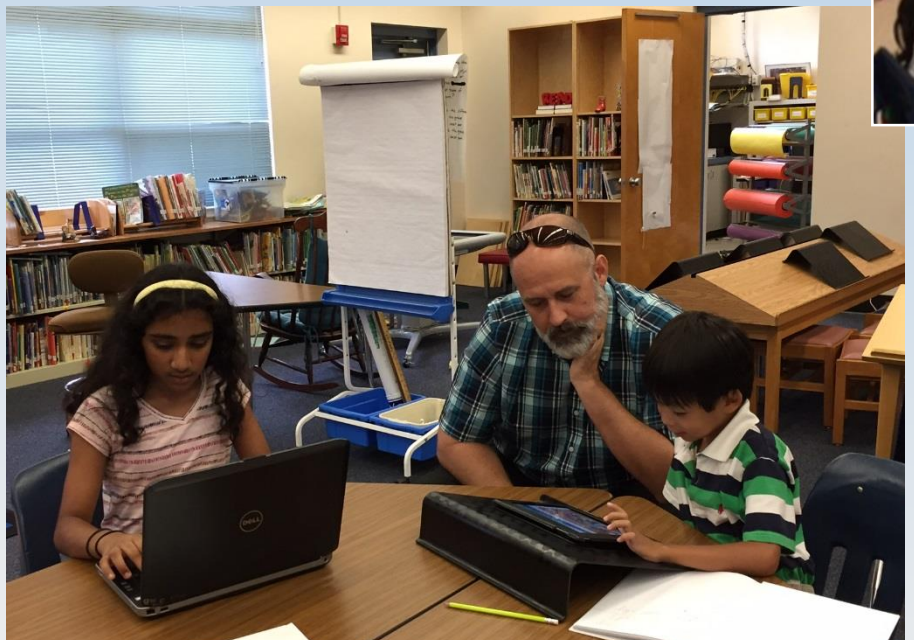
Students using their Researcher's Journal

Modeling how to use the journal



Student gathering background information in her journal

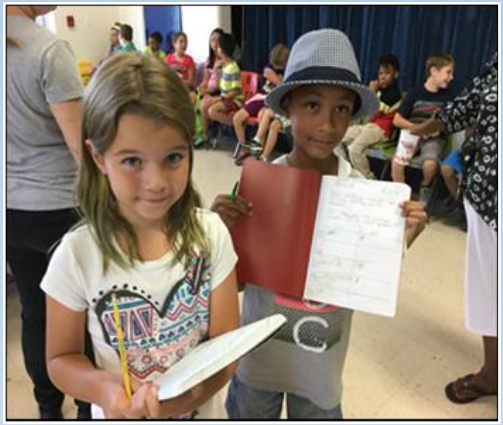




Students building survey questions

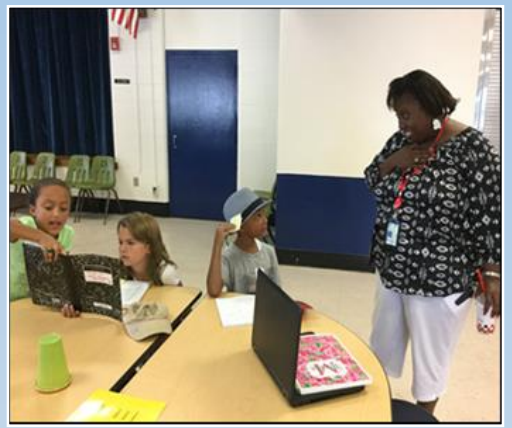
Gathering authentic data through surveys

Enjoyment



Engagement

Enthusiasm

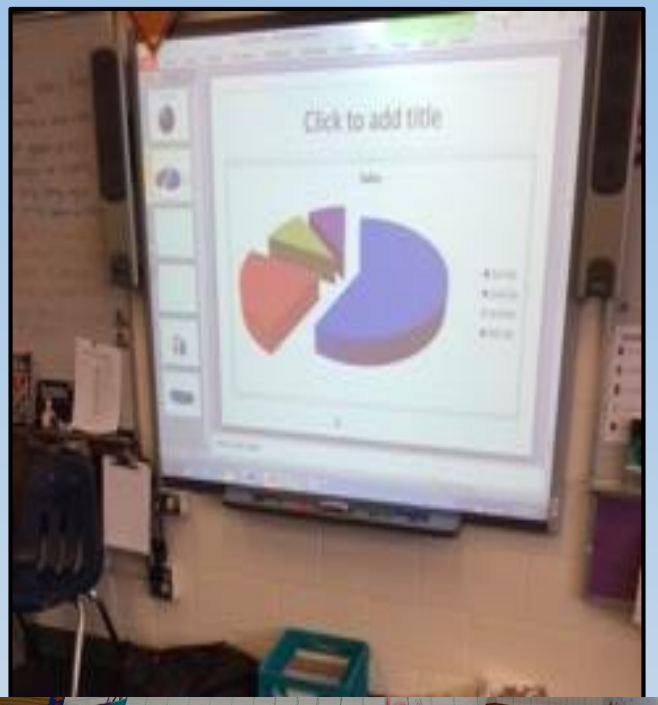


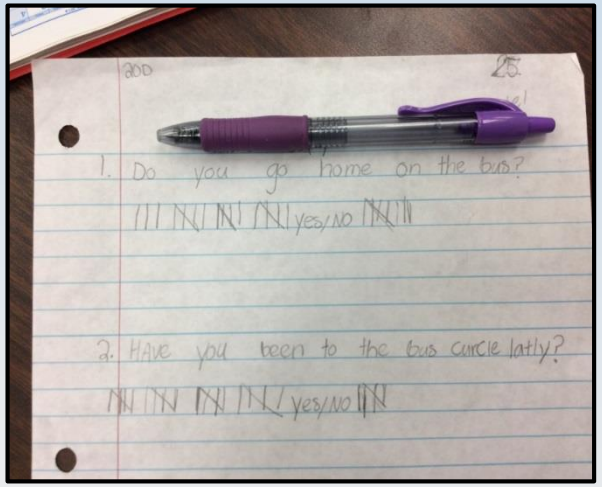
Enrichment

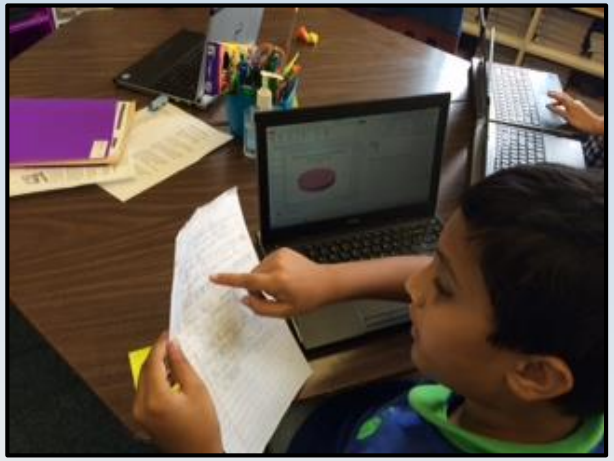
Data Analysis-Guiding Questions

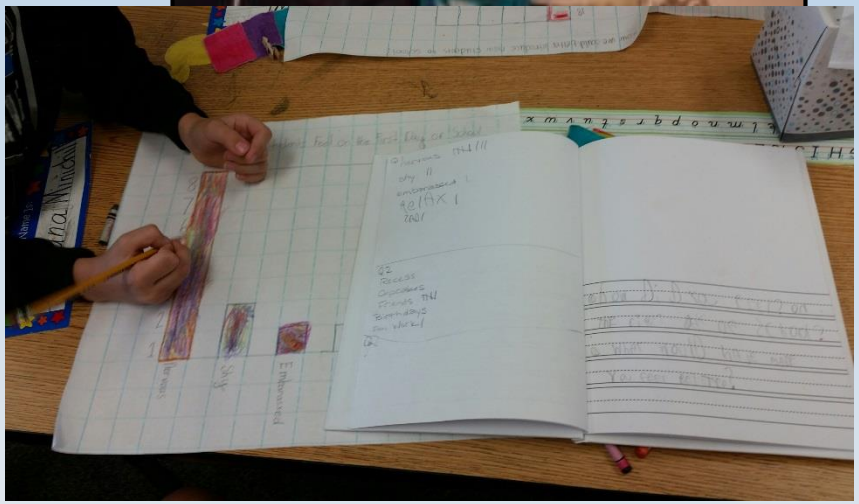
- What can you learn from the data?
- What patterns, insights, and new understandings can you find?
- How do these patterns, insights, and new understandings help

  in making a recommendation for the solution?









Solution

Primary

Students decide on one solution to create a plan of action for.

Students use technology to create a PowerPoint presentation or other media tools to share their action research and implement their plan.

Intermediate

Students list 2-3 solutions to address the problem with 1-2 paragraphs explaining each solution.

Students select the best solution and write 2-3 paragraphs justifying this choice.

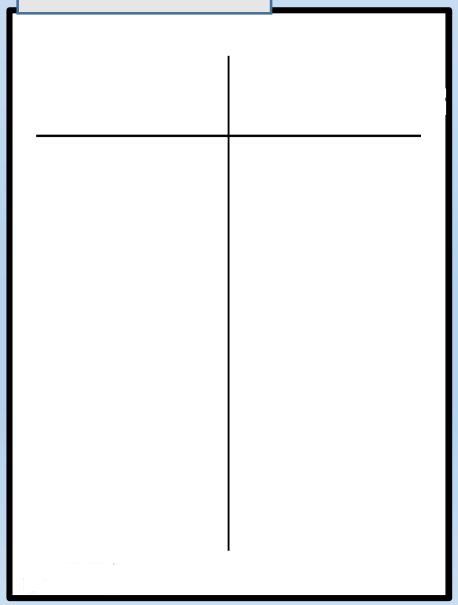
Students write 2-3 paragraphs how the solution should be implemented to best address the problem.

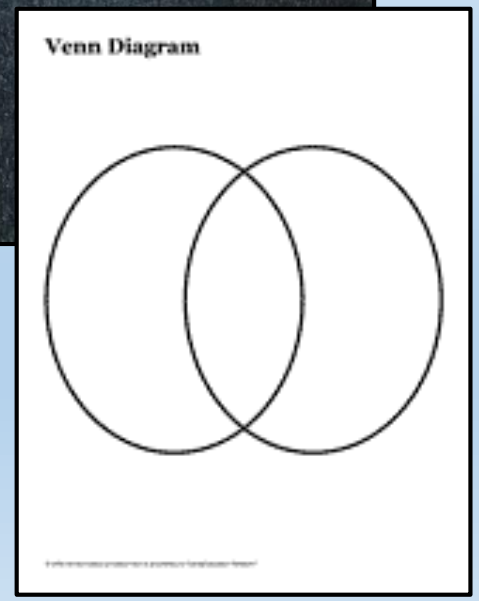
Any implications on future challenges or solutions can be shared.

Students use technology to create a PowerPoint presentation or other media tools to share their action research.

Discussing Solutions

T-Chart



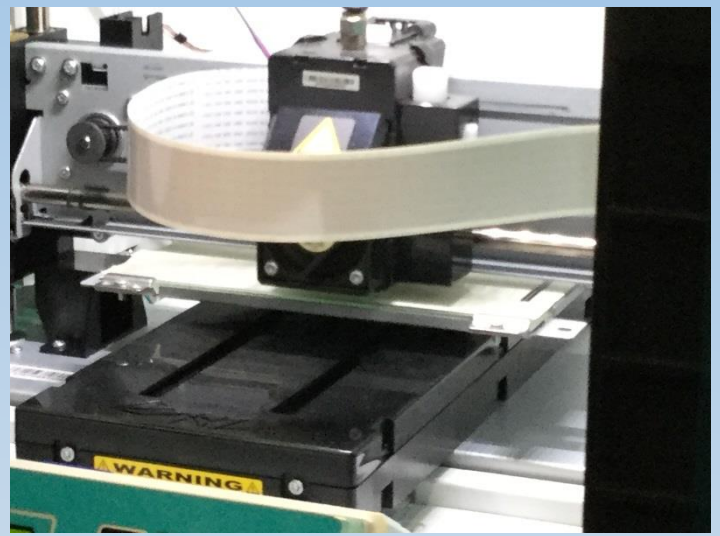


Global Warming

Planting trees to absorb Carbon Dioxide

Welcoming New Students

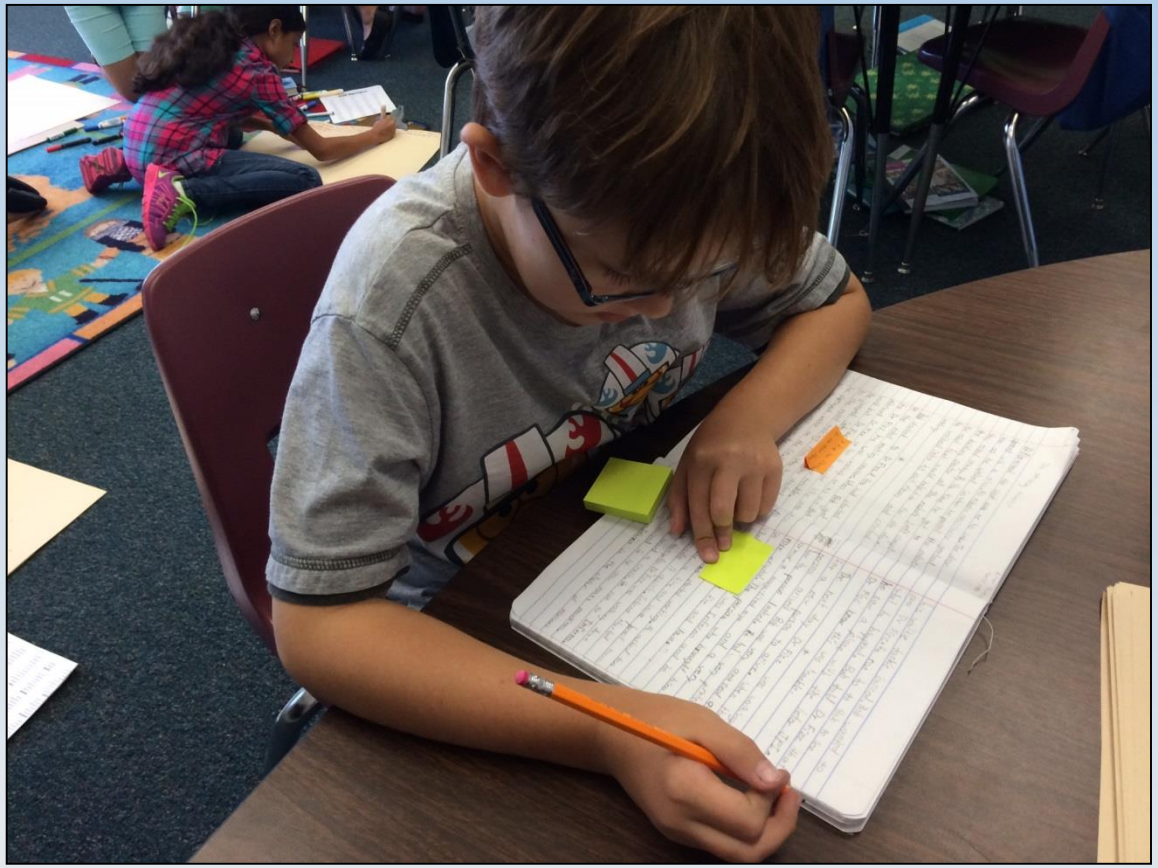
with Welcome Bags



Future Implications

- What could be possible problems
  in the future?
- What could some of the difficulties be?
- What are the points of caution?
- What are the weaknesses?
- What are the risks?

Self-Critiquing & Reflection

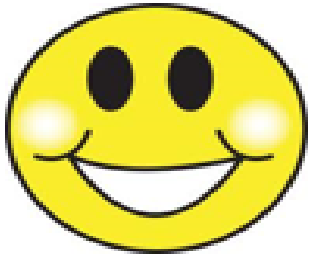
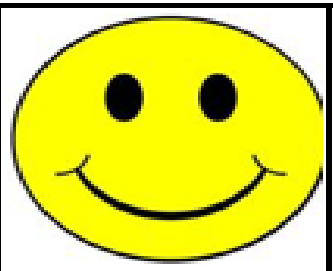


Final Action Research Journal Checklist

Include the following information in your journal:

- ____ Problem/Issue you are Studying
- ____Building Background Knowledge
- ____Research/Survey Question
- ____Data Collection Plan
- ____Data Analysis, Reflection, and Graph
- ____Proposed Solution(s)
- ____Future Implications
- ____Reflection on the Entire Research Process
- ____Research Presentation Plan to Defend Recommendations

Action Research Rubric

				
Questioning	My question is clear, well-focused and requires high level thinking skills in order to research.	My question is clear and well-focused. My question requires moderately high level thinking skills.	My question is incomplete and unclear. My teacher needed to help me form a question.	I was unable to come up with a research question.
Planning	I made really good use of my time. I was able to remain focused on the tasks and make changes when I needed to. I was able to develop a clear method to organize my information. I was able to make revisions in my plan when needed.	I was able to work within the time frame my teacher gave me. I was able to develop a system to organize my information. I was able to make revisions with help from my teacher.	I needed teacher help to list and organize what I needed to do. There are some steps missing in my planning. I made revisions with teacher help.	I was unable to come up with an organized plan and work within the time limits.
Gathering Information	I used a variety of resources and carefully selected only the information that answered my question. I was able to continuallly revise my search based on information I found.	I used many resources to find information that answered my question. I tried at revising my search, but had some problems doing so.	I used 1 or more sources. Original question or focus guided my search, although I should have made revisions. I made errors in selection of references.	I lost focus during the gathering process and therefore my information was not accurate and complete.
Sorting Information	I thoroughly selected and organized information that answered my question in a organized way. I	I sorted information and organized information that answered my question without too many errors.	I tried to organize the information I found, but I made some mistakes. I wasn't able to completely stay focused on	I was unable to sort and organize the information I found to answer my question.

Our Ridgecrest Action Research Story

First Graders' Perspective of Action Research

Mentors' Perspective of Action Research

References/Resources for further study

Center for Collaborative Action Research
http://cadres.pepperdine.edu/ccar/resources.html

Cochran-Smith, M., & Lytle, S. L. (2009). *Inquiry as a stance: Practitioner research for the next generation*. New York: Teachers College Press.

Dana, N. F., & Yendol-Hoppey, D. (2009). *The reflective educator's guide to classroom research. Learning to teach and teaching to learn through practitioner inquiry.* Thousand Oaks, California: Corwin Press.

De Bono, E. (1999). *Six thinking hats Edward De Bono.* Boston: Little, Brown

Lastinger Institute - http://lastingercenter.com/

VanTassel-Baska, J. (2003). Content-based curriculum for high-ability learners: An introduction. In J. VanTassel-Baska & C. A. Little (Eds.), Content-based curriculum for high-ability learners (pp. 1-23). Waco, TX: Prufrock Press.

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