

BYRAM HILLS CENTRAL SCHOOL DISTRICT  
ARMONK, NEW YORK

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**Year:** 2012-2013  
**School/Grade:** Wampus Elementary School, Grade 5

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SUMMARY OF *INVESTIGATORS OF PRACTICE* ACTION RESEARCH PROJECT

**Context:**

We both teach enrichment and elective courses at Wampus Elementary School, a building with grades 3 through 5. Both classes have flexible grouping that rotate throughout the year, requiring us to constantly set norms with new groups of students each month. We have noticed a vast difference in the way girls and boys use their space in the classroom. When we recognized this pattern over and over, we became fascinated by the consistency in which it occurred, no matter what the subject or specific learning space.

This year, we decided to collaborate to learn more about gender-based learning styles. Our focus was a fifth grade heterogeneously grouped Encore Class grouped by instrumental, remediation, and enrichment needs. The physical needs of the boys in this class were quite astounding, and we found it was worth learning how best to meet those needs in new ways.

**Action Plan:**

The questions we chose to address were the following:

1. What gender-based research strategies can be applied in our classrooms to recognize individual student needs?
2. What are effective strategies used to support a successful gender-based learning environment?
3. What are some observable behaviors exhibited by boys and girls when working in a variety of classroom settings (i.e. seatwork, group discussions, independent reading, etc.?)

Two books that informed our inquiry project discussed the research aspect of brain-based differences in girls and boys, and traced their development from birth through the schooling process. (*Boys and Girls Learn Differently*, Michael Gurian, 2001; *The Trouble With Boys*, Peg Tyre, 2008.) Included in these books were practical teaching and parenting

strategies to allow for maximum success in the learning environment. In addition, the authors state that special attention should always be paid to those exceptions to the rule; boys or girls that do not follow the traditional needs of their peers require particular attention from the teacher to ensure they, too, have adequate accommodations as needed.

The article, “The Boys at the Back,” by Christina Hoff Sommers (February 2, 2013), mentioned how the shift from a labor-intensive economy to a knowledge-based one shifted the value of college and post graduate degrees. “In 1985 boys and girls took Advanced Placement exams at nearly the same rate. Around 1990, girls moved ahead of boys and have never looked back.” Based on such recent research we felt a gender-based strategies very worthy subject to explore.

Gurian’s key points to a successful elementary classroom include:

- Be innovative with school structures, such as decreasing class size and increasing student-teacher ratios
- Be mindful of too much technology
- Develop an “outdoor classroom”
- Utilize outside mentors
- Create a step-by-step clear discipline system that students can follow
- Provide innovative ways to teach language arts, such as using manipulatives for reading, provide a variety of learning modalities, utilize single-sex learning, and extra encouragement for girls
- Innovations for teaching math and science should include externalizing thought processes, mixing modalities and strategies for teaching, and the use of manipulatives
- Use cooperative learning groups

#### **For the Boys:**

- Provide teacher training on brain-based learning
- Use boy-only groups when needed
- Encourage bonding with teacher
- Pay special attention to less competitive, more sensitive boys in the classroom
- Allow for physical movement
- Be sure there are male role models in the student’s school life
- Include storytelling and creation to increase imagination and verbal skills

#### **For the Girls:**

- Provide teacher training on brain-based learning
- Teach math using manipulatives, and through the use of graphs and charts
- Use manipulatives for science lessons
- Use girl-only groups when needed
- Provide ample opportunities to use technology
- Provide stories of successful, competent female role models
- Connect math and science lessons with journal writing

## Results:

Anecdotal data was collected. Listed below are 3 examples of group activities that we conducted, utilizing some of Gurian's suggestions and modifications:

**Dec. 21:** *Encore Class, Shakespearean Maypole Dance.* Class is unable to learn steps and complete dance as a group. We divide up and I continue to teach dance, having the kids speak the steps aloud as we go. Once they feel they have mastered it, I ask them to say the steps only in their heads. I give them a challenge – girls will do the dance first, then the boys, to see which group can make the best “braid” on the Maypole. It is evident from the reactions of both groups that they all feel the girls have a huge advantage. The girls go first, and although they get the steps correct, the braid is messy. They are all surprised. Then the boys take their turn. They revert back to saying each move out loud, but are motivated and engaged. Once the braiding begins, they do a terrific job of working together; as they realize it is working so well, they become louder and more excited. Bottom line- their braid was near perfect, and their excitement bursts out. One boy states after it is all over, “Bet you didn’t see that coming, did you?”

This activity demonstrated the boys’ success when both physical and verbal cues were used. The spirit of competition helped them to remain focused and gain success.

**Jan. 24:** The students in this class were given a choice of writing prompts from which to choose. Students grouped up and were given the directive to choose one prompt and write a scene that sets the stage for the action in the prompt. Students were asked to write a dialogue which would then be performed in front of the class in a few days’ time.

There were 9 groups. One group contained 2 boys/2 girls. All the other groups were either all boys or all girls. All students were given a copy of the assignment, pencils, clipboards, and paper. They were instructed to create their scenes. I observed the following:

- 3 groups of girls immediately asked me if they could use the computer right away, and work directly that way. One pair of boys followed suit.
- The other group of girls found a quiet corner to sit and brainstorm away from the main part of the room.
- 3 boys’ groups immediately started chatting excitedly. They were standing, moving, and “trying things out,” but not writing anything down.
- The mixed group also stood around for a few minutes, discussing what to write. One of the girls took the clipboard and began to take notes.

When I asked the boys how their work was going, they explained that they needed to “work the whole thing out first,” and then they would write the dialogue. This was true of all the groups that contained boys (with the exception of the pair at the computer.) They were physically moving, talking, trying out

different lines, words, and actions, to see what they liked. Even when they began writing, they were standing. The girls discussed each line, and then wrote it. It appeared to be a systematic approach to complete the task. The groups on the computer also discussed the plot and wrote a line at a time (or a burst of conversation at a time). They did not get up from their chairs at all during the 40 minute period.

All groups eventually completed a written (or typed) script and performed it. The methods they chose to employ varied quite a bit, but having the choice to approach the task on their own terms helped them succeed in a way that felt most natural for the students.

**March 26:** During one class period, the students were grouped by gender and participated in a Rube Goldberg problem-solving activity. Each table was given several objects, including string, dominoes, cup, ball, ruler, a piece of wood and some books. Their task was to use the items on the table to get the ball in the cup in as many steps as possible. The boy tables were spirited and excited for this task. Not once did anyone sit down. They used the table the objects were on as a way of rolling off onto the cup which was on the floor. Two students who were frequently distractible were completely focused and successful at completing the task. The girls, on the other hand, never stood up while completing the task and sat quietly, focused on getting the ball in the cup. After months of observing these students and reading about gender based teaching, my colleague and I were in awe. Once again, we noticed that the spirit of competition helped the boys gain success.

Through anecdotal data, we confirmed many of the behaviors that were discussed in the literature we read. By experimenting with the space in our classroom, the types of groupings we use, and the variety of ways to complete a task, our students found their own best way to stay focused and complete the task successfully.

We also created a survey for the students to take based on movement in the classroom. Some of the questions we included were:

*I am a: BOY \_\_\_\_\_ GIRL \_\_\_\_\_*

*Please answer true or false to the following:*

*Students learn differently and this survey is to help teachers understand what type environment is best for different learners.*

- 1. I learn best in a room where I can get up and walk around when I feel like it.*
- 2. I learn best in a room where everyone is quiet but I can choose where I sit*
- 3. I feel more comfortable sitting on the floor than my desk.*
- 4. I feel uncomfortable when my classmates call out.*
- 5. I prefer a teacher who allows calling out and is flexible.*

The results from our survey were mixed. Based on the results, most students, regardless of gender, enjoy a quiet classroom with the flexibility to move around. We

were unclear if the students thought these were the answers that were “expected” of them, or if this was a truly honest survey. This is an area that we would like to explore further, which includes the self-awareness of students’ learning needs.

**Implications:**

We feel that we’ve been able to provide a more flexible learning environment that allows for making allowances for same-gender groupings, more physical space and movement during lessons and consideration for what makes each gender feel at ease. Our level of empathy has also been increased as our awareness grew. All of these things add to a more successful classroom environment for our students.

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