THE EFFECTS OF HOMEWORK ON STUDENT ACHIEVEMENT
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WHAT DOES HOMEWORK LOOK LIKE IN OUR CLASSROOMS?

- Non-Example
I chose to research the effects of homework on student achievement. After hearing many professional conversations among colleagues, talking with parents, and seeing a discrepancy among classroom homework policies, I wanted to see if homework actually had a positive effect on the achievement of our students. I explored the topic in graduate courses and wanted to further my knowledge better meet the needs of my students and implement research based best practices in my classroom. My research and personal philosophy is focused on homework in the primary grades.
According to Robert Marzano, Debra Pickering, and Jane Pollock (2001), there are four researched practices that can make homework effective.

1. The amount of homework assigned each night should differ based on the grade level of the student.
2. Parent involvement in the actual content of the work should be kept to a minimum.
3. The purpose of homework should be identified and articulated.
4. If homework is assigned, the children should be given feedback.
The amount of homework assigned each night should differ based on the grade level of the student.

- Marzano, Pickering, and Pollock (2005), as well as the Norwin School District, recommend time spent on homework to be approximately ten times the child’s grade level.

<table>
<thead>
<tr>
<th>Grade Level</th>
<th>Time Spent on Homework</th>
</tr>
</thead>
<tbody>
<tr>
<td>Kindergarten/1st grade</td>
<td>10 minutes</td>
</tr>
<tr>
<td>2nd grade</td>
<td>20 minutes</td>
</tr>
<tr>
<td>3rd grade</td>
<td>30 minutes</td>
</tr>
<tr>
<td>4th grade</td>
<td>40 minutes</td>
</tr>
</tbody>
</table>
The amount of homework assigned each night should differ based on the grade level of the student.

- After researching the works of Harris Cooper (1989) it was concluded that homework produces a gain of 24 percentile points at the high school level, 12 percentile points at the middle school level, 6 percentile points at the intermediate level, and that there was no relationship linking elementary school homework to achievement.

- Cooper did not conclude that therefore homework should not be given at the elementary level since it still may foster good study habits. However, the homework should be far less time consuming.
Parents should be part of the homework process but not in the content.

Parents should be involved in:
- Awareness of assessment schedule
- Preparation of a homework space and routine
- Contact with the teacher if there is a problem

Strong (2007)
THE PURPOSE OF HOMEWORK SHOULD BE IDENTIFIED AND ARTICULATED.

- There are three purposes for homework; practice, preparation, and elaboration.
- Practice based homework is review of a taught concept for reinforcement and refinery.
- Preparation homework prepares students for something they will study in the near future at school.
- Elaboration homework encourages students to explore related concepts to those taught.
- For best results from homework, students should be made aware of what type of homework they are receiving, why they are doing it, and expectations for completion. (Strong, 2007)
If homework is assigned, the children should be given feedback.

- Providing feedback has been proven to enhance student achievement. Feedback is one of the most powerful modification techniques in increasing learning outcomes in students (Beliner & Rosenshine, 1977; Walberg, 1984).

- In regards to homework, our goal should be to provide every student with high quality, specific feedback. However commenting on every child’s homework each night seems infeasible. In response to this struggle Marzano, Pickering, and Pollock recommend teaching students to self-reflect on their own work.
“Practice Makes Permanent”

- According to Wormeli (2008), “Practice makes permanent even though it may or may not make perfect.” If children are assigned homework prematurely before teachers are sure of understanding practice is not going to be effective in a goal towards mastery.

- Practice is more effective when distributed in small doses over several days or weeks (Marzano, Pickering, & Pollock, 2005).
ARE KIDS LIKE VENDING MACHINES?

- Alfie Kohn: "Are kids like vending machines?" - YouTube
I teach two half-day kindergarten classes. Both classes were given an addition diagnostic test. Results are listed in the chart below.

<table>
<thead>
<tr>
<th>Class</th>
<th>Average Score</th>
<th>Average Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>AM</td>
<td>4.65/6</td>
<td>77.5%</td>
</tr>
<tr>
<td>PM</td>
<td>4.57/6</td>
<td>76%</td>
</tr>
</tbody>
</table>
After reviewing results of the diagnostic assessment, both classes were then planned and taught with the same instruction and learning experiences based on the needs of the children. Each night the afternoon class received Envision series re-teach, practice, or enrichment homework based on the understanding of the child. At the culmination of the unit, the afternoon class was given a practice test for homework two days prior to the test. The morning class was not given the practice test at all.
Both classes were then given an in-class test. It was twelve multiple choice and free response questions. Results are shown in the chart below.

<table>
<thead>
<tr>
<th>Class</th>
<th>Average Score</th>
<th>Average Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>AM</td>
<td>11.1/12</td>
<td>92.5%</td>
</tr>
<tr>
<td>PM</td>
<td>11.1/12</td>
<td>92.5%</td>
</tr>
</tbody>
</table>
In addition to my research above, I also compiled the results of parent and teacher surveys.

The parent surveys were given to all parents in my A.M. and P.M. classes. Twenty nine out of forty four surveys were returned.

Teacher surveys were given to all classroom teachers at Stewartsville. All surveys were returned.
RESEARCH
THE EFFECTS OF HOMEWORK ON STUDENT ACHIEVEMENT

- Even with the lack of research of the effectiveness of homework in primary grades, 100% of the parents that returned surveyed in my kindergarten classes felt that children should have homework in elementary school.
- 83% of parents surveyed felt that homework has a positive effect on the achievement of their child.
- Many parents commented that homework keeps them involved with their child’s learning. They also felt that it creates positive study habits for the future and instills the idea that school work is important.
- The type of homework that parents preferred was the biggest variable. Some prefer math, others prefer reading, and most prefer non-traditional types of homework which I will discuss later.
Research
The Effects of Homework On Student Achievement

- The teacher surveys were similar. Most teachers, with a small exception on the upward side, tend to believe in the expectation set by Norwin for the appropriate time frame of homework throughout the grade levels.

- In regards to the effect on student achievement several common themes arose among the teacher surveys. Those themes were parent involvement, authentic work, and reinforcement.
The surveys that I found most interesting were that of the teachers who are also parents. One teacher/parent responded, “Reading with your children is most beneficial, but I think that sometimes reading is forgotten because there is too much other stuff. The kids need a chance to read a book of their choice for enjoyment along with the ones that are chosen for them.” Another responded, “My third grader struggles in school for seven hours because it is tough for him. He has a reading disability. Then he comes home and my husband and I fight with him for another two hours to do homework. There are tears, tantrums, breakdowns, and even depression. Homework is terrible in our house.”
Recommendations

- As result of my research I feel the Norwin homework policy in place for primary students is acceptable as long as teachers have homework that is authentic and relevant, not “busy work.”

- Just because someone teaches fourth grade and the handbook says that you should give 40 minutes of homework an evening does not mean that a teacher should just make something up to abide by the rule. Maybe that time could be designated to a reading of their choice instead of a meaningless assignment.
RECOMMENDATIONS

- A stipulation that I added in my own classroom was that the child was to work for 10 minutes. If after 10 minutes, the work was not complete, they still stop and the parent just notes on the top of the paper that this is what we finished in 10 minutes. That way, I know there is a problem with either the assignment or the child’s understanding and I need to re-teach.
Even though my findings suggested that homework does not impact the performance of a kindergarten child on their math test, parent surveys told me that yes, parents want homework to establish good study habits and stay informed about their child’s school work.
RECOMMENDATIONS

- As teachers have become so flexible in adapting their work in their classroom to meet the needs of their students we also need to become accustomed to adapting our homework to meet the needs of our students as well.
IMPLICATIONS

- As result of my parent survey and informal observations noted throughout this school year on student motivation I have plans to change three things in my classroom next year.

- We give a Harcourt provided literacy homework grid with fifteen tasks to be complete every three weeks. I will still be giving a literacy grid, but I plan to create my own and develop more meaningful tasks.

- For example, the Harcourt grid may have an assignment to make a bug collage in January when we are working with our theme about bugs. I think that assignment is irrelevant busy work. I will replace it with something such as, in the car with your child play a rhyming game to generate a word family. You say a word and your child has to rhyme. Go back and forth until you can’t think of any more. Another example would be to ask your child to retell the story I read in school today. Have them draw a picture of the setting in their homework journal.
IMPLICATIONS

- In regards to math homework, I will send only skill practice from the manual that I feel are authentic, appropriate, and necessary. I will thoughtfully look at each assignment and make a professional decision.
IMPLICATIONS

My own philosophy on homework and confirmation from parent surveys propels me to create more non-traditional homework assignments for my classroom next year. When young children sit down with their parents and have a conversation about what they learned in school today we are keeping the family involved and the children are learning and even acquiring a deeper understanding.
IMPLICATIONS

For example, this year I made a “Words for Dinner” placemat. I put high-frequency word cards that each child was struggling to memorize on a piece of construction paper and laminated it. The child was to use that placemat to eat off of at a family meal time. A list of ideas was sent home to the parents for reviewing the words at meal time.

..\K placemats\Words for Dinner letter.pdf
When learning about the life cycle of a butterfly, I wrapped fake butterflies in tissue paper and had the children act out the life cycle for someone in the house using the prop I gave them.
IMPLICATIONS

- The boys and girls used this method to add using the part-part whole model. They put manipulatives in one ear, manipulatives in the other ear, and then brought them all together in the face to see how many in all! The children had to take their plate home and teach a family member how to use it to add.
THANK YOU FOR YOUR TIME AND SUPPORT IN MY RESEARCH!