

# HOMEWORK

VC Connect 2022

# RESEARCH

What do the experts say?



# CHALLENGE SUCCESS

*Transform the Student Experience*

67% of students report homework is a primary source of stress



Student surveys of more than 5,000 students show that 57% of students think they have too much homework



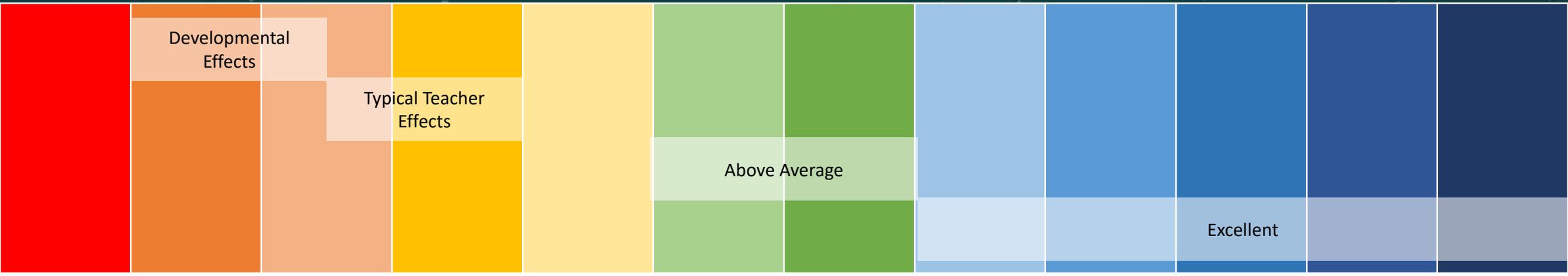
“the relationship between homework completed and achievement is strongest at upper grades and for teacher-assigned grades (as opposed to performance on standardized tests).” (American Psychological Association) ☆



# Hattie Effect Sizes

**0.15**  
**Homework**  
(Primary Grades)

**0.64**  
**Homework**  
(Secondary Grades)



0 0.2 0.4 0.6





“At the high school level, for every 30 additional minutes of homework completed daily, a student's GPA can increase up to half a point (Keith, 1992).” (Northwestern Regional Educational Laboratory)

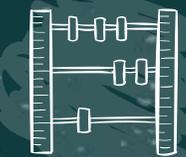
# COOPER'S META-Analysis



Students who do homework generally receive higher test scores, but the correlation only accounts for about 4% of the score.



The more time spent on homework, the higher the achievement gains.



Homework completion impacts unit test scores and course grades far more than standardized test scores.



“...the highest effects in secondary [education] are associated with rote learning, practice or rehearsal of subject matter; more task-orientated homework has higher effects than deep learning and problem solving.”



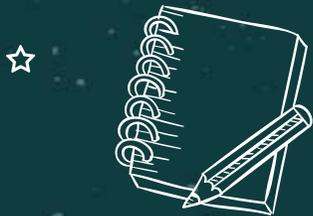
Overall, the more complex, open-ended and unstructured tasks are, the lower the effect sizes.



Short, frequent homework closely monitored by teachers has more impact than their converse forms and effects are higher for higher ability students than lower ability students, higher for older rather than younger students.”

(Sherrington summarizing Hattie's research)





“Homework that involves practice and review of lessons previously taught as well as simple introductions to material of upcoming lessons, is especially beneficial. Assignments that require students to integrate skills or apply concepts to other areas of the curriculum are also desirable. Finally, homework works best if the material is stimulating, but not too complex, if the lessons are in keeping with students’ abilities and home realities, and if it is assigned with a clear goal in mind—not just as busywork.”

(Westchester Institute for Human Services Research)



Benefits of Completion

Work is seen  
as purposeful,  
meaningful, or  
interesting

Work seems  
tedious or  
boring  
Work is too  
advance or  
confusing

Decreased Engagement

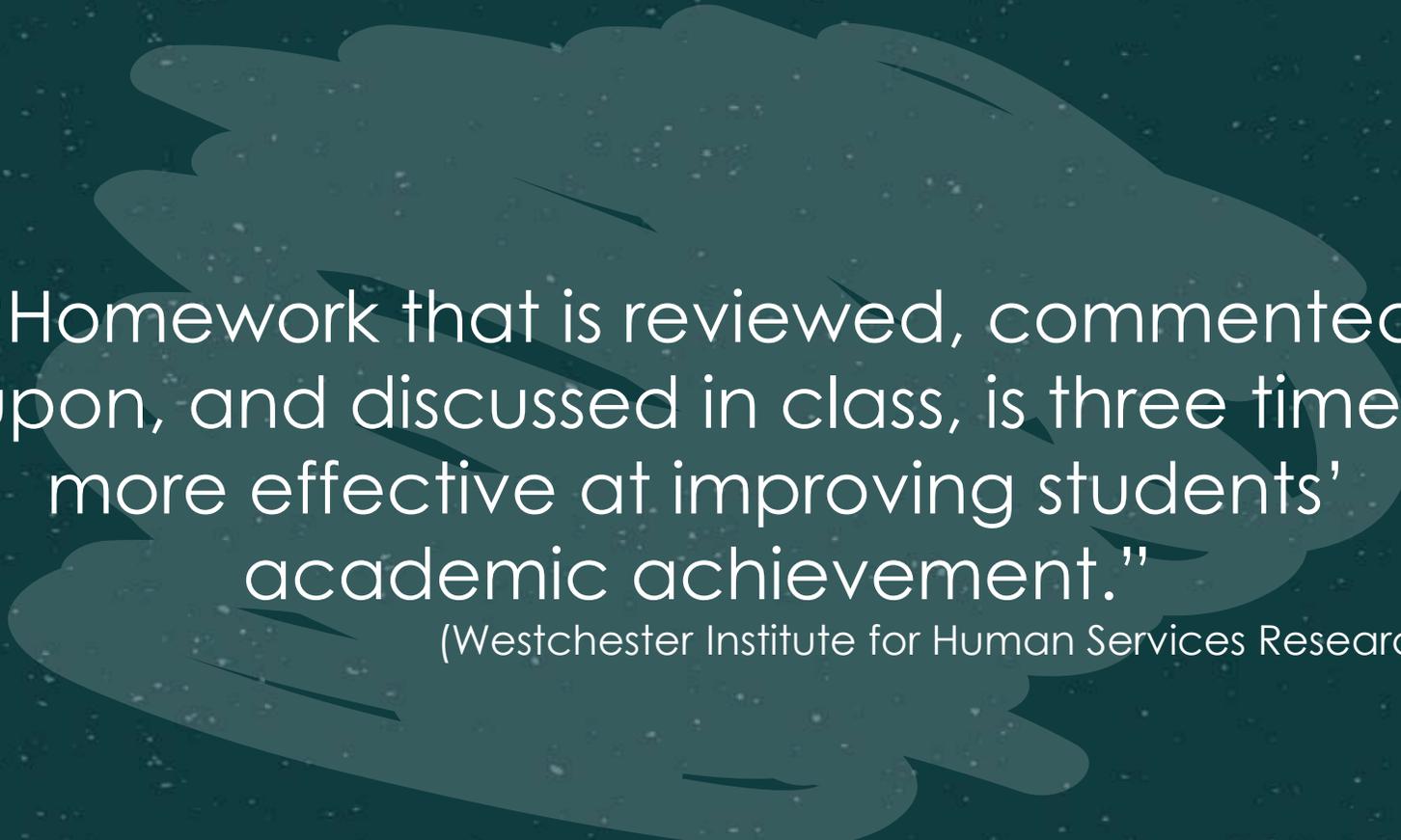
☆

“At secondary level Hattie suggests there is no evidence that prescribing homework develops time management skills...”

(Sherrington summarizing Hattie’s research)

☆





“Homework that is reviewed, commented upon, and discussed in class, is three times more effective at improving students’ academic achievement.”

(Westchester Institute for Human Services Research)



Feedback has a bigger impact on learning than grading the homework.



Grading can bring about a negative relationship between students and homework. Students fear consequences and lose out on the intrinsic reward of learning, replacing it with an external motivation. When the primary motivation is external, students are more likely to cheat.



The logo for 'ism' is displayed in a bold, blue, lowercase sans-serif font. A registered trademark symbol (®) is positioned to the upper right of the letter 'm'. The logo is contained within a white rectangular box.

# Myth

The amount of homework a student has every night is a direct correlation to the academic challenge/excellence at the school, i.e., the more homework, the more challenge/excellence



**ism**<sup>®</sup>



Harris Cooper (professor at Duke University) conducted a review of the existing research on homework in the mid-2000s, and found that, up to a point, the amount of homework elementary students reported doing correlates with their performance on in-class tests. This correlated with the “rule of 10.”



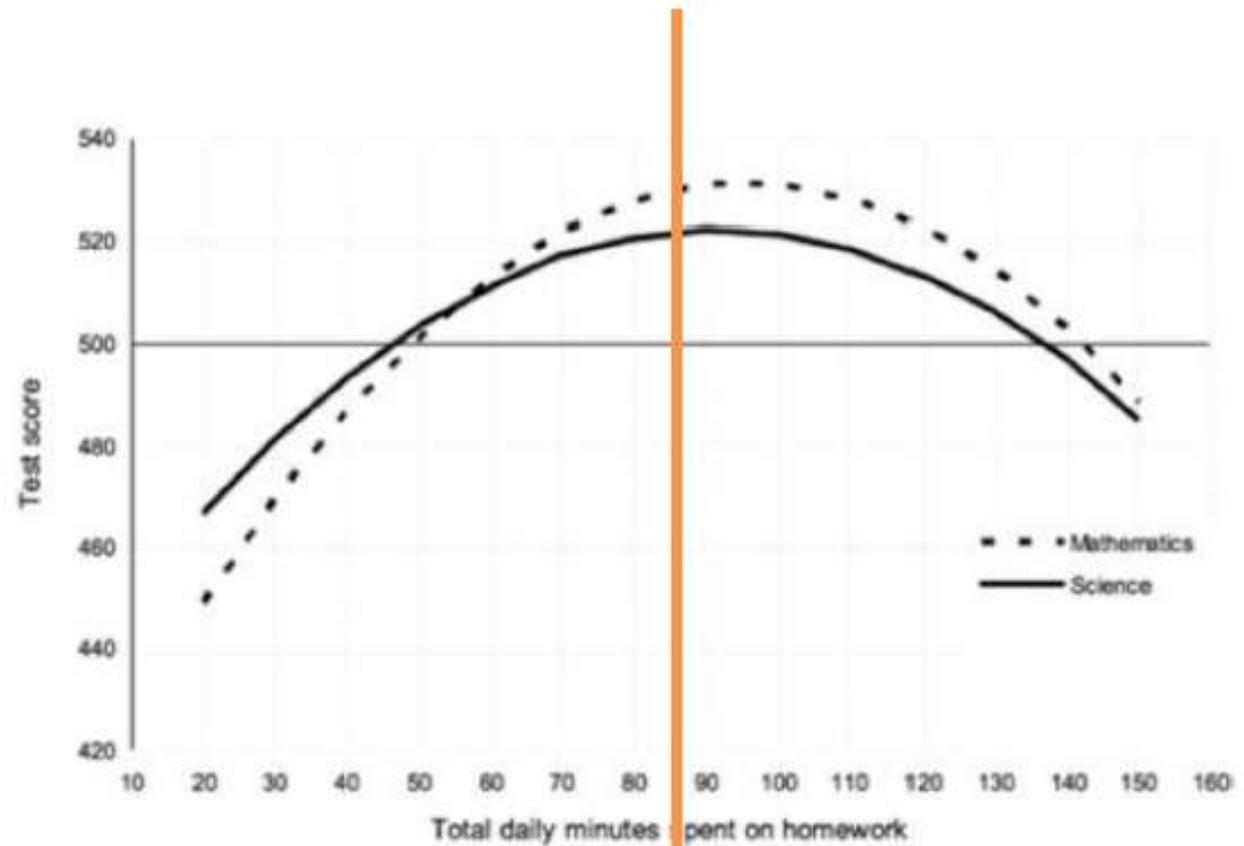
10

Rule of 10: “students should do no more than 10 minutes a night per grade level — from about 10 minutes in first grade up to a maximum of about two hours in high school. Both the National Education Association and National Parent Teacher Association support that limit.”



## Homework and Point of Diminishing Returns

Lam (1996) found highest achievement between 12<sup>th</sup> grade students who did 7-12 hours per week, greater than those that did 13-20 hours. Suggests 1 ½ - 2 ½ hours is optimal.



Fernández-Alonso, R., Suárez-Álvarez, J., & Muñiz, J. (2015, March 16). Adolescents' Homework Performance in Mathematics and Science: Personal Factors and Teaching Practices. *Journal of Educational Psychology*. Advance online publication. <http://dx.doi.org/10.1037/edu0000032>

# Latest Research on Homework

Denise Pope (Stanford University) March 27, 2014

Journal of Experimental Education, 2014

- 4317 student from high-performing High schools in upper-middle-class California
- Median household income > \$90,000
- 93% of students went on to college

## Conclusions:

- More than 2 hours of homework can diminish its effectiveness and be counterproductive due to greater stress: sleep deprivation, exhaustion, weight loss, headaches and stomach problems; lack of time for friends, family and extracurricular pursuits
- No relationship between time spent on homework and how much the student enjoyed it



# Evaluation of Homework at VCS



# Student Dislikes

- VCJH Student: Not all teachers post homework on Google classroom; one teacher posted study materials at 8:00 pm – I couldn't study because I didn't bring home my book
- VCJH Student: Some of the assignments are put on Google classroom, but don't have a due date
- VCJH Student: Too much homework
- VCJH Students: 8 students said they want less homework



# Student likes



- VCJH Student: No homework
- VCJH Student: They are understanding when you can't get your homework done 
- VCJH Student: You don't have to get everything in
- VCHS Student: A/B schedule – time to do the homework we have
- VCHS Student: Have kids do study guides in class





# Strengths



Students have 2 days to complete their homework

Published homework and testing policy provides predictability and support:

Students are expected to practice skills and set aside approximately two hours (in non-honors classes) each night to focus on their academic development.

Students receive homework/classwork “excused passes,” equal to 10% of assignments in that category in each course each semester.



If a student emails a teacher, cc'ing a parent as well, a day in advance of an assignment due date that an assignment cannot be completed, the student will not need to use a homework pass -- teacher will pace a zero in the gradebook until the assignment is submitted

No homework should be assigned over major breaks (Thanksgiving, Christmas, winter, and Easter breaks). For example, for Winter Break, the last day to assign homework is Wednesday.

Also, no major projects or tests should be due the day upon returning to school. The first day that a major project or test can be due is the Friday following break.

Teachers must give students a one-week notification before administering a test





# Challenges

- Published homework policy in the HS is not sustainable: 30 minutes for each college preparatory class session, 45 minutes for mathematics classes, and 1 hour for each honors/AP class session
- Reading and homework policies are so different between the campuses is what makes it difficult between the two divisions – big jump from Elementary to JH and from JH to HS

# Amount of Homework VCS Students

## High School

“Regular” homework night:

- Average of 1.0 hour (range of 30 minutes to 2 hours)

“Heavy” homework night:

Average of 2.6 hours (range of 1 to 3.5 hours)

## Junior High School

“Regular” homework night:

- Average of 1.2 hours (range of 30 minutes to 2.0 hours)

“Heavy” homework night:

- Average of 2.0 hours (range of 1.0-3.0 hours)

Frequency of heavy homework night

- 2-4 times a week in High School
- 1-2 times per week in Junior High School



# Recommendations





# Recommendations

- Use a portion of a period at the beginning of the school year to determine the length of the homework assignment
- Create sustainable homework policies with no more than 2 hours in HS and 1.5 hour for MS (follow the rule of 10 for homework in the Middle School)
- Require all homework to be posted by teachers by 3:00 pm
- Promote the consistent application of an empathetic approach to homework when there are late night activities (such as tech week for the production)
- Do not start class by going over homework



# Cooper

Don't individualize homework assignments for students – it causes too much work for teachers with too little return on investment in learning.



- If homework is independent practice (rather than a preview), make sure there was time for guided practice in class first
- Have students start homework in class
  - Let's you see if it's an appropriate level of challenge for all students
  - Let's you see how quickly students can complete the task
- Explain the why behind the what
- Use homework for things that can't be completed in class
- Check how long it takes students to complete work
- Grade homework for practice, not mastery



# LET'S CRITIQUE





# Summary

☆“Understand the four types of homework. Know when and why to have students practice: ☆

1. Memorization of basic rules, algorithms, or laws so the skill becomes rote.
2. Increase in skill speed, used for improving students' abilities to apply these skills in more complex problem solving. ☆
3. Deepening understanding of a concept—providing students time to read further, elaborating on a new idea and expanding their understanding.
4. Preparation for the following day's learning, such as an advance organizer or cue to increase readiness for new information.” (Northwestern Regional Educational Laboratory) ☆



# ☆ Qualities of good homework ☆

- Students can do it on their own
- Directly relates to a learning objective
- Students know why it's important
- Developmentally appropriate time limits
  - Students don't know how to deal with a teacher telling them to only do 20 minutes – added stress ☆
- Authentic
- Connects to big idea
- Clear directions
- Allows for student voice and choice to increase engagement (Pick one problem from each group, etc.) ☆