## Homework

The book Classroom Instruction that Works: Research-Based Strategies for Increasing Student Achievement by Robert Marzano, Debra Pickering and Jane Pollock identifies the nine instructional strategies that have a high probability of enhancing student achievement for students at all grade levels. Those strategies, in order of effectiveness, are the following:

1. Identifying similarities and differences
2. Summarizing and note taking
3. Reinforcing effort and providing recognition
4. Homework and practice
5. Non-linguistic representations
6. Cooperative learning
7. Setting objectives and providing feedback
8. Generating and testing hypotheses
9. Questions, cues and advance organizers


As homework is one of the strategies proven effective in improving student achievement at certain grade levels, it is important to look at the recommendations of the research study as the findings, in many cases, differ from educators' perception of the role of homework in increasing student achievement in K-12.

The research study cites four generalizations that can guide teachers in the use of homework:

1. The amount of homework assigned to students should be different from elementary to middle to high school. According to the study, homework in high school produces a gain of about 24 percentile points, homework in the middle grades produces a gain of only 12 percentile points, and homework in the elementary grades has a strikingly small effect size of only six points. Despite the lack of effect size in elementary school, the book recommends that homework should be given, not because schools expect it to increase student achievement but rather because it helps younger students develop good study habits and communicates that learning takes place at home as well as at school. The following timeframe is recommended by Instructional Services for the total amount of homework per level: 10 minutes per grade level $-1^{\text {st }}$ grade, a total of 10 minutes, $2^{\text {nd }}$ grade, a total of 20 minutes, $7^{\text {th }}$ grade a total of 70 minutes, etc. Homework should have a specific purpose and connection to the topic(s) being studied and should be assigned only when necessary to provide practice or rehearsal or to prepare or elaborate/extend.
2. Parent involvement in homework should be kept to a minimum.
3. The purpose of homework should be clearly identified and articulated by the teacher to the student. Best practice includes two common purposes for homework (1) practice/rehearsal (2) preparation or elaboration/extension. When homework is assigned for the purpose of practice/rehearsal, it should be based on material with which the students
 are very familiar. When homework is assigned to help prepare students for new content, the teacher should carefully explain the purpose for the homework and make connections for the student.
4. If homework is assigned, it should be commented on. Providing feedback on homework serves to enhance student achievement. Research shows that when secondary teachers comment in writing on homework, there is a gain of the most percentile points; when homework is checked by the teacher, there is gain of almost the same number of percentile points; when homework is assigned but not checked or commented on, there is a minimal gain of percentile points.
