

Homework for primary school students



School resources

Homework is defined as tasks assigned to students by school teachers that are intended to be carried out during non-school hours¹. Homework is a unique educational practice as it is the only learning strategy that crosses the boundary between the school and the home. Much virtue has been attributed to the practice of homework that has not been borne out by research. Both teachers and parents have strong feelings, both positive and negative, about the value of homework, and parents and teachers alike still confuse homework load with rigour, and compliance with responsibility. To further complicate matters, most teachers have never been trained in the effective use of homework, so tend to rely on the traditional types of tasks they experienced as students.

In recent years, the practice of homework has come under critical review, with public attitudes around the globe changing, and with the following international trends emerging:

- Eliminating homework in the first 2-3 years of primary school.
- Limiting homework to reading only in the first 6 years of primary school.
- Eliminating weekend or holiday homework at all levels.

Many of these changes in policy have occurred at the school or district level, but some countries have instituted these changes through government mandate.

Homework and families

The diversity of families makes the practice of homework even more complicated. Parents within the same community may differ in their beliefs about the place of academic work in life. Some parents prioritise academics (wanting more homework), others want a balance of academics and chosen activities, and others prioritise leisure and happiness (wanting less or no homework). There is also a growing parent activism around the world, driven by the role homework plays in children's stress levels and an awareness of the need for balance in work, play, downtime and sleep. Parents are speaking out with concerns about 'academic stress' and work/life balance for students and, as a result, are demanding more control over their child's free time. Parents are also pushing back against using extra homework as punishment for misbehaviour in the classroom and practices that punish students for not completing homework.

There are also concerns about homework as an equity issue. Economic differences can entrench privilege as children from wealthier families enjoy ready access to technology, tutors, and educated parents, while children of poverty may lack access to technology, materials, and favourable working conditions. A study by the OECD² of students from 38 different countries showed that students from higher social classes did more homework than students from lower social classes. More affluent parents are also more likely to help with homework than less affluent parents, and families living in poverty often need to prioritise family responsibilities and paid work over homework.

In an effort to address the widening economic diversity of families and to accommodate different parental preferences, some traditional homework practices, such as punishing students for incomplete homework or for a parent's failure to sign homework, assigning extra homework to students as

punishment for classroom misbehaviour, and including homework as a prerequisite for grade or year completion, are being discontinued in primary schools. Other homework practices are gaining popularity in primary schools, such as:

- Allowing flexibility in when homework is due, moving away from daily homework to homework that may be turned in over several days.
- Differentiating homework for parents—providing additional resources for parents who desire additional work for their child (challenge packets, lists of websites) and allowing other parents to 'opt out' of homework, or to choose to limit the amount of time their child spends on homework.
- Providing more time during the school day or after school for students to complete homework at school. Some schools, especially those in high poverty communities, are extending the school day, so that all homework is completed at school.

The research on homework

The results of research about the benefit of homework to academic achievement are mixed, inconclusive, and sometimes contradictory. These results are not surprising given that homework involves the complex interaction of a number of factors, such as differences in children, teachers, tasks, home environments, measurements of learning, and the unique interaction between homework and classroom learning within individual students³. The pervasive flaw of the early homework research was that it focused almost exclusively on the correlation between time and achievement, with no consideration of the type or quality of the homework task. That research failed to show that homework improves the academic performance of primary school students, and revealed that, up to a point, the correlation of homework time and achievement appeared positive, but past the optimum amount of time, achievement either remained flat or declined⁴.

What was the optimum amount of time spent on homework? Curiously, the appropriate amount of homework for different year levels was consistent with a longstanding guideline called the 10-minute rule (origin unknown). The 10-minute rule is a guideline many schools follow that homework should not exceed 10 minutes per year level per night, all subjects combined. That is, a student in year one should be expected to complete no more than 10 minutes per night, while a student in year six should be expected to complete no more than 60 minutes per night⁵. Interestingly, there is no recommendation for any amount of new entrants' homework by any educational group.

However, while the 10-minute rule may be helpful as an upper limit, it fails to take into account the quality of the task and differences in students' working speeds. It is important to remember that correlation of time and achievement is not causation: it is impossible to show that homework causes higher achievement. Correlating time and achievement also ignores many any other variables that may affect achievement. After controlling for motivation, ability, quality of instruction, course work quantity, and some background variables, no meaningful effect of homework on achievement remained⁶.

Due to such discrepancies and other flaws in homework studies, researchers disagree as to whether or not homework enhances achievement. While many hold strongly to their assertion that homework is beneficial, others point to newer studies that seem to discount early research. A new generation of homework studies using more sophisticated analyses and controlling for more variables often fail to find a significant relationship between homework time and achievement, especially with primary students⁷.

Teachers should view the research through the lens of what they intuitively know about their students and apply the same principles of effective teaching and learning to homework that they would apply to the classroom. Teachers know that organisation and structure of learning matters, that feedback

about learning is critical, that the quality of a learning task matters, and that student differences in developmental levels, learning preferences and persistence must be considered. Achievement is related not to the amount of homework or the time spent on it, but to the quality of the homework task, the student's perception of the value of the task, and how interesting the task appears. In other words, task quality is what really matters.

Purposes of homework

If homework is given, it should be purposeful and meaningful, not just given for the sake of assigning homework. Before designing a homework task, teachers must first determine the purpose of the task. This may include pre-learning, diagnosis, checking for understanding, practice, or processing. Homework should not be used for new learning.

- **Pre-learning:** traditional preparation homework, such as reading or outlining a chapter before a discussion, was often used as background for a more in-depth lesson. A more engaging use of pre-learning would be to discover what students already know about a topic or what they are interested in learning about (such as asking them to write down questions they have about the digestive system). The most valuable use of pre-learning homework may be to stimulate interest in a concept (such as listing eye colour and hair colour of relatives for a genetics lesson).
- **Diagnosis:** how do we design learning if we don't know where students are? Diagnostic homework may include pre-tests, a checklist of 'I can' statements, or a practice test to assess prerequisite skills. Diagnostic homework saves time—once teachers know where students are in their skills or knowledge, they can plan instruction more efficiently.
- **Checking for understanding:** this is probably the most neglected use of homework, yet it is the most valuable way for teachers to gain insight into student learning. For instance, journal questions about a science experiment may ask the student to explain what happened and why. Asking students to identify literary devices in a short story shows the teacher whether the student understands literary devices. Asking students to do a few sample problems in math and to explain the steps lets the teacher know if the student understands how to do the problem.
- **Practice:** the traditional use of homework has been for the practice of rote skills, such as multiplication tables, or things that need to be memorised, such as spelling words. Although practice is necessary for many rote skills, there are three mistakes that teachers sometimes make with the use of practice homework. First, teachers may believe they are giving practice homework when, in fact, the student did not understand the concept or skill in class. The homework then actually involves new learning and is often quite frustrating. Second, if teachers skip the step of checking for understanding, students may be practising something incorrectly and internalising misconceptions. For instance, students should practise math operations only after the teacher has adequately checked for understanding. Third, [distributed practice](#) is better than mass practice—that is, practice is more effective when distributed over several days. A smart practice for math is two-tiered homework: Part One is three problems to check for understanding of a new skill, and Part Two is 10 problems to practise a skill previously learned.
- **Processing.** Processing homework asks students to do something new with concepts or skills they have learned - to apply skills, reflect on concepts that were discussed in class, think of new questions to ask, or synthesise information. Processing homework may be a single task such as applying maths skills to a new word problem, or a long-term project such as demonstrating writing skills in an original essay or creating a schematic to show the relationship between major concepts in a unit.

Designing quality homework tasks

Creating quality homework tasks requires attention to four aspects:

- **Academic purpose**—Tasks should communicate a clear academic purpose.
 - **Efficiency**—Tasks should help students reach the learning goal without wasting time or energy.
 - **Competence**—Tasks should have a positive effect on a student’s sense of competence. Homework tasks should be designed so that even young students can complete the task without adult help.
 - **Ownership**—Tasks should be personally relevant and customised to promote ownership⁸.
- **Academic purpose:** all homework should clearly state the learning goal for the assignment. Sometimes homework tasks are well-intentioned attempts to have students do something fun or interesting, but the academic focus is not apparent (for instance, what exactly is the learning purpose of a word search?). Writing out definitions of vocabulary words or colouring in a map may sound like good homework, but one might question whether those tasks are appropriate to a focus on higher level thinking. Best practice suggests that students shouldn’t just write spelling words - they should use them to write declarative essays. They shouldn’t merely define the parts of the cell - they should create an analogy for the cell parts and functions. They shouldn’t just complete 20 identical math problems - they should apply math skills to new problems. Instead of reading logs which simply ask students (or parents) to document that they spent time reading, a better task would be to have the student write a reading blog to talk about what they have been reading.
- **Efficiency:** some traditional tasks may be inefficient—either because they show no evidence of learning or because they take an inordinate amount of time. Projects that require non-academic skills (like cutting, gluing, or drawing) are often inefficient. Classic projects like dioramas, models, and poster displays are created by teachers with all the best intentions - they see them as a fun, creative way for students to show what they have learned. But unless content requirements are clearly spelled out in a rubric, projects can reveal very little about the student’s content knowledge and much more about their artistic talents.
- **Competence:** an important objective of primary homework is to ensure that students feel positive about learning and develop an identity as successful learners. Homework tasks should be designed not only to support classroom learning but also to instill a sense of competence in the learner. In fact, when students feel unsuccessful in approaching homework tasks, they often avoid the tasks completely as a way to protect their self-esteem. Teachers should adjust homework difficulty or the amount of work based on their assessment of the student’s skill level or understanding. Struggling learners may need simpler reading material or tasks that are more concrete or more scaffolded. For students who work more slowly, the remedy should be to give the student less work rather than expecting them to work longer than other students. A simple differentiation for struggling learners is to make homework **time-based** (‘spend 20 minutes on this task, draw a line’) rather than **task-based** (finish the task regardless how long it takes). Just as checking for understanding is an important purpose for homework, teachers also need to check for frustration. Teachers should solicit feedback from students, finding out how students feel about approaching certain tasks and how they feel after they’ve attempted those tasks.
- **Ownership.** Another important objective of homework is independent learning, but often homework is not structured with enough agency to allow for that independence. Perhaps that is because teachers believe the tasks they prescribe will naturally lead to the learning they desire for all students. But one-size-fits-all-homework rarely fits all. When we give students more ownership of the homework task, we make it more efficient and students are more motivated. Choice is at

the heart of that student ownership. Homework choice can be as limited as 'pick any 10 of the 30 problems', as specific as having students work only on learning goals that they are struggling with, or as wide open as a self-selected and self-designed project. Students may not always have a choice about the learning goal, but they can almost always be given some agency in designing the best task for them to reach the goal. For instance, suppose the learning goal is for all students to memorise their multiplication tables. The homework might look like this:

1. Create your own method to memorise your multiplication tables. Here are some ideas other students have tried - writing, reciting, making note cards, drawing a colour-coded chart, or creating a song.
2. Share your idea with the class tomorrow.
3. Practise your method this week.
4. Evaluate how well your method worked after the quiz on Friday.

It may be helpful to think of the amount of ownership students are allowed in homework as a continuum from traditional to differentiated to personalised. Traditional homework is designed by teachers with no student input - prescribed tasks such as practice math problems or assigned reading in their science book. As we give students more ownership, we may give choices or we may differentiate. For instance, all students need to read, but they may be given choices of what they read. Students may need to practise subtraction, but they may create their own problems based on items in their home.

For the ultimate ownership, we may allow students to pursue personalised homework. Personalised homework involves students in goal setting (typically based on academic standards), planning a specific homework task, and planning how they will demonstrate learning. The personalised homework most familiar to teachers is probably genius hour (also called passion projects), which involves giving students a block of time to learn more about something that they are curious about, or that excites or inspires them. These long-term research projects often start in the classroom, with students transitioning to working on them as homework, bringing them back periodically for feedback, and eventually presenting their results to an audience.

What makes sense for many teachers is a balance of traditional homework, differentiated homework, and personalised homework over the course of a term or year. Often, some personalised homework will be blended into day-to-day learning in tandem with other more teacher-directed assignments. Many teachers reserve personalised homework for times when student motivation wanes, such as before the holidays or near the end of the school year.

Should homework be graded?

Research has shown the effect of feedback to be more powerful than many other factors that influence learning⁹. As more primary schools focus on mastery learning, homework is increasingly viewed as formative feedback. The current consensus among researchers is that homework's role should be as formative assessment—assessment **for** learning that takes place during learning¹⁰. Homework's role is not assessment **of** learning - therefore, it should not be graded. Ideally, homework is given feedback, monitored for completion, and reported separately as a work habit.

Homework is just one part of an overall instructional plan. As our curricula, teaching strategies, and assessment strategies evolve to better meet student needs, so should our homework practices. Only

by creating assignments that are effective and equitable can we make homework a valuable part of instruction and learning.

Endnotes

¹ Cooper, H. (2007). *The battle over homework: Common ground for administrators, teachers, and parents*. (3rd edition). Thousand Oaks, CA: Corwin Press.

² Organization for Economic Cooperation and Development (2014). *Does homework perpetuate inequalities in education?* www.oecd.org/pisa/pisa-2015-results-in-focus.pdf. Retrieved 8-4-17.

³ Horsley, M. and Walker, R. (2013). *Reforming homework: practices, learning and policy*. Melbourne, Victoria, Australia: Palgrave Macmillan.

⁴ Cooper, H. (2007). *The battle over homework: Common ground for administrators, teachers, and parents*. (3rd edition). Thousand Oaks, CA: Corwin Press.

⁵ Vatterott, C. (2018). *Rethinking homework: Best practices that support diverse needs*, 2nd edition. Alexandria, VA: Association for Supervision and Curriculum Development (ASCD).

⁶ Trautwein, U., & Koller, O. (2003). The relationship between homework and achievement—still much of a mystery. *Educational Psychology Review*, 15(2), 115–145.

⁷ Vatterott, C. (2018). *Rethinking homework: Best practices that support diverse needs*, 2nd edition. Alexandria, VA: Association for Supervision and Curriculum Development (ASCD).

⁸ Vatterott, C. (2010). Five hallmarks of good homework. *Educational Leadership*, 68(1), 10-15.

⁹ Hattie, J. (2009). *Visible learning*. London: Routledge.

¹⁰ Vatterott, C. (2018). *Rethinking homework: Best practices that support diverse needs*, 2nd edition. Alexandria, VA: Association for Supervision and Curriculum Development (ASCD).

PREPARED FOR THE EDUCATION HUB BY



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