

HOMEWORK:

What are the upsides and downsides?

Towards a more effective policy and practice in Australian school communities

A preliminary discussion paper

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By

Naomi Alanne, Rupert Macgregor

Revised, expanded & updated 2009 by

Isabelle Macgregor

Introduction

Throughout the last few decades, the issues surrounding homework have been a subject of lively debate and discussion. Views are expressed from opposing ends of a spectrum and from all points in between.

Advocates of homework believe that it is vital in preparing and equipping children for the rigours of a competitive world. Many teachers give homework because the overcrowded school curriculum is otherwise unmanageable in school hours. Opponents of school homework often claim that that extra time should be used for involvement in extra-curricular activities to broaden children's horizons and enrich their lives. They believe that the school curriculum should not spill over into "family time" or come to dominate children's lives in ways that may contribute to exhaustion or anxiety.

Homework has been the focus of considerable research particularly in the UK and the USA. This paper will seek to review relevant aspects of the research, explore the issues which it raises and seek to indicate how it may help us to devise and implement an effective policy and practice in Australian schools.

What is "Homework"?

Homework can be very broadly described as "tasks assigned to students by school teachers that are intended to be carried out during non-school hours" (Cooper 2007:4). This includes both the completion of work not finished in class, and set work for children to complete after school.

A more complex definition which attempts to be universally encompassing, describes homework as "the time students spend outside the classroom in assigned activities to practice, reinforce or apply newly-acquired skills and knowledge and to learn necessary skills of independent study" (Butler, 1987). This description also seeks to establish boundaries which exclude from consideration such things as: home study courses, guided in-school study and extra-curricular activities generally.

The Purpose of Homework

Noting that the dynamics of homework appear to vary at different levels of schooling, and that the body of research focuses more on the situation in the years of secondary schooling, Epstein observes that "homework is considered one of the most important practices for establishing a successful academic environment in high school". She notes a 1982 study which "concluded that homework and discipline were two features of private schools that made them more successful learning environments than public schools". Many, therefore, believe that the obvious implication of this conclusion "is that if public schools assigned more homework, their students would learn more and the schools would be more effective" (Epstein 2001:236).

This deduction may be too simplistic. As Epstein points out, "The notion that more is better may not be true for all students, in all subjects, at all skill levels, and at all grade levels. Indeed, if more homework is assigned than can be completed, or if inappropriate homework is assigned, then home assignments may be counter-productive for student achievement." (Epstein 2001:236)

When a teacher assigns homework, the stated or unstated purpose of setting it can vary greatly. Homework may be given to provide students extra time to practice what has been learnt in class, to monitor a student's progress or even as punishment for poor behaviour in class.

Through a review of the literature, Epstein has developed a ten-point typology of the reasons that homework is assigned to students. She categorises these as *The Ten Ps*:

- **Practice** – Homework can enable students to practice skills learnt in class, increase the ease with which these skills can be used; and increase their understanding of how and when to use those skills.
- **Preparation** – Homework can ensure student readiness for the next class, most commonly by completing assignments or activities which have been started in class and need to be completed as the basis to move on in the next activity.
- **Participation** – Homework can increase the individual participation of students in the learning process: in class some students may seem to be involved but may in fact be passive onlookers to the process. Homework can require each individual to participate actively and continually, to work through the process for themselves, and to take control of their learning and thinking.
- **Personal Development** – Homework can help students to take personal responsibility for their schoolwork. It can enable them to build their range and competency levels of study skills, their ability to follow directions and their ability to complete tasks on time. It can produce a feeling of self-confidence and personal accomplishment. Homework can also create opportunities for the development of talents and skills through the provision of extension and enrichment activities.
- **Peer Interactions** – Homework can be designed to encourage collaborative learning on assignments or projects, enhancing students' teamwork skills and opportunities to learn from each other or to combine their talents for mutual benefit.
- **Parent-Child Relations** – Homework can provide an opportunity for students and parents to develop positive communication on the topic of the importance of learning. It can facilitate an exchange information, facts, attitudes and expectations about school. It can demonstrate how aspects of schoolwork apply to real-life situations, as well as encouraging positive feedback from the parents.
- **Parent-Teacher Communications** – Homework also allows teachers to communicate with parents, to involve them in the learning process and inform them as to what and how the students are learning and how their skills are progressing.
- **Public Relations** – Homework can sometimes be motivated by the felt or assumed need of the school or the teacher to demonstrate to the families of their community that the school has rigorous standards for serious work. Such extra work is assigned to fulfill the public's expectation of high student achievement.
- **Policy** – Homework may be assigned to comply with district or school policy that directs a certain amount to be given to all students on certain days.
- **Punishment** – Homework can be given to students to punish them for lack of attention or poor behaviour. It may include writing "lines" or essays on appropriate behaviour or school standards. Although there have been no studies on this topic, punishment is generally seen as inappropriate as a purpose for homework. It serves merely as an exercise of teachers' power to use up students time, with a negative focus on behaviour rather than learning (Epstein 2001:237-241).

- **The Benefits of Homework**

The benefits of school homework have been expounded by numerous researchers throughout the last few decades. Research undertaken in the USA and the UK suggests that homework can have immediate benefits for children such as improving their grades, performance at school, and attitude towards learning, as well as long lasting benefits such as time management and problem solving skills that can assist them not only in their tertiary study but also later in life.

Two major studies conducted many years apart both identified beneficial outcomes.

A 1979 US study found that "the assignment of homework by teachers and completion by students were positively associated with student academic performance and school behaviour" (Rutter, Maughan, Mortimore and Ouston 1979).

A 2001 review of literature on homework in the UK suggests that there is "a positive relationship between time spent on homework and achievement...", although this was only found true for secondary school students, as evidence was inconclusive for primary school children, and that those children with a positive attitude towards homework were more likely to have a positive attitude towards school (Sharp, Keys and Benefield 2001).

Over the years, many other researchers have pointed out the positive effects of homework.

In his 1987 book, *Homework*, Butler claims that "schools in which homework is routinely assigned and graded tend to have higher achieving students" and that homework given regularly to students can improve their attitude towards learning. Butler believes that homework can contribute to students' progress in school by teaching them independent study skills, increasing their accountability as an individual and giving them a sense of personal responsibility. The existence of homework also appears to help the student and their parents understand that the school holds high expectations of its students. According to Butler, it is believed that homework provides additional practice by creating more time for students to be engaged in learning outside school hours. Teachers often use homework to monitor a student's progress and, in this way, can quickly identify any learning problems. It can also enable teachers to move quickly through the curriculum, introduce new material to their class sooner and enrich the curriculum by giving students a wider range of learning opportunities in the subject (Butler 1987).

In his study, *Homework Research and Policy: A Review of the Literature*, Cooper found that benefits from homework can include immediate achievement and learning, involving "better retention of factual knowledge, increased understanding, better critical thinking, concept formations, information processing and curriculum enrichment." It can also provide long term academic benefits such as an enjoyment of learning in leisure time, an improved attitude towards school and better study habits and skills, as well as nonacademic benefits including greater "self direction, self discipline, time organization, inquisitiveness, independent problem solving and parental appreciation of and involvement in schooling" (Cooper 1994).

Research conducted by Cooper, Lindsay, Greathouse & Nye found that "the more homework students complete, especially from grades six to twelve, the better they do in school" (American Psychological Association 1998).

In his book, *The Battle Over Homework*, Cooper states that, "in experimental studies, the average student doing homework had a higher unit test score than 73 per cent of students not doing homework" (2007: 19).

Homework may also have a positive effect on home life. According to Cowan and Hallam, parents believe that homework informs them of the curriculum and provides them with an opportunity for increased involvement in their child's life. They also see it as increasing communication between themselves and the school (1999).

Writing for the Harvard Family Research Project, Walter et al. also claim that homework is often a vital means through which parents become involved in their child's education (2004). If parents are involved in the homework process, the work can be used to "increase parents' appreciation of and involvement in schooling". In this way, children also become more aware of the connection between home and school and parents are able to demonstrate an interest in the academic progress of their children (Cooper 2007:10).

The benefits of homework can be grouped into four broad categories:

- immediate academic effects;
- long-term academic effects;
- non-academic effects; and
- parental involvement.

The most frequent rationale for assigning homework is that of the immediate academic effect. Some argue that this occurs because it increases the time students spend on academic tasks (Cooper 2007:8).

The positive effects of homework which relate to immediate achievement and learning include:

- better retention of factual knowledge;
- increased understanding;
- better critical-thinking, concept formation and information processing skills;
- a desire to learn during leisure time;
- a better attitude toward school;
- better study habits and skills; and
- curriculum enrichment (Kralovec and Buell 2000:26, Cooper 2007:10).

The non-academic effects of homework include:

- greater self-discipline;
- greater self-direction;
- better time organisation;
- more inquisitiveness; and
- more independent problem solving (Kralovec and Buell 2000:26, Cooper 2007:10).

The Negative Effects of Homework

Although homework can be found to have a positive effect on a student's performance in school as well as later in life, there are also negative aspects of this practice. Many of these negative effects directly contradict the positive effects suggested above.

Homework has been found to contribute to physical and emotional exhaustion and allows little or no time to spend on leisure and family activities. Some of the negative effects of homework found by Cooper include "loss of interest in academic material, physical and emotional fatigue, denial of access to leisure time and community activities, parental interference, pressure to complete and perform well, and confusion of instructional techniques" (1994). Some believe that homework may negatively influence a child's attitude towards school. This is because there is a limited time in which activities remain rewarding. By spending too much time on school learning, a child can become over-exposed to academic tasks. This can damage a positive attitude or motivation to achieve (Cooper 2007:11).

According to Sharp, correlations between time spent on homework and achievement should not be taken as evidence that more time on homework necessarily leads to better achievement. Time spent on homework explains only a small amount of the variance in pupils' achievement scores, even at secondary level (2001). As suggested by Epstein, the idea that more homework is better "may not be true for all students, in all subjects, at all skill levels and at all grade levels" (2001:237).

In his article *The Truth About Homework*, Kohn claims that homework has many negative effects including frustration, stress, loss of time for other activities, family conflict and a reduction of interest in learning. His research revealed that "decades of investigation have failed to turn up any evidence that homework is beneficial for students in elementary [primary] school" and that the only identifiable effects of homework are "more negative attitudes on the part of students who get more assignments." He states that the idea that homework creates long-term non-academic benefits for children, for example teaching good work habits or developing traits such as self discipline and independence, can be described as an urban myth as there is no hard evidence to support these beliefs (2006).

Kohn notes that, for high schools, "some studies do find a correlation between homework and test scores or grades, but it's usually fairly small and it has a tendency to disappear when more sophisticated statistical controls are applied. Moreover, there's no evidence that higher achievement is *due* to the homework even when there is an association."

Further, he notes that analyses of national and international exam results raise further doubts about such a causal link. He comments that among many examples, the Baker and Letendre *Trends in Mathematics and Science Study* (1994 and 1999) data from 50 countries found that "the overall correlations between national average student achievement and national averages in amount of homework assigned, are all *negative*" (Kohn 2006). In the countries with the highest scoring students in achievement tests, such as Japan, Denmark and the Czech Republic, students are assigned relatively little homework. In countries where students have some of the worst average scores, such as Greece, Thailand and Iran, teachers assign high quantities of homework (Bennett and Kalish 2006: 12).

Some of the supposedly beneficial aspects of homework have never been tested. Many educators claim that homework teaches children responsibility and self-discipline and encourages self-motivation. This has not been proven and so can be described as a "value judgement". No researcher has ever studied whether or not some other factor – such as independent reading or a rich home life, for example – improves test scores (Bennett and Kalish 2006: 13).

Excessive homework can mean that there is no time for family activities and family meals. It can also impinge on time spent socialising with friends (Bennett and Kalish 2006:24). Opponents of homework often claim that it serves to deny a student access to leisure time and community activities. This is significant because homework is not the only way for a child to learn out of school hours and many leisure activities "teach important academic and life skills" (Cooper 2007: 11).

The intense pressure to complete homework can lead to students cheating by copying from other students or getting their parents to complete the work for them – practices which could instill a negative long-term work ethic, such as a habit of relying too much on others (The American Psychological Association 1998, Cooper 2007:11). The American Psychological Association has found that students who "perceive that achievement is defined by schools and teachers in terms of grades and performance, worry about school, and believe they can get rewards for doing well in class such as getting out of homework" are more likely to cheat, and to "avoid using deep level cognitive processing strategies such as trying different ways to solve a problem" (1998).

Homework can damage home life. Involving parents through homework can have a negative impact on the schooling process. Parents can sometimes place intense pressure on children to complete homework assignments with unrealistic speed or rigour. Confusion can be created if parents are unfamiliar with the homework material or their approach to learning differs from that of the school (Cooper 2007:11).

In families with multiple children, a parent's time is often dominated by the older child's greater homework load. The younger children can be neglected and resort to negative behaviour in order to gain attention. When a lot of attention is given to the younger child, the older child can feel frustrated or desperate because they are not receiving adequate help with their large work-load. Homework can, therefore, also cause resentment between siblings and isolate them from one another (Bennett and Kalish 2006:25).

Homework may also reinforce differences between students of different socio-economic backgrounds. Some suggest that those from wealthier families will have greater parental support and assistance for homework. These students may also be more likely to have study areas conducive to productivity and better study resources (Cooper 2007:12).

Kralovec and Buell list clearly the negative effects of homework on achievement and learning.

- Satiation:
 - o loss of interest in academic material; and
 - o physical and emotional fatigue.
- Denial of access to leisure time and community activities
- Parental interference:
 - o pressure to complete and perform well; and
 - o confusion of instructional techniques.
- Cheating:
 - o copying from other students;
 - o help beyond tutoring; and
- Increased differences between high and low achievers (2000:26-27).

According to Kohn, "there is no reason to think that most students would be at any sort of disadvantage if homework were sharply reduced or even eliminated". He observes that the evident trend in schools is, however, to increase homework, with more primary school children now being engaged for increasing periods of time in assigned homework activities.

Kohn also notes that:

'Carole Ames of Michigan State University points out that it isn't "quantitative changes in behaviour", such as requiring students to spend more hours on books and worksheets, that help children's learning. Rather, it is "qualitative changes in the ways students view themselves in relation to the task, engage in the process of learning, and then respond to the learning activities and situation." In turn, these attitudes and responses emerge from the ways teachers think about learning and, as a result, how they organise their classrooms. Assigning homework is unlikely to have a positive effect on any of these variables. We might say that education is less about how much the teacher covers than about what students can be helped to **discover** – and more time won't help to bring about that shift' (Kohn 2006).

Three Focus Questions

It may be useful to analyse this research within the framework of three broad questions.

To what extent does research indicate or suggest that homework achieves each of the ten stated purposes outlined by Epstein?

The research on the value of homework for *any* purpose is, at best, indecisive.

It appears that homework can be ineffective if it is not appropriately and consistently designed, structured and assessed. Teachers should assign homework at a level which matches students' skills and provide instructions which will have positive consequences for homework completion. A survey of teachers of students with learning disabilities found that 80 percent of teachers regularly assigned homework but few matched the tasks to student skills or provided feedback or positive consequences for homework performed. Homework in which the teacher has embedded instructive comments – "formative assessment" – has the greatest effect on learning. Too often, that opportunity is ignored or lost (NREL 2005).

For homework to be in any way productive, it is essential that all parties to the process – teachers, students and parents – have a clear and shared understanding as to "why homework is assigned, whether it is appropriate in quantity and quality, and how it is structured to fit into teaching and reteaching skills in the classroom." Where purpose and process are not aligned, then it seems likely that the possible benefits will be significantly reduced, negated or counter-productive. If, for example, the purpose is participation and/or personal development and the work is not reviewed and feedback provided, a major opportunity is lost for confirmation of learning and formative assessment. It is then likely that homework will be resented as a pointless imposition for the sake of keeping students busy (NREL 2005).

As Cooper points out, the issue is not black-and-white. The positive and negative aspects of homework can often occur simultaneously. For example, "homework can improve study habits at the same time that it denies access to other leisure-time activities. Some types of assignments can produce positive effects, while other assignments produce negative ones" (Cooper 2007:12). Results may also vary widely depending on the quality of teaching, the size and circumstances of the child's family background and the personal interests of the child.

In light of this, Cooper believes that "complex patterns ought to be expected". The challenge is to increase the positive aspects while minimising those which are negative (2007:12).

To what extent does each purpose apply to students of different levels – early primary, latter primary and high school – and to what extent are they achieved in respect of that group?

As noted above, the research is at best ambivalent regarding homework quantity, quality and purpose and the extent to which it results in appropriate benefits during primary school years. While Butler recommends that traditional homework assignments are not effective in the early school years and so "should be given sparingly, possibly not at all in primary grades" (1987), other research suggests that this cannot be assumed. A study by Sharp, Keys & Benefield indicates that a positive relationship between homework and achievement is only shown in secondary students, and that evidence at the primary level is inconclusive and results are inconsistent (2001).

In regards to middle and high school years, a review of research on homework in the UK suggested that there is a positive relationship between the amount of homework completed and a student's achievement in school (Sharp, Keys and Benefield 2001). According to Cooper, while the correlation between time spent on homework and achievement is low for primary school students, it is "substantial" for secondary school students (2007:30).

This view is held by a number of researchers, many claiming that not only is homework beneficial for students in middle and high school years but that it also has long lasting benefits that can assist them later in life.

Although most studies find a correlation between homework and achievement in school, this is usually quite small, and can sometimes disappear if more complex controls are applied to given statistics. Some researchers strongly believe that any benefits can also be achieved through effective teaching, structured in-class activities and family communication and engagement.

To what extent does homework contribute to family-school communication, family engagement and the formation of effective and sustainable family-school partnerships?

The impact of homework on family-school interaction is still uncertain. According to Walker et al., homework can provide a powerful tool for "(a) letting parents and other adults know what the child is learning, (b) giving children and parents a reason to talk about what's going on at school, and (c) giving teachers an opportunity to hear from parents about children's learning" (2004).

It appears, however, that the results will be negative if parents are unclear as to how they should be involved. In her 2001 study, Epstein highlights several areas of tension:

- Parents often feel in need of more information from teachers as to how they can usefully assist their children.
- Many parents are unhappy with the current situation – some 10 per cent felt homework was mainly to "keep the students busy", 10 per cent had concerns about the appropriate level of difficulty and 25 per cent had doubts about the amount being appropriate.
- In terms of student attitudes, 20 per cent of primary school students do not like to talk about school with their parents and 35 per cent say they are "tense" when working with their parents on homework. These attitudes, however, may be early warning signs of more serious learning problems and can or should serve to encourage parents to talk with teachers about how to help their children build confidence and positive attitudes towards school and learning.
- Homework can be a source of anxiety for children and parents where there is lack of access to appropriate or necessary learning resources or facilities in the home. This may indicate a need for guidance on how to help. It may also be a consequence of a family's low socio-economic circumstances.
- Significant numbers of parents with secondary school-age children stop monitoring their child's homework and are no longer positively and supportively involved in the process. This is most common when the parents are not given information about homework policies and practices or how to work with their adolescent children (2001:243-252).

The Harvard Family Research Project lists the various ways in which parents can become involved in their children's homework. They can:

- interact with the child's school or teacher about homework;
- establish physical and psychological structures for the child's homework performances;
- provide general supervision of the homework process;
- respond to the child's homework performance;
- engage in homework processes and tasks with the child;
- provide management and instruction to ensure that tasks match the knowledge, skills and ability of the child; and
- establish strategies which help the child to adopt study habits and attitudes which are conducive to achievement (Walker et al. 2004).

The Harvard Family Research Project also suggests a number of ways in which teachers can encourage parents' involvement in homework. These include:

- talking to parents about mutual goals for the child's education and the ways in which homework supports these goals;
- encouraging parents to give their opinion on homework assignments and feedback on their child's progress;
- suggesting alternative homework routines, including the organisation of homework space;
- explain to parents what homework monitoring involves and why it is important;
- offer specific examples of how parents can best support homework performance, in accordance with broader learning goals of the homework assignments;
- suggesting when direct input from the parents is useful and how this is to be done (for example, when the homework involves practice or memorisation);
- offering suggestions as to how parents can make the best use of their unique knowledge of their child's learning styles, interests and work preferences;
- explaining the learning patterns and needs that characterise children at different developmental levels; and
- creating homework assignments with this parent-child interaction in mind (Walker et al. 2004).

According to Cooper's analysis, there is a more positive relationship between time spent on homework and achievement when it is the student who provides feedback on whether the time they are spending on homework is appropriate (2007: 32).

Where to From Here?

The homework debate is hampered by a number of significant obstacles.

First, the literature on this topic is limited and is not universally representative. This preliminary research and discussion paper has identified a range of studies from the USA and the UK. It was not able to identify any similar research in the Australian context.

Second, much of the research is now quite dated.

Many of the “standard” papers referenced here are now at least five years old. Many are much less recent. The underlying research in some of these cases predates widespread access to the internet and anything like the contemporary level of access from homes to an expanding array of online resources. It seems likely that factors such as rapid advances in technology may have changed the learning context for students and families in significant ways over the past fifteen years.

Further research in this area is needed.

The Australian Council for State School Organisations (ACSSO) suggests that studies be carried out in Australia’s school communities in order to explore the complementary and contrasting perspectives of parents, students, teachers and principals at each level of schooling – in the contemporary context.

Such research would be essential to inform an effective policy and practice in Australian schools – a policy and practice supported by a shared understanding between teachers and families of how they can work together in partnership to support young people’s learning and personal development.

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