

Scoping research piece on homework for King Alfred School Society Committee

Introduction

Homework has historically been a much-discussed topic. Assigning it became common practice in the late C19, and concerns about its appropriateness and impact extend back over a hundred years both in the UK and in the US (Barker, 2013; Vatterrott, 2009). None of the current concerns about it is new. Marzano and Pickering (2007) and Vatterrott (2009) make the point that enthusiasm for it is cyclical, and public opinion tends to follow social trends. For example, according to Cooper and Valentine (2001), in the fifties, homework was fashionable in the US (seen as a way to promote knowledge acquisition and thereby get ahead of the Russians!), but fell out of favour in the 60s and 70s. Vatterrott (2009) suggests that, currently, the ease of contemporary electronic communication both fuels the anti-homework lobby and feeds parental anxieties by offering a plethora of tutoring opportunities, practice websites, and homework advice.

In the UK, 1998 saw the drawing up of government homework guidelines under David Blunkett. The guidelines claim to “draw on extensive research” (DfEE, 1998, p.4), but, except for OFSTED studies in 1995 and 1997, this research is not identified in the document. The guidelines recommended homework for primary pupils (ranging from 1 hour a week for years 1 and 2 to up to 30 minutes a night for children in Year 6) and increasing amounts for secondary pupils, up to 2.5 hours a night for Years 10 and 11. These guidelines were set aside by Michael Gove in 2012, in the interests of giving headteachers more autonomy; however, virtually all schools - including nearly all junior schools and most infant schools - now have firmly embedded policies on the giving of regular homework (Barker, 2013). OFSTED (2014) now looks for evidence of “appropriate” homework, without giving a definition of this.

Overview of research

Marzano and Pickering (2007) point out the limits of educational research, which cannot confidently assert that a practice such as homework is effective unless there is consistent substantial evidence. Most research on the topic seems to have been conducted in the US, though Cooper and Valentine (2001) and Vatterrott (2009) note that it has often been ignored by policy makers there. Cooper, Robinson and Patall (2006) and Hallam (2006) both acknowledge that conducting methodologically sound research into homework is very difficult, since there are so many variables, and establishing direct cause-effect relationships is virtually impossible. Similarly, Cooper, Robinson and Patall (2006) acknowledge that many of the individual research projects they review are flawed in design. Both Hallam and Cooper et al. – from the UK and the US respectively – have attempted to overcome the shortcomings of individual studies by conducting

extensive meta-analyses and drawing together the available evidence. Hattie (2009, 2012) has also synthesised meta-analyses which encompass homework research.

1) What is the purpose of homework?

Using the research literature, Hallam (2006) and Dwyer Sadlier (2010) suggest that there are a number of widely *perceived* purposes of homework, as follows:

- boost academic learning and achievement (1)
- support curriculum delivery (2)
- draw on resources not available in school (3)
- develop study and independence skills (4)
- meet the expectations of parents, pupils, school, and the government (5)
- promote home-school links and communication (6)

These are consistent with the purposes outlined by the DfEE (1998), which emphasised the development of good home-school links in the primary years, and the development of independent study skills in the secondary years.

Whether homework meets all these aims, however, is debatable (Hallam, 2006; Kohn, 2006; Cooper, Robinson and Pattall, 2006).

- Whether it supports academic learning and achievement (1) very much depends on what is understood by such terms and whether the type of homework set is consistent with such an understanding (see section two).
- In relation to the development of independent learning and study skills (4), the evidence is mixed. Hallam (2006) and Cooper, Robinson and Pattall (2006) found no research evidence to suggest that homework effectively promotes these skills. They suggested that it is more the case that students who have developed these skills manage their homework better (Hattie, 2009). However, Ramdass and Zimmermann (2011) reviewed a number of US studies and concluded that, if carefully designed and supported, homework can be used to promote the self-regulation skills in students from aged nine onwards.
- There is some evidence that an unlooked-for side effect of increased curriculum coverage through homework (2) may be boredom and demotivation (Hallam, 2006).
- Its promotion of home-school communication (6) is viewed by many as decidedly double-edged (see section three).

Both Vatterrott (2009) and Davis (2013) consider some of the unexamined assumptions which might underlie the prevalent “cult(ure) of homework” (Vatterrott, 2009, Chapter 1), and suggest that these are aligned with a puritan work ethic which prizes hard work for its own sake (regardless of

its usefulness) and the promotion of discipline and diligence in children from an early age.

2) What types and amounts of homework have been shown to be most effective at different ages?

Amounts

It should be borne in mind that researchers tend to measure what can easily be measured, and so have often looked at test results and grades as measures of effectiveness, and equated these with academic achievement. In this regard, the research has unearthed scant evidence on the benefits of formal homework in the primary years. (Cooper and Valentine, 2001; Hallam, 2006; Hattie, 2009, 2012, p.10). The main reasons suggested for this are that young children have still to develop study skills, and are, moreover, less able to screen out distractions when studying in their home environment (Cooper and Valentine, 2001). Cooper and Valentine also suggested that elementary school teachers use homework to try to foster learning habits and study skills, and less often set the learning of curriculum content – and the effects of the former kind of homework might not show in test results.

Homework has been shown to have modest positive effects at secondary age, when this is taken to mean higher scores on tests following rote learning tasks (Hattie, 2009, p.235; 2012, p.236).

After reviewing the available evidence, researchers such as Marzano and Pickering (2007) and Cooper, Robinson and Patall (2006) come out in broad but cautious support of homework.

Evidence from the US suggests that the relationship between the amount of homework done and achievement increases with age, but that too much is counter-productive. Specifically:

- students aged 11-14 doing 5 -10 hours homework a week did no better than those doing 1-5 hours, according to Cooper and Valentine's (2001) meta-analysis.
- the suggested optimal amount for high school students (aged 14+) is between 1.5 and 2.5 hours a night (Lam, cited in Cooper, Robinson and Patall, 2006).
- according to Hattie (2009), the achievement of higher ability students is also enhanced more by homework than that of lower-ability students. He suggests that this is because lower-ability students struggle to meet the demands of independent study, with consequent negative effects on their motivation. Hallam (2006) notes that at secondary level, lower-achieving students do indeed tend to get less homework, maybe in recognition of this.

Types

One very strong message (Hallam, 2006; Dwyer Sadlier, 2010; Challenge Success White Paper, 2012,) is that the type of homework set is more important than the amount. Researchers and opinion-formers alike note that assigning useful homework is challenging for teachers and is

frequently not given enough careful consideration. “– Most schools don't plan homework well enough for it to be worth doing. This is not to say that homework cannot be good, just that most of it currently isn't.”(William, in Judd, J, 2009). Lots of inadequately monitored homework has been found to be of little use (Trautwein and colleagues in Hattie, 2009, p.235).

Teachers, therefore, need to ensure that the homework they set is consistent with carefully-considered aims (Hallam, 2004, p.43). Dwyer Sadlier (2010, p.157) further suggests that planning for both homework and classwork should work backwards from a consideration of rigorous “defensible learning targets”, and points to Wiggin's “essential” questions (see Appendix) as criteria against which to measure the value of assignments. Bembenutty (2011) suggests that homework which inspires and motivates can support the development of self-regulation skills, which in turn help children to study independently and effectively. Dwyer Sadlier and Alleman (see Appendix) both call for assignments which help students to make connections between their learning in school and their everyday lives. The asterisked items in the bibliography include checklists of further suggested useful types of homework. The research to date has identified the following rather more prosaic features in relation to effective homework practice:

- Putting purpose first. Homework timetables (e.g. 20 minutes French on a Tuesday) are widely criticised for privileging policy, thereby encouraging teachers to set homework simply because it is expected (Hallam, 2006; Kohn, 2006; Dwyer Sadlier, 2010).
- Pitching it at the right level. Unsurprisingly, homework which children cannot complete independently has been claimed to have negative effects of their sense of “self-efficacy” and their motivation (Dwyer Sadlier, 2010), and vice versa; however, “busy” work - I have myself seen colouring in assigned at secondary level, as referred to by Davis (2013)! - is resented and leads to frustration (see section three).
- Designing short, frequent and closely-monitored tasks. Those which do not require higher-order thinking have been found to be most effective, according to Hattie's review. He suggests that this is because “teaching does matter when it comes to students' learning” (Hattie, 2009, p.235), implying both that learning routines and procedures need close oversight, and that more complex problem-solving, thinking and learning are perhaps better tackled in the classroom, with the teacher's support.
- Making connections. Practice and preparation which relate to more than just the *current* lesson content (Hallam, 2006) have been shown to have positive effects.

Finally, in regard to the development of effective types of homework, three further recommendations emerge from the literature:

- Consult the students. Macbeath and Turner's study (in Hallam, 2006) did so, and reported on their (quite moderate) expectations in relation to homework. Hallam suggests that

ongoing consultation and feedback with both students and parents is a useful way forward.

- Give students some choice about their homework. This is seen as a way of promoting their ownership and engagement with it (Hallam 2006; Vatterrott, 2009).
- Do the homework yourself. Alleman (in Bembenutty, 2011) suggests that when teachers do engage with homework assignments themselves as part of a shared class endeavour, this has a democratising effect, and boosts student motivation. (I suspect that this practice would also quickly throw light on the intrinsic worth - or not – of the activity.)

3) The impact of homework on children's stress levels and mental health

Homework is seen by some as a source of stress to children insofar as it is a contributor to family tension and conflict (Kohn p. 13). Such tensions may arise from the extent to which it impinges on family time (Hallam, 2006; Davis, 2013). Anecdotes about the impact of this abound in the writings of the opinion-formers (Kohn, 2006; Ohanian, 2007). Vatterrott (2009) summarises research associated with the “balance movement”, which emphasises the value for children of free play and unstructured family time, and the negative effect of homework on these, on children’s health, and (arguably) on their natural love of learning. “Frustration” is a word which occurs frequently in anecdotal parent and child reports concerning homework (Hallam,2006; Kohn, 2006; Lange and Meaney, 2011). Lange and Meaney's (2011) qualitative narrative study on maths homework in Denmark found that children can find themselves caught between conflicting school-child-parent understandings about homework tasks; these are also identified by Landis van Voorhis (2011) as a source of stress. They can be particularly difficult for lower achievers who are less able to explain “school” ways of doing things to their parents. Lange and Meaney further note the effect of procedural practice tasks on children's mental health, suggesting that doing things in the “school way” brings a “passive learner” mentality into the home. Like Farrell and Danby (2013) and Davis (2013), they suggest that homework contributes to school's tendency to dominate home life and skew parent-child interactions. Homework which has to be done the “school way”, according to them, negatively impacts on children's natural propensity to make meaning for themselves, and also on their “bodily agency” by imposing restrictions on their need for physical release.

As far as older students are concerned, Galloway and Pope's research with middle-class suburban American teenagers (2007) and that of Brown et al. (2011) concludes that large amounts of homework can be detrimental to adolescent well-being. Young people reported increased stress levels particularly when time spent on homework amounted to more than 3.5 hours a night; though in Galloway and Pope's study, 40% of students reported some stress symptoms even with workloads of 2 hours a night.

Galloway and Pope (2007) also found a small but consistent relationship between students'

perceptions of the usefulness of their homework and stress levels: students reported higher levels of stress when they felt that they were not really learning from their homework assignments (Conner, Pope, and Galloway 2010). Conversely, the more useful the homework was seen to be, the less stress was caused. Galloway and Pope noted that, as poor mental health is particularly associated with a “performance orientation” (the need to look clever), it is especially important to give quality, useful homework assignments to students with a performance orientation.

Many researchers make the point that consulting families and students can be useful in developing and maintaining worthwhile homework policy and practice, and thereby reducing the associated stress. (Hallam, 2006; Dwyer Sadlier, 2010, Bembenuddy, 2011). Home-school policies and practices seem often to be conceived as one-way deals (DfEE, 1998, p.8.). Lange and Meaney (2011) and Davis (2103) use the language of colonisation to describe the encroaching of school practices on the home. Jackson (in Marshall, 2013) suggests that a culture of passivity and compliance by both children and families (which starts extremely young, according to Farrell and Baker, 2011) - has negative consequences on the motivation and engagement of students in the adolescent years, when they are less willing to accept adult authority.

Take-home messages?

- Formal homework has little value at primary level.
- The perceived usefulness and meaningfulness of homework for older children is more important than the amount set. Moderate amounts of manageable homework, the rationale for which is clear to all stakeholders, are most beneficial.
- Too much homework may have adverse effects on adolescent mental health. At any age, homework also carries the possibility of causing or exacerbating tensions in family relationships, and imposing pressure on family time.
- Homework should be planned with the same attention to educational guiding principles as the classroom curriculum. Badly-designed homework, and homework just for the sake of it, is probably worse than useless.
- Consulting children and families and asking for their feedback regularly can support teachers in planning valuable homework experiences, and in developing and maintaining democratic home-school and student-teacher relationships.

Elizabeth Dawson

May 2014

Additional notes:

- *In the UK one or two schools, such as Tiffin Boys Grammar School, have experimented with abolishing homework or reducing it . Holy Trinity Primary School in Guildford abolished it in 2009 (Judd, 2009), but, following a disappointing OFSTED in 2013 (unfair according to Mumsnet!) has had to reintroduce it. Others (independent schools such as Malsis school in Yorkshire and the new Jane Austen academy in Norwich) have extended - or plan to extend the school day, so that homework or independent study is done on site (TES, 2013). This strategy has been often been driven by concerns for parity – between boarding and day pupils in some cases, and between children whose home circumstances vary with regard to resources and support.*
- *UK schools still mostly have written homework policies which typically refer back to the 1998 DfEE guidelines, and so cite purposes as outlined above.*

Further interesting areas:

- *The “equality agenda”, summarised by Menand (2012) and slated by Davis (2013). Notably, Francois Hollande abolished homework in France for primary age and KS3 pupils in 2012 in the interests of equality between children of different social and family backgrounds. Finnish schools set almost no homework, but perform at the top of international education rankings. Menand makes the point that Finnish policy is driven by an equality agenda; however, in contrast, in South Korea (which comes second to Finland) nearly all primary-age children have after-school tutoring !*
- *The harnessing of technology and social media to develop new homework practices, including “flipped learning”. This might mean students being introduced to content for homework (via VLEs, Youtube, reading, DVDs, etc.) and engaging in higher-order thinking/ /discussion/writing around it in the classroom (see section two).*
- *The role of parents in homework support, particularly in relation to supporting the development of a mastery-orientation in children.*

References

Alleman, J., Brophy, J., Knighton, B., Ley, R., Botwinski, B., & Middlestead, S. (2010). *Homework done right: Powerful learning in real-life situations*. Thousand Oaks, CA: Corwin Press.

* Summary of useful types of homework available at:

<http://www.ascd.org/publications/educational-leadership/sept10/vol68/num01/Homework-Done-Right.aspx> (Accessed 14 May 2014)

Barker, I. (2013). 'Is it time to scrap homework?' *TES Magazine* (February)

Available at: <http://www.tes.co.uk/article.aspx?storycode=6319948> (Accessed 12 May 2014)

Bembenuddy, H. (2011). 'Meaningful and Maladaptive Homework Practices: The Role of Self-Efficacy and Self-Regulation' *Journal of Advanced Academics* 22 (3) pp 448 -473

* Challenge Success White Paper (2012). 'Changing the Conversation about Homework from Quantity and Achievement to Quality and Engagement' Available at:
<http://www.challengesuccess.org/Portals/0/Docs/ChallengeSuccess-Homework-WhitePaper.pdf>
(Accessed: 13 May 2104)

Conner, J; Pope, D; Galloway, M (2010). 'Success with Less Stress' *Educational Leadership* 67 (4), p54-58

Cooper, H. and Valentine, J.(2001). 'Using Research to Answer Practical Questions about Homework' *Educational Psychologist* 36 (3), pp 143-153

Cooper, H., Robinson, J and Patall, E. (2006) 'Does Homework Improve Academic Achievement? A Synthesis of Research 1987-2003' *Review of Educational Research* 76 (1) pp. 1-62

Davis, A. (2013). 'Homework and Getting a Life' *Annual Conference: Philosophy of Education Society of Great Britain* Oxford: 22-24 March. PESGB. Available at: <https://www.philosophy-of-education.org/uploads/.../Papers/Davis.pdf> (Accessed 11 May 2014)

Department for Education and Employment (1998). *Homework: Guidelines for Primary and Secondary Schools* London: DfEE

Dwyer Sadlier, H. (2010). 'What's the point of homework?' *The International Journal of Learning* 17(10)

Farrell and Danby (2013). ' How does homework “work” for young children? Children's accounts of homework in their everyday lives'. *British Journal of Sociology in Education* Available at:
(Accessed: 19 May 2014)

Galloway, M. and Pope, D. (2007). 'Hazardous Homework? The Relationship between Homework, Goal Orientation and Well Being in Adolescence' *Encounter. Education for Meaning and Social Justice* 20(4) pp.25-31

Galloway, M.; Conner, J.; Pope, D. (2013). 'Nonacademic Effects of Homework in Privileged, High Performing High Schools' *Journal of Experimental Education*. 2013, 81 (4) p 490-510. (abstract)

Hallam, S (2004). *Homework : The evidence*. London : Institute of Education.

Hallam, S (2006). 'Homework: its uses and abuses' Available at:

<https://content.ncetm.org.uk/itt/sec/KeelePGCEMaths2006/Research/Homework%20Research/ReportSusanHallam.pdf> (Accessed 7 May 2014)

Hattie, J. (2009) *Visible Learning: A Synthesis of over 800 Meta-analyses Relating to Achievement* London: Routledge

Hattie, J. (2012) *Visible Learning for Teachers: Maximising Impact on Learning* Abingdon: Routledge

Judd, J. (2009). 'All work and no play?' *TES Newspaper*, 19 June, 2009 Available at:

<http://www.tes.co.uk/article.aspx?storycode=6015783> (Accessed 10 May 2014).

Kohn, A. (2006) *The Homework Myth: Why our Kids Get Too Much of a Bad Thing* Cambridge, MA: Da Capo

Lange, T. and Meaney, T. (2011). 'I actually started to scream: emotional and mathematical trauma from doing school mathematical homework' *Educational Studies in Mathematics* 77 (1). pp 35 – 51

Marshall, K (2013). Opinions About Homework: A collection of articles summaries from the Marshall Memo Available at:

http://www.greenwickschools.org/uploaded/district/pdfs/Homework_Committee_2012-2013/Homework_-_Kim_Marshall.pdf (Accessed: 7 May 2014)

Marzano, R. and Pickering D. (2007). 'The Case For and Against Homework' *Educational Leadership* 64 (6) pp 74 -79

Menand, L. (2012) 'Today's Assignment' *The New Yorker* (December) Available at:

http://www.newyorker.com/talk/comment/2012/12/17/121217taco_talk_menand (Accessed 6 May 2014)

OFSTED (2014) *The School Inspection Handbook* Available at:

<http://www.ofsted.gov.uk/resources/school-inspection-handbook> Available at: (Accessed 15 May 2014)

Ramdass, D. and Zimmermann, B. (2011) 'Developing Self-Regulation Skills: the Important Role of Homework' *Journal of Advanced Academics* 22 (2) pp. 194-218

Vatterrott, K. (2009) *Rethinking Homework: Best Practices That Support Diverse Needs*
Alexandria, VA: ASCD

Appendix

Characteristics of “essential” questions which can inform “defensible learning goals” for homework (and classwork!)

- “1. Causes genuine and relevant inquiry into the big ideas and core content;
2. Provokes deep thought, lively discussion, sustained inquiry, and new understanding as well as more questions;
3. Requires students to consider alternatives, weigh evidence, support their ideas, and justify their answers;
4. Stimulates vital, on-going rethinking of big ideas, assumptions, and prior lessons;
5. Sparks meaningful connections with prior learning and personal experiences;
6. Naturally recurs, creating opportunities for transfer to other situations and subjects.”

Source: Wiggins in Dwyer Sadler, H (2010). “What's the point of homework?” *The International Journal of Learning* 17(10)