

Let's Think Forum: Response to Ofsted's consultation on its new Education Inspection Framework

The Let's Think Forum is a charity and company limited by guarantee which promotes the cognitive acceleration programmes in Science, Mathematics and English developed at King's College London through research by Philip Adey and Michael Shayer (Adey and Shayer 1994; Shayer and Adey 2002; Shayer 2003). This response relates to all three programmes. A separate response relating to English has been submitted by Let's Think in English.

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Proposal 1

To what extent do you agree with the proposal to introduce a 'quality of education' judgement?

Strongly agree

COMMENT

We strongly agree with Ofsted's overall intentions as regards 'the quality of education' (i.e. the curriculum) because it focusses attention for the first time on the quality of *what* is taught as well as *how* it is taught. The new framework also declares that Ofsted will not look at schools' internal data. As indicated by HMCI in speeches, this is intended to persuade SLTs to reduce the amount of assessment they require. As a response to continuing concerns about teacher workload, this is highly desirable.

However, we have serious concerns about several aspects of Ofsted's proposals. Response is invited to two documents:

- The new draft Education Inspection Framework
- The new draft Inspection Handbook for maintained schools and academies (the schools with which we mostly work).

Two other documents are relevant:

- Education Inspection Framework : overview of research
- A series of training Powerpoints and videos used to train inspectors. These include Ofsted’s Curriculum Workshop presentation.

Our concerns are that the documents are inconsistent in their approach to the curriculum and may be unlawful or contrary to Government policy in three respects. These matters are detailed as follows.

References to research not included in Ofsted’s Overview of Research are listed at the end of this response.

PRELIMINARY CONCERN – INCONSISTENCY OF APPROACH

Taking the four documents together, they demonstrate an increasing emphasis on a particular kind of curriculum which is at odds with Ofsted’s declared policy. HMCI has repeatedly stated in speeches that that schools will not be expected to deliver an Ofsted-approved curriculum, e.g. “I want to reassure you that there will not be an Ofsted-approved curriculum. Instead, we are interested in why you make the decisions, whether your decisions are translating into practice, and how you know they are having the intended effect.” (Wellington School, 22 June 2018).

The new Education Inspection Framework reflects this neutrality as regards the curriculum, but the other three documents promote a “knowledge rich” curriculum with increasing directness and emphasis.

The Draft Inspection Handbook for maintained schools and academies

This document generally relates knowledge to skills and/or understanding, but occasionally privileges knowledge unrelated to skills or understanding.

Cultural capital (paragraph 163), also paragraph 177, bullet 2, and Grade descriptor for Good; Intent:

“As part of making the judgement about the quality of education, inspectors will consider the extent to which schools are equipping pupils with the knowledge and cultural capital they need to succeed in life. Ofsted’s understanding of this knowledge and cultural capital matches that found in the

aims of the national curriculum. It is the essential knowledge that pupils need to be educated citizens, introducing them to the best that has been thought and said and helping to engender an appreciation of human creativity and achievement.”

The phrase “cultural capital” does not appear in the National Curriculum. In the last sentence quoted above, it is equated with knowledge. There is no statutory basis for this and we return to this in our concern on page 7.

Implementation (paragraph 168) and The school’s use of assessment (paragraph 170)

Two bullets in 168 and also 170 refer to the need for pupils to “use/apply knowledge/key concepts fluently” without reference to understanding or skills. This is ambiguous and could refer to fluent regurgitation of information without understanding. This ambiguity would be removed if “and with understanding” were added after “fluently” each time.

Developing understanding, not memorising disconnected facts (paragraph 169)

It is surprising that it should have been thought necessary to insert this paragraph. Evidently there is concern that the emphasis on knowledge in the Overview of Research and training materials may result in a Gradgrind approach to teaching and learning. If there had not been such an emphasis in those documents, this paragraph would have been unnecessary.

Education Inspection Framework : Overview of Research

This document sometimes selects research and slants discussion of it so that knowledge is privileged over understanding and skills. Three examples are given.

Cognitive Load Theory (page 17)

“An important contribution to learning science is made by *cognitive load theory (CLT)*. CLT is concerned with the architecture of memory and the brain, and in particular the capacity of the short-term memory to process information. The long-term memory consists of a range of schemata, which are complex structures that link knowledge and create meaning and which are

built up over time. Experts possess far more detailed and complex schemata than novice learners. Learning is essentially about changing those schemata, through acquiring knowledge and making connections with different schemata. However, before entering long-term memory and developing schemata, information must first be processed by the short-term or working memory. As this has limited capacity, retention of knowledge and development of schemata will not happen if the working memory is overloaded (Kirschner et al, 2006). In educational terms, this suggests teaching in small chunks and not organising activities that require too much memory capacity, until learners acquire the knowledge that allows them to spend less time processing content. The theory has significant empirical support (Kirschner, 2002; Paas et al, 2003), although it needs to be tempered by an understanding of the *expertise reversal effect*. This shows that, among expert learners in a particular subject, enquiry-based approaches work better than the more explicit teaching that works best with novice learners (Kalyuga, 2007).”

This is mostly reasonable as far as it goes, but the account does not mention that CLT has not undergone trials in authentic classroom contexts across the subject range nor that most evidence for CLT is derived from teaching science and technology, not from English and humanities. It accordingly disregards the power of narrative as a way of significantly increasing memory and understanding in these subjects, the relevant research for which is outlined by Willingham (2004). Further, Sweller et al (2019) outline how far understanding of CLT has developed over 20 years towards rather than away from a constructivist model involving such aspects as self-regulated learning and the role of emotion in learning.

The above account also does not mention that CLT is one theory of cognitive architecture among others. There are other highly developed models of cognitive architecture e.g. Demetriou and Spanoudis (2017) that make useful contributions to understanding the complex relationships between ideas, concepts and their use that characterise richness of knowledge, in particular executive control processes that deal with misconceptions, appropriate application, representation and inference.

Vocabulary (page 22)

“There is clear and consistent evidence about the importance of vocabulary development. In addition, a range of studies highlight the extent to which

there can be a vocabulary gap between children from disadvantaged families and their peers (e.g. Huttenlocher, 2010 and Gilkerson, 2018). While some older studies have been challenged (e.g. Hart and Risley, 1995; Sperry et al., 2018), the majority of studies, including a recent study surveying teachers in English schools (OUP, 2018), suggest a strong relationship between vocabulary and social background, in addition to finding similar differences related to other communication and language skills, such as turn-taking during talk (Romeo, et al., 2018).

“Schooling is central to increasing pupils’ vocabulary, as up to 90% of vocabulary is encountered in reading and not in everyday speech. Vocabulary is particularly important to text comprehension, as children’s books tend to deploy far less common vocabulary than is found in day-to-day speech (Snow et al, 1998; Stanovich, 1993). However, fiction often does not give access to the more academic vocabulary used for high-level GCSE, A level and beyond. It is therefore concerning that evidence suggests that, while in primary school pupils tend to read books appropriate for their age, this is often not the case in secondary school. Boys in particular tend to read material appropriate for those below their chronological age. Non-fiction texts appear most likely to use overly simple language, and on average are two years behind readers’ chronological age (Topping, 2018).

“In addition to explicit vocabulary instruction, there is clear evidence that teachers can support comprehension by modelling how expert readers read actively, including by monitoring their understanding, asking questions, making predictions and summarising (Rosenshine, 1997; Oakhill et al., 2014; Davis, 2010; National Reading Panel, 2000; Stuart and Stainthorp, 2015). However, it is important to note that the effects of any type of strategy instruction will be limited if pupils lack the requisite vocabulary or background knowledge to engage with a text (Education Endowment Foundation, 2017).

“Another central, but often underestimated, aspect of reading comprehension is prior knowledge about the topic of the reading. The more knowledge readers have about the topic of a text, the better they will understand it (Willingham, 2012; Lipson & Cooper, 2002). This may appear just commonsense, but in some cases educators have focused on developing generic reading comprehension strategies rather than the subject knowledge required for understanding.”

The first paragraph misrepresents the findings of Romeo et al which are presented as “similar differences” to those in previous research supporting “a

strong relationship between vocabulary and social background". In fact, Romeo et al demonstrate that vocabulary acquisition is not chiefly related to social class nor to the number of adult words, but rather to the number of 'conversational turns' that a child experiences. This misrepresentation is serious in seeking to minimise a central finding about the acquisition of language. This matter is addressed more fully in the Let's Think in English response.

The last two paragraphs appear to advise the teaching of a great deal of prior knowledge to enable learners to access text. However, such approach reduces or even removes the opportunities for learners to infer and deduce meaning which are essential cognitive abilities. Following this advice, some schools are beginning to tell learners the content of a text before they read it with the result that the pleasures of expectation and suspense are removed. This in turn diminishes opportunities for enjoyment of reading which the National Curriculum repeatedly describes as essential.

The approach outlined by Ofsted's discussion of research on vocabulary is apparently intended to lead to a growth of teaching vocabulary by direct instruction. Obviously some vocabulary must be taught in this way – a learner cannot meaningfully discuss Shakespeare's verse without knowing "iambic pentameter" or the growth of plants without knowing "photosynthesis". But there is already evidence of uncontextualized vocabulary lists appearing online accompanied by definitions and tests. A common and growing pattern is that learners are required to learn x words and their definitions each week; sometimes asked to use them in sentences to showing understanding; and then tested on their spelling and meaning.

Ofsted's discussion of vocabulary disregards or shows no awareness of Nagy and Anderson (1984; 1993) who calculated that, by the end of high school, a student needs to know at least 88,500 words. If 20 new words are learned each week for 40 weeks per year over 11 years of schooling, the total is 8,800, less than one-tenth of those needed. Clearly other strategies of vocabulary acquisition are needed as outlined by Nagy and Anderson and others, most centrally by effectively stimulating learners to read for pleasure.

The effect of Ofsted's presentation of research on vocabulary acquisition is therefore to encourage ineffective or even harmful teaching practices.

Mathematics

More generally we are concerned that the presentation of mathematics emphasis facts and procedures over connections and conceptual knowledge. The inappropriateness of this is explained, for example, in Donovan and Bransford (2005).

Curriculum Workshop presentation

A similar approach appears in the Curriculum Workshop presentation where, on 66 slides, the word “knowledge” appears 58 times (excluding “curriculum knowledge” on Slide 8 referring to school leaders), but “understanding” appears once (Slide 20) and “skills” does not appear at all.

Specific examples of this approach are:

- Evaluation of a description of London by Dickens (Slide 18) which is discussed only in terms of three kinds of knowledge (similar descriptions including archaic language; evaluation questions and exam requirements; historical context) and SPAG (spelling, punctuation and grammar). There is no mention of such central features as style, the writer’s intentions or the effect on the reader.
- Slides 26 and 27 where trainees are asked what kinds of knowledge are needed to read a page of Robert McFarlane’s *Mountains of the Mind*. It is suggested that seven kinds of knowledge are needed with the implication that these should somehow be taught before students can access the page.

The influence of this approach on teachers can be estimated from the fact that, when accessed on 29 March 2019 at 19.15, this presentation had been viewed 24,887 times.

This matter forms part of our first concern below.

OTHER CONCERNS

We have concerns that Ofsted’s proposals may be unlawful or contrary to Government policy in three respects.

1 Ofsted’s privileging of knowledge over understanding and skills may be unlawful. Education Act 2002, section 87(3), requires the Secretary of State to establish a National Curriculum including ‘programmes of study’. These are defined by section 76 as “matters, skills and processes which are required to be taught to pupils”.

This duty is repeated in The National Curriculum in England, paragraph 3.4. Paragraph 3.2 also states: “The national curriculum provides an outline of core knowledge around which teachers can develop exciting and stimulating lessons to promote the development of pupils’ *knowledge, understanding and skills* as part of the wider school curriculum” (emphasis added).

In these two formulations, “matters, skills and processes” and “knowledge, understanding and skills” are evidently equivalent. Knowledge or “matters” must obviously come first as the basis for skills and understanding/processes, but there is no ground in law for privileging knowledge as more important than the other two statutory aspects of learning which are presented in statute and statutory instrument as of equal weight with it.

The Draft Handbook, Overview of Research and training materials such as the Curriculum Workshop presentation therefore appear to be unlawful insofar as they seek to privilege knowledge without equal reference to understanding or skills and need to be revised to comply with the statutory National Curriculum requirements in this respect.

2 The requirement to implement a curriculum with a particular emphasis is contrary to Government policy guaranteeing curricular and other freedoms to schools. The Schools White Paper, *The Importance of Teaching* (November 2010), established policy on schools which have been followed by subsequent governments. The White Paper’s foreword, signed by the Prime Minister and Deputy Prime Minister, outlined school autonomy as one of three major reforms:

“The second lesson of world class education systems is that they devolve as much power as possible to the front line, while retaining high levels of accountability. The OECD has shown that countries which give the most autonomy to head teachers and teachers are the ones that do best. Finland and South Korea – the highest performing countries in PISA – have clearly defined and challenging universal standards, along with individual school autonomy... Academies improved at GCSE level twice as fast as other schools in

2008 and 2009. This week's Ofsted Annual Report confirms their success – explaining that their freedoms allow them to innovate and 'ensure that educationalists can concentrate on education'. This White Paper, for the first time, offers these freedoms to all schools in a way that encourages them to work with each other to improve."

Later sections of the White Paper amplify this policy and the Academies Act 2010 has implemented it. Since then, schools have been encouraged to become academies with more than two-thirds of secondary schools converting. The Act confirms academies curricular freedom by not requiring them to follow the National Curriculum but to provide a comparably "balanced and broadly based curriculum".

One of the purposes of encouraging schools to become academies, stated in the White Paper and subsequently by Government ministers, is to encourage curriculum innovation: "We will expect schools to set their own improvement priorities. As long as schools provide a good education, we will not mandate specific approaches. Schools will determine what targets to set for themselves, choose what forms of external support they want and determine how to evaluate themselves. We will make sure that they have access to appropriate data and information so that they can identify other schools from which they might wish to learn, that there is a strong network of highly effective schools they can draw on for more intensive support, and that schools can identify other useful forms of external support as necessary." (paragraph 7.6)

This intention would be thwarted by Ofsted privileging a particular curricular emphasis in its proposals which is accordingly contrary to Government policy.

3 The need for a greater focus on schools' provision of professional development for teachers.

It is well established that teachers need frequent regular provision of professional development to ensure that they teach as well as possible and the DfE has published well-judged guidance on this as *Standard for teachers' professional development* (DfE 2016). This includes the requirement that "Professional development must be prioritised by school leadership."

Although the draft Framework and Inspection Handbook include provision of CPD as criteria for Outstanding and Good for Leadership and management, we believe this is insufficient. Inspectors award grades according to 'best fit' and,

in principle, a school could be judged Outstanding or Good if its provision of CPD was indifferent.

The DfE document supports the view that effective CPD is vitally important for successful teaching and we therefore believe that (a) Ofsted reports should state the number of PD days attended by staff in the previous 12 months and (b) that Outstanding or Good should not be awarded for Leadership and management unless this figure, and staff's view of the quality of the PD received, are appropriate in terms of the DfE guidance.

CONCLUSION

Appropriate amendment of Ofsted's proposals is sought in respect of all the matters described above.

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