

**Deep thinking and high ceilings:
Using philosophy to challenge 'more able' pupils**

Carrie Winstanley

University of Roehampton

c.winstanley@roehampton.ac.uk

Abstract

At different times in their school career and across different subject areas, some pupils may require additional and/or more complex tasks from their teachers, since they find the work set to be insufficiently challenging. Recommendations for coping with these pupils' needs are varied, but among other responses, it is common, in the field of 'gifted and talented' education, to advocate the use of critical thinking programmes. These can be very effective in providing the missing challenge through helping develop pupils' facilities for building and defending rational argument. However, the exercises can be just that; mental agility tasks that lack relevant context. When children engage in learning philosophy in school, they benefit from the experience of developing logical, rigorous argument; but the subject can offer more than critical skills practice. Since philosophy attends to questions about things that matter in pupils' lives, discussions can have an ethical and moral dimension and as such can be more than an intellectual exercise. Pupils of all abilities and propensities can become involved in the discussions, but the open nature of the areas of debate lends itself particularly well to providing challenge for pupils who need enriched and extended tasks in order to remain engaged. Some of the well-rehearsed Philosophy with/for Children methods are also designed to help develop mutual respect and understanding and so philosophy not only appeals to the cognitive and intellectual in children, but places this development in a context that fosters positive personal qualities.

Key words

Critical thinking; deep learning; highly able children; philosophy for children

Introduction

This article has a tricky starting point, focusing, as it does, on challenging 'more able' or 'gifted and talented' pupils which in itself is a contentious notion. Before explaining

something of the benefits of the high ceilings and deep thinking that philosophy affords in the school context, it is necessary initially to explain what I mean by 'more able' pupils and show why there is concern for their needs in mainstream educational settings by considering the field of gifted education, the nature of 'high ability' and the learning needs of 'more able' pupils.

Who are 'more able' pupils?

Readers will surely have their own views on concepts of ability and of the necessity, value and efficacy of 'gifted education'. Many will be suspicious, sceptical or dismissive about the notion that some pupils can be described in this way, or that any pupils should be described in terms of 'ability' at all. However, most will agree that pupils have differing needs, whether or not they accept the concept of 'giftedness' or 'high ability'. It is perhaps surprising to some readers that anyone would worry much about 'more able' pupils, especially as the label - where it used at all - is frequently understood (often erroneously) to be synonymous with high achievement.

This paper necessarily makes some broad assumptions about working with more able pupils; there is insufficient space to discuss all the nuances of the on-going debates in this complex and contested field. Some factions cling to the use of psychometric testing (see for example the journals *High Ability Studies* and *Gifted Child Quarterly*), and as a result continue to suggest segregated schooling or streams offering tailored provision; ideas seen as out-dated in other quarters (such as Borland 2012; Ambrose et al. 2012b; Wallace et al. 2010). A more workable and less contentious approach is to consider the needs of each pupil and ensure that within a comprehensive educational offering those specific needs are met. This approach does not presuppose a fixed 'group' of able children, but allows for anyone with apparent or potential high attainment to be provided with appropriate activities or settings to help them develop their skills. For practical purposes, a group could be formed for a session, but this way of working does not necessarily require individuals to have a fixed label of 'gifted'. Borland, for example, suggests a variety of ways of working with pupils who require something more than the statutory curriculum, but simultaneously rejects the notion of 'gifted education' (Borland 2012).

Scholars in the field of gifted education have been arguing over vexed questions of ability and education for more than a century, particularly in the USA, Australasia and Europe. The shifts and developments in understanding high ability are neatly summarised here:

First-wave researchers laid the foundation by asking the question, 'what is giftedness?' in the first place, and introducing intelligence tests to measure it. Second-wave researchers built on the foundation of intelligence theory by discovering multiple, distinct ways to be gifted. Third-wave researchers recognized the importance of both domain-general and domain-specific proclivities, but also added other psychological variables they felt were important components of giftedness. Fourth-wave researchers widened the lens even more, taking many of the ideas of the first three generations of giftedness researchers, but placing talent within a developmental context that includes variables external to the individual such as the environment. (Kaufman & Sternberg 2008, p. 79)

Current thinking in gifted education is no less controversial than in the past. The 'progressive wing of the field' (Haight 2014, p. 332) has been steadily addressing many of the early worries in the field, but these voices are not always heard by detractors (Matthews and Dai, 2014). Articulation of the problems has become more pointed and the voices of dissent have grown louder over the years.

Gifted education seems to be a fragmented, porous and contested field (Ambrose et al. 2010) so no single theory dominates conceptions of giftedness. Consequently, dogmatism in the field takes the form of insular or competing camps, each promoting a particular perspective and either ignoring or denigrating the others. The result has been an unsettled field with practical program development and curricular and instructional initiatives insufficiently grounded in theory and research. (Ambrose et al. 2012a, p. 5)

As De Corte points out, 'research on giftedness is still not well connected to the mainstream of educational research' (2013, p. 3). In the UK, for example, the leading education research organisation, BERA (British Education Research Association), has no special interest group for gifted education. Key questions concern the identification of pupils who may need additional challenge and the type of pedagogy that best helps pupils who are not sufficiently challenged by the statutory school curriculum (Wallace et al. 2010; Treffinger 2009). In some instances, pupils develop atypically and asynchronously, requiring nuanced approaches that play to their strengths but also support their areas of difficulty; in other examples, pupils achieve very highly, easily managing to complete set tasks and exhausting the planned activities more quickly than teachers anticipate (see Montgomery 2009; Winstanley 2004; Gallagher et al. 1997 for detailed examples). These situations can be tricky for teachers to manage and it can be hard for pupils to maintain motivation in the face of work that fails to engage through being too simple. However, there are not sufficient rigorous empirical studies to come

to uncontroversial conclusions about exactly who counts as more able and precisely what could be done to support such pupils. Some fringe groups in gifted education still advocate a singular measure of 'pure' psychological testing as the only required description of ability; some policymakers continue to advocate complete segregation for more able pupils, and other somewhat extreme measures (as reported by various authors in a myth-busting edition of *Gifted Child Quarterly* (Treffinger 2009)). These notions contradict the more commonly cited and respected researchers and specialists who tend to agree that more able pupils must learn to socialise through predominantly experiencing mixed group teaching with some separate provision where appropriate, usually based on interests or abilities that may not be shared by age peers (such as Silverman 2011; Borland 2005; Sternberg & Davidson 2005; Van Tassel-Baska 2004).

Despite on-going wrangles, some consensus seems to be emerging in gifted education that an optimum approach for many pupils is to focus on creating and developing talents in mainstream settings, and this can involve the provision of additional challenge for some at different times in their school journey (Ambrose et al. 2012b; Wallace et al. 2010; Borland 2005). Borland affirms:

The only justification for gifted programs is a special educational one, grounded in belief that the regular curriculum designed to meet the needs of most students is inappropriate for some students who by virtue of disability or ability, are exceptional and will not receive the education to which they are entitled unless the curriculum is modified. (2005, p. 13)

Borland asserts that 'giftedness, in the context of schools, is a chimera' (2005, p. 2). He also proposes the ideal of 'gifted education without gifted children' by which he advocates effective and detailed differentiation in regular classrooms and no need for labels.¹ These notions were met with concern in the field of gifted education when first mooted. The idea has gained traction, however. Increasingly, there is agreement that properly differentiated classrooms would serve to eliminate many of the problems associated with more able pupils. These issues are traditionally tackled with pull-out enrichment programmes, segregated grouping and acceleration through the curriculum, all of which have well-documented drawbacks (Treffinger 2009; Wallace et al. 2010; Silverman 2011).

Differentiated provision within mainstream classrooms would better serve the heterogeneous 'group' of more able pupils. Differentiating in-class materials for pupils

¹ '[It] is my belief that all students are entitled to a humane, appropriate, effective, and life-affirming education and that the students whom one tends to find in gifted programs often do not receive such an education.' (Borland 2012).

can be notoriously difficult; it will only succeed if teachers have a positive attitude to the more able as well as being well-trained and highly motivated (De Corte 2013). However described, at different times in their school career and across different subject areas, some pupils are likely to require additional and/or more complex tasks from their teachers, since they find the existing set work to be insufficiently challenging. This does not mean that such pupils are high achievers. Even if the intellectual aspect of the task in question is easy for the pupil, they may be struggling with barriers to their work arising from learning difficulties, sensory impairments or disabilities; others have cultural disadvantages to manage and some have become disaffected through a combination of complex factors. Wallace et al. (2010) break down different typologies of underachievement among more able pupils, showing the range of behaviours frequently observed in classrooms, from disruptive or disengaged pupils, through risk avoiders and those who start a lot of tasks but never actually see them through to completion, to pupils choosing to coast along, and others struggling with specific learning problems. Different approaches will be needed to encourage participation and ensure some degree of success for these pupils, but most of these tactics can be adapted to various different curriculum subjects. For example, in order to integrate a disengaged pupil, allowing some independence, trust and ownership of tasks can be helpful, whilst those avoiding risk need additional peer and teacher support to move out of their comfort zone and realise that stumbling over a task is a learning opportunity rather than a disaster (Montgomery 2009; Wallace et al. 2010).

Given all of these complex issues, it is important that we consider how we talk and think about children, their abilities and needs. Howe emphasises this, observing:

the ways in which we adults think about abilities have practical consequences that affect the lives and fortunes of numerous children. If the beliefs that guide our decisions and actions are faulty, it is entirely possible that we could be denying children opportunities that would help them to thrive, by putting them off from valuable learning experiences and effectively slamming doors in their faces. (1990, p. 28)

I contend that all pupils merit *equality of challenge* (Winstanley 2004, 2010). No matter whether the abilities are established or developing, I advocate any activities that allow pupils to express their interests, passions and to open up possibilities for further development. Although others in the field would limit provision to those with proven aptitudes, I am not alone in my view, as other researchers agree that challenge is key for

all (Van Tassel-Baska & Brown 2007; Treffinger 2009; Gallagher et al. 1997; Splitter 2007; Scager et al. 2013, etc.)². Merry states:

the gifted are owed what *all* children are owed, namely, a quality education that adequately challenges them. Defining both *adequate* and *challenge* is itself difficult, but we can say this: to be adequately challenged is to be presented with tasks that demand substantial growth in ability, understanding and the ability to flourish. (2008, p. 57)

Pupils are entitled to engage in work at school that accounts for their level of understanding, knowledge, skills, experiences and interests. 'Gifted students may not deserve more attention than students generally; but they don't deserve less either' (Splitter 2007, p. 207).

In the case of some pupils, this may imply opportunities that are additional, or alternative, to the common curriculum.

Are some curriculum subjects optimal for more able pupils?

Differentiated provision in the mainstream classroom has been postulated above as the optimum way to provide varied challenge for pupils, but what kind of curriculum should the mainstream classroom comprise? All school subjects can be taught in ways that extend and enrich the more basic concepts that tend to make up the expectations of the common curriculum. Well-tested ways of extending some subjects are a key part of most schools' offer. These are frequently provided as extra-mural opportunities and are generally available for children who exhibit enthusiasm for particular activities, as well as being for those who already demonstrate an apparent aptitude. They include, for example, local and national-level sports competitions for more able pupils in physical education, choirs and orchestras for the more able musicians, drama performances for the more able actors and so on. For those who have a propensity for philosophical ways of thinking, suggestions tend to be made for partaking in debating activities or chess club, but these do not quite hit the spot.³

² From their interviews with pupils designated as more able, Gallagher et al. note: 'Consistent themes stated by the students about the curriculum's lack of challenge included a slow pace, too much repetition of already mastered information, inability to move on after mastering the regular curriculum, few opportunities to study topics of personal interest, and an emphasis on the mastery of facts rather than the use of thinking skills.' (Gallagher et al. 1997, p. 132)

³ For a good discussion about the difference between debate and dialogue, see Davey Chesters: '... a debate is aimed at winning an argument whereas a dialogue aims at a greater understanding through collaboration' (2012, p. 17).

In an oft-cited exemplar about challenging curriculum, renowned gifted education scholar Van Tassel-Baska (2004) sketches out nine key features that make Latin a particularly appropriate subject for teaching to the able child.⁴ She makes no strong claims about the exclusivity of Latin as the only way to meet these requirements and in an earlier book (2010), I have shown that music also matches her criteria, and could therefore meet many of the needs of the able pupil, with the added benefit of being more readily accessible than Latin for most children. Her analysis is useful, however, as it applies much of the knowledge from decades of research about the common curriculum, able learners and talent development. Rather than using it to make an argument for any one subject to be the panacea for the needs of the more able, it is a good way of summarising key features of a curriculum diet that can satisfy learners in need of additional complex activities. I would argue that philosophy can fulfil the criteria for providing appropriate challenge for more able learners in mainstream settings. In her analysis, Van Tassel-Baska identifies Latin as developing useful transferable intellectual habits and of teaching depth of analysis through analysis of 'complex sentence structures and the interplay of form and substance' (2004, p. 57). Her criteria are as follows:

1. Latin develops intellectual habits of mind. It provides a structure for thinking about language that can be transferred to other work, as well.
2. Latin teaches deep analysis ... Analyzing complex sentence structures and word forms focuses attention on the interplay of form and substance ...
3. Latin provides an understanding of Western heritage ... Reading ancient writers and thinkers provides an understanding of contemporary ideas.
4. Latin enhances English vocabulary ...
5. Latin enhances English linguistic competency ...
6. Latin provides a strong base for third language learning...
7. Latin exemplifies interdisciplinary studies by combining history, literature, art, and philosophy with the study of the language itself ... Studying a language penetrates the heart of a culture as no other approach does other than living in the culture itself ...

⁴ Her ideas were originally mooted in 1987 and have been continually refined in line with newer research findings from the field of gifted education as she explains in her discussions of her Integrated Curriculum Model (ICM) – see Van Tassel-Baska and Brown (2007).

8. Latin provides the challenge of learning a new abstract symbol system. Learning Latin provides the slake in the thirst of gifted students for challenge. It is complex, yet logical, systematic, and yields enjoyment ...
9. Latin provides higher level thinking ... and ... ways of being in the world still seen today as archetypes for living. (Van Tassel-Baska 2004, pp. 57-58)

Depending how it is taught, philosophy can meet these criteria, as well as being an interdisciplinary subject that can be related to extant curriculum areas such as history, science, art, literature et cetera.⁵ If such elements are shown to be significant for particular learners, they could easily be incorporated into a philosophy course of study. Of all the benefits claimed for Latin, only those directly linked to language learning are more contentious to claim for philosophy. Although philosophy is not a language, it can certainly introduce learners to new words and phrases in English, as well as a smattering of other languages with a focus on etymology and even the use of symbolic logic, at a more advanced level.⁶ Despite not being a new symbol system, philosophy delivers the same results, also being complex, systematic and (sometimes) enjoyable.

In addition to philosophy as a curriculum subject providing challenge, it is possible to argue for the inclusion of philosophy as a critical thinking programme; another popular response to meeting the needs of able pupils (e.g. Montgomery 2009; Wallace et al. 2010; Splitter 2007; Scager et al. 2013). Philosophy has an advantage over other cognitively-based critical thinking programmes for various reasons (see Winstanley 2004), but one particular feature of philosophy that most sets it apart is the possibility for direct engagement with ethical concerns. Other critical thinking programmes do not generally focus on values, nor do they address moral behaviour and ethical understanding, being, as they are, exercises in logic, rationality and reasoning. They tend to consist of abstract or 'fun' puzzles, often unconnected or loosely grouped activities, unlike philosophical discussions where issues may relate directly to a real-life situation or conundrum.

Why philosophy for more able pupils?

Whether considered as a curriculum subject in its own right, or as a critical thinking programme, perhaps with an emphasis on ethical issues, philosophy can meet many of the requirements of teachers wanting to work with mixed groups, providing for the

⁵ For more detail about defining philosophy as taught in schools (both formally and informally) see Hand and Winstanley (eds), 'Introduction' in *Philosophy in Schools*, 2008, pp. x-xviii.

⁶ With gratitude to an anonymous reviewer for pointing out that 'philosophy offers pupils a fairly straightforward route into symbolic logic'.

needs of all pupils including challenging the more able. So, how can this be the case? Well, philosophy matches the requirements for an adaptable method or subject that can be accessed by all pupils, whilst allowing the more adept to work to a high level, particularly in abstract areas, but not divorcing these tasks from real-life moral concerns.

Philosophy can be taught flexibly

As shown in the contributions to this special issue, a range of different approaches to teaching philosophy in schools exists, and this flexibility allows for the adaptation of pedagogy to meet the varying needs of diverse pupil cohorts. These various approaches allow for teachers to search for a pedagogy that suits their pupils, providing varied options to support pupils with different strengths and needs. In this article, no particular approach is exclusively recommended above another; it could be that an empirical study would provide some definitive answers about which methods are most effective in maximising engagement for children of particular age groups and/or with specific propensities, interests, abilities and preferences. However, with ethical aspects in mind and as suggested by Splitter, writing about undertaking philosophy with 'intellectually gifted' children, it is likely that:

philosophy, like any form of deliberative thinking, is most fruitfully pursued in the context of a collaborative and supportive environment known as the community of inquiry. (Splitter 2007, p. 208)

From the early work of Lipman through to new and current practices, changes and exciting developments have characterised the field and it would be worthwhile reviewing which methods and approaches could prove most helpful for teachers striving for effective differentiation. Some of the developments in philosophy pedagogy have included improvements in terms of inclusivity and of rigour (Gorad et al 2015; Robinson 2014; Cassidy 2012), both areas that could be helpful for able pupils, including underachieving able pupils in particular.

Another practical advantage of philosophy as a flexible subject, is that it can easily be run as a lunchtime club, or as an extra class, if that is most appropriate for a particular context. If there is someone who is able to facilitate, because philosophy can use a wide range of stimuli, or even none, it can be taught without the need for expensive resources or the need for a large space. The impact of the next four points discussed in this article presupposes that an appropriate pedagogy for philosophy is used to match pupils' attributes, requirements, propensities and preferences. Just as the needs of pupils will

vary, so will the optimum pedagogy depend on the teacher knowing their students and considering how to match the activities to the individuals and to the group. As Splitter observes, 'it may be true that gifted students take to philosophy like ducks to water, but the former, unlike the latter, still need to be taught to swim' (2007, p. 217).

Deep thinking: critical thinking, abstraction and metacognition

Depending on the pedagogy used, the nature of philosophical discussion can encourage the development of deep thinking. In her detailed review of dialogue (largely using Lipman's materials), Gardner asserts:

the facilitator must be encouraged to push for more in-depth thinking on the part of his/her students. That is, the facilitator needs to be persistent in ensuring that students not only justify their answers but justify their justifications ... questions that 'push' for depth are similar to, though more extensive and 'deeper' than those that merely promote good thinking. (1995, p. 109)

In opposition to surface thinking, deep thinking and deep learning approaches improve engagement and result in more meaningful learning (Marton & Säljö 1976; Chin & Brown 2000). These different learning approaches are apparent in different categories (here they are listed specifically in relation to science, but they are also broadly applicable to other subjects): generative thinking, nature of explanations, asking questions, metacognitive activity, and approach to tasks. The researchers noted that:

When students used a deep approach, they ventured their ideas more spontaneously; gave more elaborate explanations which described mechanisms and cause-effect relationships or referred to personal experiences; asked questions which focused on explanations and causes, predictions, or resolving discrepancies in knowledge; and engaged in 'on-line theorizing'. (Chin & Brown 2000, p. 109)

In particular the pupils' questions were markedly different at surface and deep levels. Initially, procedural and clarificatory questions predominated, increasing in complexity (Chin & Brown 2000, p. 124), and although this was in a context of science, there are some philosophy and other critical thinking programmes that start with these types of questions and deliberately help pupils move to more complex and abstract ideas (Swartz & McGuinness 2014). Chin and Brown observe that:

questions associated with a deep approach to learning tended to be wonderment questions [which] served to direct further inquiry, tended to elicit responses that

were of a more conceptual nature, and had a great potential contribution for an advancement in conceptual understanding. (2000, p. 124)

Significantly, pupils adopting deep learning approaches showed a likelihood to 'engage in talk at the conceptual, analytical, and meta-conceptual levels, beyond the procedural and observational levels that the surface approach learner typically engaged in' (ibid: 126). This willingness to become absorbed with in-depth dialogue links to social constructivist 'active' ways of learning (Sternberg & Davidson 2005). As Lipman (1991) notes, 'in dialogue, the aim is for disequilibrium is creating opportunities for renewed understanding that comes from difference' (cited in Davey Chesters 2012, p. 13).

Abstraction is part of philosophical method. The subject matter of philosophy is similarly abstract, and tends to chime with pupils who are interested in existential questions such as those about life, love and death. What marks out the (potentially) talented or able pupil in this regard, beyond their initial perhaps slightly unusual heightened level of curiosity, is the dogged manner in which they pursue answers to their difficult questions. Most children will engage with these abstract ideas, but not all will choose to explore in depth and really get to grips with finding possible explanations. Some of the most common descriptors for more able pupils include the early propensity for dealing with complex ideas, the abilities of abstract thinking. Alternatively, if we frame high ability as 'talent development', opportunities for abstract thinking can be helpful in affording learners the opportunity to hone a range of skills. For example, practice in structuring arguments and decision-making over whether an empirical investigation or conceptual exploration would be best suited to finding a certain answer (Scager et al. 2013; De Corte 2013; Treffinger 2009). In philosophy, the possibility of airing and rehearsing critical thinking and reasoning allows for the expression and development of ability in a way that is less likely to emerge in other subjects.

As well as practising abstract thinking, it is valuable for children to reflect upon their thinking and review the processes they have used. For this reason, since the 1980s, thinking skills programmes have proliferated, often designed and/or harnessed to meet the needs of more able pupils (Swartz & McGuinness 2014; Winstanley 2004, 2010). Various researchers have discussed the merits of these critical and creative thinking programmes for more able pupils and the consequent problems of disengagement that arise when these aspects of their education are neglected (Ambrose et al. 2012b; Wallace et al. 2010). Metacognition is therefore an aspect of thinking that is repeatedly recommended for more able learners (Wallace et al. 2010; Montgomery 2009; Sternberg & Davidson 2005).

In the psychological literature, metacognition generally refers to two complementary strands (1) knowledge about cognition – about cognition in general and one's own cognition – involving some degree of awareness; and (2) self-regulation or the ability to plan, to monitor and adjust one's thinking in relation to task demands and to evaluate thinking outcomes (Flavell, 1979; Brown, 1987; Kuhn, 2000). (Swartz & McGuinness 2014, p. 11)

In some of the programmes, aspects of metacognition are bolted on to tasks where children are asked to explain how they approached something after they have completed the substance of the activity. In philosophy, breaking down the task and examination of method are both central to the discipline and activity itself and so engaging in such reflection lacks the contrivance sometimes found in 'activity reviews' in thinking skills programmes. Through engaging in philosophy, children are developing positive intellectual dispositions (or virtues), through which the assessment and evaluation of their own and others' reasoning becomes habitual. Splitter contends:

To take philosophical inquiry seriously is to develop the habit of thinking more slowly and more carefully - of paying attention to things otherwise ignored or taken for granted - a habit which all children, but 'quick' children in particular, need to cultivate. (2007, p. 210)

The practice of self-regulation helps pupils develop a more productive way of learning (De Corte 2013) and they positively enjoy a focus on how they think (Gallagher et al. 1997).

Philosophy is appropriate for both higher and lower achieving pupils

As outlined earlier, more able pupils are not a homogenous group. They are not always high achievers, for a range of reasons. Teachers and managers in school settings have a responsibility to identify and alleviate any concerns preventing a child from flourishing and for underachieving able children; this means supporting the problem areas but also providing stretch where there is interest and ability. Philosophy can therefore be a popular subject for children who have palpable gaps between their competent, good, or excellent oral expressions of complex high level thinking, and their less remarkable attempts at written work. Since PwC is frequently a dialogic, oral activity, pupils can rely on their abilities to listen, to think and to argue, rather than struggling yet again with the usual written tasks they customarily dislike. Engaging with cognitively challenging discussion allows them to participate fully, helping to combat underachievement (Montgomery 2009, pp. 127-128). The refreshing variety of using a

different pedagogy is also helpful for underachieving pupils since building a Community of Enquiry, say, or utilising another type of pedagogy for philosophy is an attractive change from typical classroom work. There is no requirement to record what happens in a session; it is an experience that does not (usually) need to be written-up. Interestingly, whilst philosophy can be unsettling in a positive way for pupils who do not tend to enjoy more conventional schoolwork, it can sometimes prove difficult for those who typically do very well in regular classroom activities. Some high performing pupils relish the additional challenge and take it in their stride, but others are dismayed to discover that their usual approaches need to be significantly adapted for PwC. Their strengths in writing or strictly adhering to step-wise instructions are less useful here, and unlike other subjects in school, fewer clear answers can be ticked and verified, rendering feedback different and potentially disturbing for those used to consistent and unambiguous 'very good' grades. Philosophy disrupts the common classroom experience where there may be only a narrow range of optimal answers to a task and so the culture of the high-achiever is threatened, often allowing different pupils to shine. Here, Whalley reflects on the reception of her philosophy sessions:

Interestingly, the few dissenting voices often come from those children who are clever in the traditional academic sense. They are puzzled and resentful when they realise that philosophical questions are not amenable to simple, straightforward answers - even from the teacher! Such children have unfortunately been trained to perceive educational value only in what can be examined and tested. (1987, p. 73)

These pupils tend to contribute willingly in many classes and so being made to listen to their peers through the adoption of particular dialogic methods can be helpful. At first, some can find this tricky, but being out of their comfort zone is valuable for developing resilience and for learning to adapt their abilities to overcome different types of obstacles (Montgomery 2009; Wallace et al. 2010; Winstanley 2010).

Philosophy has a 'low threshold' and a 'high ceiling'

The phrase 'low-threshold-high-ceiling' (LTHC) is adopted from Papert (1980) and is being increasingly used in the field of gifted education, notably in mathematics. The organisation NRIC⁷ is highly regarded for the provision of very helpful resources for

⁷ UK Mathematics Enrichment Centre, established in 1996. 'NRICH is a team of qualified teachers who are also practitioners in rich mathematical thinking. This unique blend means that NRIC is ideally placed to offer advice and support to both learners and teachers of mathematics. NRIC is directly and indirectly involved with educational policy makers. This means that we can offer informed guidance and practical advice about working in schools.' <https://nrich.maths.org/>

teachers who want to challenge all their pupils, from the less confident and novice learners to the more accomplished and experienced, and they prefer to keep everyone together in the classroom, avoiding pull-out activities for some. These types of activities allow for a whole group to work on the same task, taking things at their own level, but then come together to share ideas and experiences, which can be very motivating. Here is one example of a low-threshold-high-ceiling mathematics activity for young children:

Noah saw twelve legs walk by into the ark. How many creatures could he have seen? How many different answers can you find? Can you explain how you found out these answers? (NRICH.maths.org)

For this activity, the threshold is simply counting to twelve. Some children will stay with this level and find answers by playing with toy animals or using fingers or other counting materials. Other children will use addition, or multiplication and division, and others still may work out formulae for possible numbers of mammals versus birds or types of insects.

The complexity of philosophical concepts allows for tasks that can be significantly extended and deepened. In an enquiry with young children, it is unlikely that there will always be clear, fixed and absolute answers to tasks, although there will certainly be better or worse responses. The depth and scope of the philosophical enquiry depends therefore on the propensities, interests and abilities of the children involved, rather than a particular pre-determined external goal. So, with the careful choice of initial stimuli, gentle guidance or leadership from teachers, and appropriate management of the classroom space and groupings of children, it is feasible to provide low-threshold-high-ceiling work and so keep the whole class together.

There is a plethora of 'Finished Already?'-type books, activities and web resources for teachers of able children who struggle to find enough complex and interesting work for their high achieving able pupils. Philosophy offers relief in this regard by providing myriad topics with very high ceilings that can keep pupils gainfully engaged in discussion or other forms of investigation. As noted by NRICH:

LTHC tasks ... offer many possibilities for learners to focus on more sophisticated process skills rather than more knowledge. It's often mistakenly thought that the only way to challenge learners is to offer them content at a higher level; in LTHC tasks the content often remains quite simple but the level of thinking required can become very sophisticated. (McClure 2011, p. 1)

It is possible to pursue philosophical questions with little factual information, allowing young, or inexperienced learners with a lack of knowledge to engage fully, pursuing an

idea in depth without being encumbered with complex facts. That is not to say that the enquiry lacks complexity; engaging in the conceptual investigation still affords the opportunity for complex discussion. Engaging with matters such as 'whether zero is the same as nothing', 'whether the brain is the same as the mind', or 'whether the heart is the same as the soul' does not require detailed knowledge of mathematics, neuroscience or religion, but can still initiate complex and fascinating discussions.

In philosophy, therefore, it is possible to have complex discussions, without the need for in-depth facts (see Winstanley 2008 for further examples). In some instances, pupils' lack of knowledge or partial grasp of facts can even form the basis of the discussion as they challenge one another on explanations. Despite transcripts of children's discussions not serving as definitive evidence of children's philosophical abilities, short extracts can exemplify how they are able to slip into exploring some searching questions from a relatively low threshold of information. Consider this discussion among six-year-olds on a summer day-outing to a botanical garden. They had been observing bees returning to a display hive through a transparent tube and the facilitator had pointed out the yellow substance on the bees' legs, leaving the children to ponder what it could be. The children only had partial knowledge (at this stage of the visit) and so the discussion moved fairly swiftly from the empirical to the philosophical:

Child 1: The yellow is nectar. It's for making honey.

Child 2: I don't think it is. Nectar is the flower-drink and the yellow is the powder for the queen of the bees.

Child 1: Oh! Are you sure? Bees *are* busy. (Makes buzzing sounds) Busy-bees.

Child 3: Bees just work all the time. I would not like to be a bee.

Child 2: I would not like to be a bee. They are not happy to be bees because they always have to be busy. They aren't happy.

Child 1: (laughing) They aren't happy. They can't just have a day off from working can they? They can't go to the cinema! They can't just go off on their holidays!

Child 2: No, they can't do what they want; they have to follow the rules of the queen.

Child 1: The rules of the hive.

Child 2: The rules of the hive and the queen.

Child 3: The bee can't ever do what he wants to do. He can't be happy.

Child 2: He might be happy because he likes being busy, even if he didn't ask for it.

At this point, the teacher leading the group (who had been running philosophy sessions at school), highlighted the final statement from the third child and reiterated it as a question about people. The predominant focus of the visit was biology, or more formally, 'Understanding the World'⁸. However, the teacher picked up on the curiosity of the children and their interest in whether insects have any power to make choices in the same ways that humans can make choices. These three children were already firm friends, each with a propensity to turn many of their discussions towards this kind of thinking, and they continued to engage in an interesting conversation back at school in the following weeks, often touching on some philosophical themes which continued to blossom.

Philosophy can help foster positive personal qualities

Attention to the moral or ethical is frequently lacking in the critical thinking programmes so often used to provide additional challenge for the more able pupil or to identify and nurture talent. For example, in their 2014 International Baccalaureate Project concerned with 'Developing and Assessing Thinking Skills', Swartz and McGuinness reviewed sixteen different popular critical thinking skills programmes for school pupils. They list the 'theoretical orientation' of each programme and whilst several incorporate 'critical thinking', some include 'cognitive modifiability' and others, 'creative thinking', only two specifically mention 'caring'. This word was coupled with 'philosophical thinking' and attributed to work by Lipman: *Philosophy for Children* 1974; and Clegorn, Trickey and Topping: *Thinking through Philosophy* 2001 (Swartz & McGuinness 2014, pp. 90-92).

An increasing body of empirical evidence is being published showing the positive impact of philosophy on aspects of children's development. For example, in 2004, Trickey and Topping tentatively reported on their review of philosophy for children pedagogies, that

a wide range of evidence has been reported suggesting that, given certain conditions, children can gain significantly in measurable terms both academically and socially through this type of interactive process. (2004, p. 375)

⁸ 'Understanding the world involves guiding children to make sense of their physical world and their community through opportunities to explore, observe and find out about people, places, technology and the environment' (DfE 2017, p. 8).

More recent studies have identified positive impact on elements such as 'confidence to speak, listening skills and self-esteem' (Gorad et al. 2015, p. 32) and through these studies have raised questions for further research around non-intellective elements, such as 'confidence, well-being, and self-esteem' (Gorad et al. 2015, p. 33).

It would be wrong to suggest that philosophy is the only subject that can be turned to ethical matters, as it would be reductive to imply that ethical deliberation is the only significant aspect of philosophy with which children should be involved. However, some philosophical themes can be used to help foster positive personal qualities through developing moral understanding and discussing moral, immoral and amoral behaviours in a structured and reasoned fashion.

This opportunity that philosophy can afford, the opportunity to go beyond the intellectual, could be helpful in relation to working with more able children (Splitter 2007). In 21st century gifted education, development beyond the cognitive is a focus, as noted by Sternberg, in his Active Concerned Citizenship and Ethical Leadership (ACCEL) programme for the more able. With a particular focus on university students, Sternberg asserts that 'in addition to analytical, IQ-like skills, they also require creative, practical, wisdom-based, and ethical skills' (2017, p. 152). To help develop these aspects of personality and learning, children's own voices are increasingly being considered, through narrative and longitudinal projects. Contra some assumptions (reported in Treffinger 2009), able pupils' aims are 'not just connected to success when it comes to school achievements, but also success in life when defined as happiness and wellbeing' (Salmela & Uusiautti 2015, p. 132). In tandem with the shift of understanding high ability in a social context, again we see that more attention is being paid to the need for ethical programmes for more able pupils, rather than merely focusing on stimulating cognitive activities.

Given that issues of social justice and equity represent fundamental problems that we face in today's global world, concern for the common good ought to be considered an important dimension of gifted education. (Hernandez de Hahn 2014, p. 430)

The school community is an important and potentially meaningful context for the exercise of voice and social action. For young children it is the first introduction to public life and represents an unparalleled opportunity for learning and for personal and social development. (Haynes 2007, p. 236)

Philosophy is an obvious fit for this aim and, as Splitter notes, for such development, 'a disciplinary context which thrives on the interplay between rationality and the

emotions is particularly appropriate' (2007, p. 211). Haynes also recommends the pedagogy of philosophy as one that appears to 'hold clues as to the ingredients of [such] a restoration of intellectual, psychological and social freedom' (2007, p. 236). In her discussion of children participating in philosophical dialogue, Cassidy recounts the positive impact pupils report on their own lives, and the lives of others. In pursuing the nurturance of wise citizens who are able to live well, she suggests that 'they must, by necessity, take account of the other and think about how their living has a bearing on those around them' (Cassidy 2012, p. 262). Directly aimed at promoting ethical awareness, narrative ethical enquiry uses stories 'as sources of ethical content' (Robinson 2014, p. 15), with associated activities including reading, writing and telling. Robinson emphasises the importance of being guided and supported in this work:

It is only when these activities become critical and self conscious that their full potential is maximised ... This kind of critical, reflective discussion – familiar in a community of philosophical enquiry – is an ally of narrative ways of exploring ethics. (Robinson 2014, p. 15)

In philosophy, not only can the content of the philosophical dialogue be used to explore thorny ethical issues, but the pedagogies can be used to develop, model and practise valuable dispositions. When presenting and evaluating their own ideas, pupils learn when to defend their views, when to revise them, how to concede an error or point out a peer's illogical step. They learn 'open-mindedness, intellectual rigour, persistence and intellectual humility' (Splitter 2007, p. 210). Through critical engagement with others' ideas, they will become better at active listening, and learn to tailor their responses thoughtfully, considering how their classmate could improve an argument, for example.

Some tried and tested, but very simple practices can be used in order to smooth this process. Pupils are able to assert a disagreement or point out a fallacy without focusing on an individual, but by drawing attention to the argument by applying the rule where everyone starts each sentence by saying: 'I dis/agree with that point because ...'. This makes the agreement or disagreement less personal, allowing pupils to separate the person making the point from the idea they have raised. For all pupils, whether self-assured or less confident, this can be a very helpful tactic, providing a good way of asserting views, and a respectful way of arguing, both for the quiet pupils and for those whose voice might habitually be quite strident in general class discussions.

An additional, oblique benefit could also be the opportunity for the pupil with quirky or outlandish ideas to express themselves in a safe space, which can be of comfort to the more able pupil, particular if they are displaying atypical development. Some of the themes and directions of philosophical discussions can be unusual and those who are

more reticent and nervous of sharing odd notions, for fear of ridicule, are more likely to find their voice when the philosophic method commands and demands respectful listening and thoughtful responses (Winstanley 2008, p. 2010).

So, the power of using philosophy to develop an ethical dimension to learning and foster ethical characteristics depends largely on the pedagogical tactics employed by the teacher. Such development is not guaranteed with philosophy, but since ethical ideas and democratic strategies do not have to be uncomfortably shoe-horned into such lessons, developing these characteristics is certainly highly possible.

Conclusion

The nature of philosophy is such that it provides stimulating opportunities for pupils with a propensity towards abstract reasoning and dialogue. It also allows pupils who have not explored such activities to discover potential high abilities. For those researching in the controversial field of gifted education, philosophy can provide a partial solution to the quest for suitable activities for some pupils.

Education for gifted students should focus on the design of powerful learning environments that enable them to achieve through intensive practice and with appropriate support the highest possible level of adaptive competence in one or more domains of knowledge and/or skill. We should thus evolve toward a 'school without a ceiling' wherein gifted – but other students as well – can develop and go on as far as they can cope with. (De Corte 2013, p. 16)

Additionally, for those who are not persuaded that we should provide challenge for those pupils who say (or behave as if) they are unsatisfied with the common curriculum, philosophy can of course be harnessed to provide opportunities for all pupils to explore their own interests, capabilities and propensities. As with mathematics – and NRIC's take on low-threshold-high-ceiling tasks – we cannot say to what levels of complexity pupils will ascend if we do not allow them space to soar:

LTHC tasks ... allow learners to show what they can do, not what they can't. As teachers it's very easy to predict how well our learners will cope with a particular piece of mathematics, and sometimes that prediction can be a self-fulfilling prophecy. When the ceiling is raised it can be surprising what heights learners can achieve. (McClure 2011, p. 1)

It seems that undertaking philosophy in school has many advantages for a wide range of pupils. For a subset of pupils who require additional challenge, philosophy suits

them particularly well. Nothing else in the common curriculum comes close to providing the level of stimulation and depth of thinking they need, coupled with opportunities for a positive impact on ethical self-development.

References

- Ambrose, D, Sternberg, RJ & Sriraman, B (2012a) Considering the effects of dogmatism on giftedness and talent development. In & D Ambrose, RJ Sternberg & B Sriraman, (eds), *Confronting dogmatism in gifted education*, Routledge, New York, NY, pp. 5-10.
- Ambrose, D, Sternberg, RJ & Sriraman, B (2012b) *Confronting dogmatism in gifted education*. Routledge, New York, NY.
- Borland, JH (2012) Problematizing gifted education, Part I: Why problematize? *The Creativity Post*, March 17. Available from http://www.creativitypost.com/education/problematizing_gifted_education_part_i_why_problematize
- Borland, JH (2005) Gifted education without gifted children: The case for no conception of giftedness. In RJ Sternberg & JE Davidson (eds), *Conceptions of giftedness*. Cambridge University Press, Cambridge, pp.1-19.
- Brown, A (1987) Metacognition, executive control, self-regulation and other more mysterious mechanisms. In EE Weinert & RH Kluwe (eds), *Metacognition, motivation and understanding*. Erlbaum, Hillsdale, NJ, pp. 65-116.
- Cassidy, C (2012) Philosophy with children: Learning to live well. *Childhood and Philosophy*, 8(16), pp. 243-264.
- Chin, C & Brown, DE (2000) Learning in science: A comparison of deep and surface approaches. *Journal of Research in Science Teaching*, 37(2), pp. 109-38.
- Davey Chesters, S (2012) *Socratic classroom: Reflective thinking through collaborative inquiry*. Sense Publishers, Boston, MA.
- De Corte, E (2013) Giftedness considered from the perspective of research on learning and instruction. *High Ability Studies*, 24(1), pp. 3-19.
- DfE (2017) *Statutory framework for the early years foundation stage: Setting the standards for learning, development and care for children from birth to five*. Department for Education. Crown Copyright. Available from www.gov.uk/government/publications

- Flavell, JH (1979) Metacognition and cognitive monitoring: A new area of cognitive-developmental inquiry. *American Psychologist*, 34(10), pp. 906-911.
- Gallagher, J, Harradine, CC & Coleman, MR (1997) Challenge or boredom? Gifted students' views on their schooling. *Roeper Review*, 19(3), pp. 132-136.
- Gardner, S (1995) Inquiry is no mere conversation (or discussion or dialogue): Facilitation of inquiry is hard work! *Analytic Teaching and Philosophical Praxis*, 16(2), pp. 102-111.
- Gorard, S, Siddiqui, N & See, BH (2015) *Philosophy for Children: Evaluation report and executive summary*. Durham University and the Education Endowment Foundation, London. Available from https://v1.educationendowmentfoundation.org.uk/uploads/pdf/Philosophy_for_Children.pdf
- Haight, A (2014) Editorial. *International Studies in Sociology of Education*, 24(4), pp. 331-334.
- Hand, M & Winstanley, C (2008) Introduction. In M Hand & C Winstanley (eds) *Philosophy in schools*. Bloomsbury, London, pp. x-xviii.
- Haynes, J (2007) Freedom and the urge to think in Philosophy with Children. *Gifted Education International*, 22(3), pp. 229-237.
- Hernandez de Hahn, L (2014) Socially responsible citizens: Promoting gifts and talents that support social and humanitarian advancement. *International Studies in Sociology of Education*, 24(4), pp. 415-434.
- Howe, MJA (1990) Children's differing capabilities: Doubts about common sense explanations. *Gifted and Talented*, 1 (Summer), pp. 28-31.
- Kaufman, SB & Sternberg, R (2008) Conceptions of giftedness. In SI Pfeiffer (ed) *Handbook of giftedness in children: Psychoeducational theory, research, and best practices*. Springer, New York, NY, pp. 71-92.
- Kuhn, D (2000) Metacognitive development. *Current Directions in Psychological Science*, 9(5), pp. 178-181.
- Lipman, M (1991) *Thinking in education*. Cambridge University Press, Cambridge.
- Marton, F & Säljö, R (1976) On qualitative differences in learning. I: Outcome and process. *British Journal of Educational Psychology*, 46, pp. 4-11.
- Matthews, DJ & Dai, DY (2014) Gifted education: Changing conceptions, emphases and practice. *International Studies in Sociology of Education*, 24(4), pp. 335-353.

- McClure, L (2011) *Using low threshold high ceiling tasks in ordinary primary classrooms*. NRIC - Enriching Mathematics. Available from <https://nrich.maths.org/content/id/7701/LTHCArticle.pdf>
- Merry, MS (2008) Educational justice and the gifted. *Theory and Research in Education*, 6(1), pp. 47-70.
- Montgomery, D (ed) (2009) *Able, gifted and talented underachievers*. Wiley Blackwell, London.
- Papert, S (1980) *Mindstorms: Children, computers, and powerful ideas*. Basic Books, New York, NY.
- Robinson, GC (2014) You live and learn: Narrative in ethical enquiry with children. *Childhood and Philosophy*, 10(20), pp. 305-330.
- Salmela, M & Uusiautti, S (2015) A positive psychological viewpoint for success at school: Ten characteristic strengths of Finnish high-achieving students. *High Ability Studies*, 26(1), pp. 117-137.
- Scager, K, Akkerman, SF, Pilot, A & Wubbels, T (2013) How to persuade Honors students to go the extra mile: Creating a challenging learning environment. *High Ability Studies*, 24(2), pp. 115–134.
- Silverman, LK (2011) The moral sensitivity of gifted children and the evolution of society. *Roeper Review*, 17(2), pp. 110-116.
- Splitter, L (2007) Delving ever deeper: Gifted students and philosophy. *Gifted Education International*, 22(3), pp. 229-237.
- Sternberg, RJ (2017) Active Concerned Citizenship and Ethical Leadership (ACCEL): A new model for identifying the gifted. *Roeper Review*, 39(3), pp. 152-169.
- Sternberg, RJ & Davidson, JE (2005) *Conceptions of giftedness*. Cambridge University Press, Cambridge.
- Swartz, R & McGuinness, C (2014) *Developing and assessing thinking skills: The International Baccalaureate project 2014. Final Report - Part 1. Literature review and evaluation framework* International Baccalaureate Organisation. Available from <http://www.ibo.org/globalassets/publications/ib-research/continuum/student-thinking-skills-report-part-1.pdf>
- Treffinger, DJ (2009) Guest editorial. *Gifted Child Quarterly*, 53, pp. 229–232.
- Trickey S & Topping, K (2004) Philosophy for children. A systematic review. *Research Papers in Education*, 19(3), pp. 365-380.

- Van Tassel-Baska, J (2004) Quo Vadis? Laboring in the classical vineyards: An optimal challenge for gifted secondary students. *Journal of Secondary Gifted Education*, 15(2), pp. 56-60.
- Van Tassel-Baska, J & Brown, EF (2007) Toward best practice: An analysis of the efficacy of curriculum models in gifted education. *Gifted Child Quarterly*, 51(4), pp. 342-358.
- Wallace, B, Leyden, S, Montgomery, D, Winstanley, C, Pomerantz, M & Fitton, S (2010) *Raising the achievement of all pupils within an inclusive setting: Practical strategies for developing best practice*. Routledge, London.
- Whalley, MJ (1987) Unexamined lives: The case for philosophy in schools. *British Journal of Educational Studies*, 35(3), pp. 260-280.
- Winstanley, C (2004) *Too clever by half: A fair deal for gifted children*. Trentham Books, Staffs.
- Winstanley, C (2008) Philosophy and the development of critical thinking. In M Hand & C Winstanley (eds), *Philosophy in schools*. Bloomsbury, London, pp. 85-95.
- Winstanley, C (2010) *The ingredients of challenge*. Trentham Books, Staffs.