

# Can programmes like Philosophy for Children help schools to look beyond academic attainment?

Nadia Siddiqui <sup>a\*</sup>, Stephen Gorard <sup>b</sup> and Beng Huat See <sup>c</sup>

*School of Education, Leazes Road, Durham University, United Kingdom*

\*Corresponding author: Email: [nadia.siddiqui@durham.ac.uk](mailto:nadia.siddiqui@durham.ac.uk), orcid.org/0000-0003-4381-033X, @nadiasiddiqui22

<sup>b</sup> Email: [s.a.c.gorard@durham.ac.uk](mailto:s.a.c.gorard@durham.ac.uk), orcid.org/0000-0002-9381-5991, @SGorard

<sup>c</sup> Email: [b.h.see@durham.ac.uk](mailto:b.h.see@durham.ac.uk), @beng\_see

*Abstract:* Schools are places where children can learn behaviour, skills and attitudes that have lifelong relevance. In England, despite the continuing emphasis on attainment, there are clear moves to consider also the wider and non-cognitive outcomes of schooling – such as pupils’ development of trust, critical thinking and civic-mindedness. However, there is little existing evidence on how such non-cognitive outcomes can be improved through school-based interventions. This paper presents findings from a quasi-experimental design using 2,722 pupils in 42 primary schools. A treatment group of schools participated in Philosophy for Children (P4C) for 18 months, whereas the other group of schools was a clean ‘control’. The outcomes compared were pupil self-reports with an instrument designed to assess ‘social and communication skills’, ‘team work and resilience’ and ‘empathy’ and a number of other such constructs. Post-intervention comparisons show that pupils who received the P4C intervention were ahead of their counterparts in the comparison schools in many important respects, and this was generally more so for those pupils living in relative poverty (FSM-eligible). Teachers reported that positive effects could be observed in pupils’ confidence in questioning and reasoning, both in P4C sessions, and in other lessons, and pupils generally reported that they enjoyed the intervention. However, the differences are small, and it is not clear that the two groups were comparable at the outset. Therefore, the results need to be interpreted with considerable caution. Nevertheless, there is promise that targeted school-based intervention such as P4C can improve pupils’ non-cognitive outcomes, and there are lessons for how to conduct to such studies, and how to assess the wider outcomes of schooling.

Key words: Non-cognitive, Philosophy for Children, social and communication skills, team work, resilience, empathy

## Introduction

Schools are where children and young people learn how to interact with a wide range of peers and with the formal adult world. They are where pupils begin to see who they can trust, what society is like, and what they can contribute to it. Policy-makers have traditionally emphasised the economic benefits of education – for society and individuals. But education is also about the happiness of individuals, their preparedness for life other than work, and their general ‘flourishing’ (Brighouse 2008). Some studies have considered wider outcomes such as enjoyment, self-esteem or determination as merely stepping stones to higher attainment. However, this paper is primarily about taking these wider outcomes as valuable in their own right (whether they also lead to better test outcomes or not).

This new paper outlines the kinds of non-cognitive outcomes being considered, how they might be assessed, the role of schools in developing these outcomes, and how schools might be assisted in the implementation of evidence-based interventions. The paper describes the intervention, design and methods used in the evaluation of the non-cognitive outcomes of a programme called Philosophy for Children (P4C), before presenting results of the impact and process components of

our evaluation. The paper ends by describing the implications for future research, policy and practice.

While academic achievements may facilitate access to pathways of success in life, some commentators suggest that there are underlying attitudes and behaviours also influenced by education, which may be important in their own right (Heckman and Rubenstein 2001, Brunello and Schlotter 2011, Gupta and Simonsen 2010). The list of such personal qualities is long and could include social and communication skills, resilience, determination, motivation, confidence, self-esteem, and self-efficacy. Various collective terms are used in the literature such as non-cognitive outcomes, soft skills, personal characteristics, personality traits, life skills, social and emotional skills, and wider educational outcomes. For consistency and clarity, we use the term non-cognitive outcomes (of education). We are especially concerned with:

- Social and communication skills
- Resilience
- Empathy
- Fairness and justice
- Happiness and life at school

One concern should be to investigate through robust research if these outcomes can be improved through targeted school-based interventions, and another is to investigate the effective approaches that are feasible for implementation at national school level. So far there is little evidence regarding the efficacy and effectiveness of interventions and school-based programmes that directly target pupils' non-cognitive skills (Siddiqui and Ventista 2017).

*Can we directly address these wider outcomes?*

Emotional literacy interventions in early years of schooling have been found moderately effective for reducing children's aggressive, violent and anti-social behaviour (Durlak et al. 2011, Dunn et al. 1991). Programmes to sensitise children's attitudes and feelings towards emotions, feelings and situations of others can play an important role in overcoming the common challenges of children's disruptive behaviour, bullying, racism, aggression and violence towards peers and teachers. However, teachers' attitudes and sense of empathy towards pupils often gets ignored which perhaps is influential towards children's sense of self and others' respect and valuing the differences. Less than half of the surveyed children population fully agreed that that their teachers treat them fairly (The Good Childhood Report 2015).

Schools also have a growing concern to tackle the vaunted problem of extremism and radicalisation of young people. The common reasons for young people being vulnerable to extremist and ideologically motivated activities are sense of isolation, search for answers to question of identity, poor family relationship, experience of bullying and racism, and feeling of failure (Bailey 2015). Schools have been given recommendations to provide support to all children through raising awareness, promoting open and respectful dialogue and using the curriculum to challenge any extremist narrative. However, prevention approaches are now also recommended to tackle extremism such as raising young people's resilience so that they can cope with internal and external pressures that push towards violent extremism (Bonnell et al. 2010, Paterson et al.2014).

Fairness is an underlying principle for state-funded education. Creating a fair classroom means that teacher's appraisal should have a wider scope which is beyond academic and behavioural performance. The school system driven by the agenda of academic achievement encourages reward- based competition. Children achieving good academic results are often treated better, listened carefully, given good rewards and receiving less punishment. Studies have shown that teacher's conscious and unconscious bias, favouritism and unfair discrimination is highly prevalent in the teaching practices (Tymms 2015, Aydogan 2008, De Witt et al. 2000)

Children's disruptive or aggressive behaviour could be the outcome of unfairness that they encounter, where they are unable to understand and communicate their feelings over it (Hart et al. 2001, Chory-Assad 2002). Children are sensitive to differential treatment on the basis of their social class, ethnicity, and disability (Tenenbaum and Ruck 2007). Children not only demand fair and just treatment from others but they also need to experience a variety of models where fairness and justice are served. This includes school scenarios such as equal opportunities to speak (Corden 2000), teachers' appropriate respect for all children (Gorard and Smith 2010), appropriate feedback and encouragement (Burnett 2002), rewards for a wider set of skills and performance (Harlen 2006), freedom to choose tasks and times (Gorard 2011) and required emotional support (Protheroe 2007). Pro-social behaviour is only encouraged when children see it in adults, and learn to trust adults in schools on the basis of their fair treatment and just values. Existing evidence also shows that children's overall well-being is associated with fair and just treatment in schools (Pretsch et al 2015, Paulsel and Chory-Assad 2005).

Schools may be deficient in encouraging these qualities and somehow fail the broader purpose of education. So far, we have very limited knowledge about schools incorporating programmes for the development of non-cognitive outcomes. However, if the outcomes of school-based programmes for character building, higher aspirations, social cohesion, well-being and happiness can show a positive impact on pupils' life-long achievements then there is a need to revise curriculum by incorporating wider outcomes of schooling. There is a need to see education beyond the limit of academic attainment. The need is to design education systems where active social participation or citizenship is considered equally important as academic achievement.

## **Philosophy for Children in primary schools**

### *What is P4C?*

Philosophy for Children (P4C) is a school-based approach practised in the UK school for over twenty years, developed from the establishment of the Institute for the Advancement of Philosophy for Children (IAPC) in 1970. P4C has since become a worldwide educational approach, and something like it has been adopted by schools in 60 countries across the world, although the nature of the practice varies (Mercer et al. 1999). In the UK, the Society for the Advancement of Philosophical Enquiry and Reflection in Education (SAPERRE) was established in 1992 to promote the use of P4C in schools. P4C can be seen as part of a worldwide critical thinking movement in education that has brought changes to teaching approaches and the overall purpose of school education. There are various versions of the P4C approach and different names but all share the core ideas of promoting critical thinking, nurturing young people's curiosity, supporting them in using language of reasoning and argumentation and sharing views for better understanding.

The P4C intervention aims to help pupils to think logically, to voice their opinion, use appropriate language in argumentation, and listen to the views and opinions of others. P4C, as promoted by SAPERE, is a template to practice, and to organising a classroom session for philosophical enquiry. It does not have any specified materials or stimuli that must be used; there are only examples and suggestions. It may involve standard material for teaching such as a projector, board, pens or sheets of papers. The steps outlined in training are a guide to organising the classroom dialogue and can be used flexibly as the teacher's expertise grows. For example, the stages do not all need to be completed in one session. Choosing a question in one session and discussing it in another is a popular option. There is also the expectation for teachers to use existing curriculum material in their lessons when they judge it to have the potential to stimulate philosophical discussion and clarify key concepts in subject areas such as democracy, justice, nation, history, truth, cause, evidence, beauty, art, real, belief, knowledge, tolerance, and theory.

P4C has received criticism for its suggested lack of clarity in the measurement of objectives (Slade 1992), looseness in perceived understanding of P4C (Vansieleghem 2005), adaptability for achieving aims that can go against the fundamentals of free thought and inquiry, and not being a teaching subject where ‘real’ philosophy is taught (Hayes 2014, 2015, Kitchener 1990). The intervention has evolved over a period of time. There are various debates and conflicting views on the conceptual framework of this programme and the pedagogy of implementation. However, in the context of evaluation we are mainly concerned with the impact of this intervention on the educational and wider outcomes.

### *What is the prior evidence on P4C?*

In terms of academic improvement, an initial evaluation of the original scheme reported gains in logical reasoning and reading using a matched comparison design involving only 40 pupils from two schools (Lipman et al. 1980). One of the earliest studies in the UK was conducted by Williams (1993). This small study examined the effects of 27 one-hour P4C lessons (using Lipman’s materials) on reading comprehension, reasoning skills and intellectual confidence. Participants were 42 pupils from two Year 7 classes in one school. Results were obtained for only 32 children. Pre- and post-test comparison of reading comprehension using the London Reading Test showed that the P4C group made bigger gains than control pupils. And much of the evidence that has followed has also been reported as ‘positive’ but with weak designs, small scale and often high attrition.

Previous reviews have also suggested consistent small to medium effects of P4C on a range of outcome measures (Trickey and Topping 2004). One medium quality examination of the impact of dialogic discussion in a P4C tradition on writing and reading comprehension found no benefits in terms of post-intervention assessments (Reznitskaya 2012). A further reasonable quality study found subsequently also found gains in terms of CAT scores (Fair et al. 2015). And the results of the largest ever P4C trial, recently conducted in the UK, were promising in terms of Key Stage 2 maths and reading attainment, and slightly less so for CAT scores (Gorard et al. 2017a, 2017b).

Some previous studies have focussed on the non-cognitive benefits of P4C, sometimes in addition to academic attainment or CAT scores and sometimes on their own (Williams 1993, Trickey 2007, García-Morión et al. 2005, Tian and Liao 2016, Fair et al. 2015, Reznitskaya 2012). The Wiser Wales study by the Council for Education in World Citizenship tracked the impact of P4C across seven schools from 2009 to 2012 (Dyfed County Council 1994). The study reported improvements in pupils’ social skills, concentration, their ability to question. Prior research suggests that there may be numerous benefits from P4C including self-esteem (Sasseville 1994, Trickey and Topping 2004), self-concept and confidence (Williams 1993), participation in classrooms (Topping and Trickey 2007, Swain et al. 2013), interpersonal skills (Hedayati et al. 2009), social emotional behaviour (Colom et al. 2014), and motivation to learn, perhaps especially so for disadvantaged children (Creative Teaching and Learning 2015).

However, most of these studies are small-scale with weak designs, unaccounted-for pupil age differences and poor reporting of attrition. In summary, while there are signs of promise, not that much is really known about the impact of P4C on non-cognitive outcomes and so a much larger pilot trial of the kind we describe below was indicated.

### **Methods used in our new study**

The current study is a quasi-experimental evaluation of the non-cognitive outcomes of P4C. A total of 42 schools participated in the study. The schools were from diverse geographical regions of England, and each had a high proportion of disadvantaged pupils. Teachers from 16 schools received P4C training and support for implementing the intervention, following the protocol developed by Society for the Advancement of Philosophical and Reflection Enquiry (SAPERE).

The comparison group was formed of 26 schools, known not to have implemented P4C. This comparison was considered efficient in terms of the cost of evaluation because the comparison schools were already acting as a clean control as part of another project in which we were using the same non-cognitive survey items as used for P4C groups. A total of 2,722 pupils gave both pre- and post-intervention survey responses. Of these, 1,099 were in the P4C group and 1,623 in the comparison group. In terms of measures of disadvantaged, 502 pupils are known to be eligible for free school meals, of which 311 are in the P4C group and 191 in the comparison.

Pupils in the intervention group received P4C for nearly 18 months while those in the comparison schools continued business as usual. A pupil survey on non-cognitive outcomes was conducted at pre- and post intervention stages.

Table 1 summarises the timeline when the non-cognitive surveys were conducted in schools. This shows that the P4C group were six months younger, on average, when they did the first survey, although both groups were the same age for the second survey. This difference means that the headline findings are presented in this paper in terms of differences between the groups at the post-intervention survey. However, the pre-intervention scores and the ‘gains’ from pre- to post are also presented for completeness, and an adjustment is made where possible for the difference of six months in pupils’ age between the groups.

Table 1: Timeline events

	June 2014	December 2014	June 2015	June 2016
P4C Year 4		Pre-test Y4 start		Post-test Y5 end
P4C Year 5		Pre-test Y5 start		Post-test Y6 end
Comparator Year 4	Pre-test Y4 end		Post-test Y5 end	
Comparator Year 5	Pre-test Y5 end		Post-test Y6 end	

There was no school dropout from either group. Pupil drop-out from this study was mainly due to persistent absence, change to home schooling and pupils who have changed schools and area over this time period. The final analysis based on pupils with both pre- and post-intervention scores involved 968 in the treatment group (131 missing data) and 1,469 in the comparator (154 missing). The overall pupil drop-out rate is therefore 10% of the initial sample. A simple comparison of the pre-tests showed that there were no differences between the mean scores of drop-out students and those who completed the post-test. However, around 50% of the drop-out pupils were FSM-eligible.

*The survey design for non-cognitive outcomes*

The instrument consisted of 11 scaled attitude items, representing the best single question available from 11 established tests of psychological constructs such as self-confidence, determination, and well-being. The 11 items represent a wide range of behaviours, attitudes, emotions and feelings. The questions were developed in association with the Cabinet Office, and represent either the item with the single highest loading on that construct or the item recommended for single use by the test developers. For example, the item ‘I feel happy most days’ is about pupil’s happiness or well-being. Pupils self-report on a scale of 0 to 10 (0 identified as not at all true). The scale is wide to permit variation in responses, especially over time. Two of the items are randomly reverse-coded so that the socially desirable response would be 0 rather than 10. This is intended to encourage a focus on the meaning of each item.

The survey also included two vignettes with choice of three possible scenarios. Pupils had to select one of the three given options. The vignettes were about imaginary characters (children), and the choice of response statements were not right or wrong, but required a judgement based on empathy, or sense and value for democracy.

### *Methods of analysis*

We pre-selected two of the 11-point scale items as being particularly linked to the activities and aims of P4C. We did this to prevent the developers inadvertently focusing on items with favourable results, once the results were known. We have called these two items ‘social and communication skills’ and ‘team work and resilience’. The results for the two selected non-cognitive outcomes and for the two vignettes are, therefore, the headline findings for the study.

The results for the 11 scaled items are reported as ‘effect’ sizes at post-intervention stage. The effect sizes reported are the differences between the mean scores for the two groups divided by the overall standard deviation. The mean scores and standard deviations used for the reported effect size are for post-test conducted after 18 months of the intervention period. Gain scores are also presented for each group from pre- to post-intervention. Research studies have indicated that in the same cohort pupils’ age difference by months is relevant to their overall performance and non-cognitive skills (Bramley et al. 2015, Benton 2014, Gorard 2015). A recent analysis of Longitudinal Study of Young People in England (LSYPE) has shown that pupils born later in the academic year (July to August) are more likely to have lower scholastic competence (Crawford et al. 2013). The gain scores for the P4C group are adjusted by half of the gain score for the comparison group, to try and represent the six month age difference at pre-test. However, it must be stressed that this adjustment makes a number of assumptions that cannot be checked. And that is why we made the decision, before analysis, to use the post-intervention differences only for the headline effect sizes.

The results for the two vignettes are reported with effect sizes as odds ratios pre- and post-intervention. The odds ratios (ad-bc) are calculated on each occasion for the two groups, comparing the number of cases selecting one of the three options with the number picking either of the other two. In order to help communicate how secure (or insecure) each effect size is, we also present the number of counterfactual cases that would be needed to disturb each finding (Gorard and Gorard 2016).

We observed several P4C sessions in schools to achieve formative evidence on pupils’ development of non-cognitive characteristics and teachers’ response to implementation of P4C. We observed the delivery of the programme in the schools to assess the implementation challenges, and to get feedback from teachers and pupils on the perceived outcomes of P4C. Eight schools were selected for close observation. These schools agreed to our request to support us in collecting formative evidence at least two times in a year. We observed 16 P4C sessions and interviewed their teachers. The intention to re-visit the same schools at the end of the project was to observe the changes in the quality of P4C sessions, and to see whether the regularity of implementation was maintained.

## **Results from the impact evaluation**

### *The vignettes*

Table 2 shows that the responses of the two groups to the vignette about a struggling pupil are very similar at post-intervention. Around 40% of all pupils showed a sense of generosity/ empathy for a struggling pupil (.it is fair that the teacher should spend more time helping Jacintha, even if the other pupils have to wait) as compared to the other two options (2. Jacintha should work harder and 3. Jacintha should be taught in a separate class). This is in contrast to the pre-test where the comparison group reported similar results, but the younger P4C group had less empathy at that stage. Therefore, there is some slight evidence of an improvement for the P4C group.

Table 2: Vignette on empathy/generosity: Percentage agreeing and pre and post-intervention odds ratios, all pupils

	Pre- 'empathy'	Pre- 'Not- empathy'	Pre-Odds ratio	Post- 'empathy'	Post- 'Not- empathy'	Post-Odds ratio
P4C	31%	69%	0.67	38%	62%	0.80
Comparison	40%	60%	-	41%	59%	-

The results for FSM-eligible pupils at post-intervention show them more empathetic than the control. They also show an increase in the selection of the 'empathy' option over time (Table 3). Although both groups increased in terms of this response, the difference of six months between the groups at the pre-intervention survey cannot account for the difference in favour of the P4C group. These are therefore reasonably strong results.

Table 3: Vignette on empathy/generosity: Percentage agreeing and pre and post-intervention odds ratios, FSM-eligible pupils only

	Pre- 'empathy '	Pre- 'Not- empathy'	Pre-Odds ratio	Post- 'empathy'	Post- 'Not- empathy'	Post-Odds ratio
P4C	28%	72%	1.05	36%	64%	1.31
Comparison	27%	73%		30%	70%	-

The second vignette was on children's understanding and value for the democratic participation (...Three children are willing to become the leader. What is the fairest way of choosing the group leader?). The percentage of children picking the voting response (1. All children should vote to select the leader) increased noticeably after P4C as compared to the other two options (2. A teacher should choose the group leader and 3. A name should be blindly picked) (See table 4). Because the comparison group did not answer this question, it is not possible to conclude whether the result is a consequence of exposure to P4C or maturation in pupils' age or experience. However, P4C sessions involve pupils 'voting' to select questions for discussions so it is possible that by doing P4C regularly pupils come to understand the process of democracy and the value of voting better.

Table 4: 'Vote for a leader' vignette on democracy: Percentage pre and post-tests odds ratio, all pupils, and FSM eligible pupils

	'Vote for a leader'	'Not vote for a leader'	Odds ratio
P4C pre-test	45%	55%	1.2
P4C post-test	50%	50%	-
P4C pre-test FSM only	40%	60%	1.4
P4Cpost-test FSM only	49%	51%	-

#### *The attitude items*

The reported 'effect' sizes are based on post-intervention means and standard deviations because the two groups completed the pre-intervention tests at different points of time. Pupils in P4C group were six months younger than the counter parts at the pre-intervention test stage. However, post-intervention test was conducted for both the groups at the same time so there was no gap of months in age between the two groups. Post-intervention test scores are therefore appropriate to report the effect size. The pre-intervention scores are included for completeness, and as a caution showing the volatility of small 'effect' sizes under different assumptions. On the first headline indicator of impact – the self-reported response on communication with others – the P4C group are slightly ahead of the comparison group but were also ahead from the start (Table 5). We cannot tell whether the pre-intervention difference is solely due to the six-month difference in age at that

testing point (even though all indicators suggest a lowering of confidence in communication skills with age regardless of treatment group). This must reduce our trust in the scale of the post-intervention differences somewhat.

Table 5: Differences in social and communication skills, all pupils

I am good at explaining my ideas to other people	Pre-intervention mean	Standard deviation	Post-intervention mean	Standard deviation	Adjusted gain score	'Effect' size
P4C	6.42	2.81	6.25	2.58	-0.15	-
Comparison	6.03	2.64	6.00	2.29	-0.03	-
Total	6.19	2.72	6.10	2.41	-	0.10

Note: in all these tables the number of cases is P4C 968, comparison 1,469, total 2,437

The number of standard counterfactual cases needed to disturb this finding would be 97 (the smallest group times the effect size), which is smaller than pre- to post- intervention attrition. This must lead to further caution about the result. However, it is unclear if there is indeed any attrition where the effect size is post-test only.

The P4C group are considerably further ahead when considering only the disadvantaged pupils known to be eligible for FSM, and have again shown greater gains over time (Table 6). The number of standard counterfactual cases needed to disturb this finding would be 44, which is larger than pre- to post- intervention attrition for FSM-eligible pupils suggesting a somewhat stronger result.

Table 6: Differences in social and communication skills, FSM-eligible pupils only

I am good at explaining my ideas to other people	Pre-intervention mean	Standard deviation	Post-intervention mean	Standard deviation	Adjusted gain score	'Effect' size
P4C	6.37	2.84	6.22	2.49	-0.01	-
Comparison	5.92	2.68	5.65	2.43	-0.27	-
Total	6.05	2.77	5.92	2.47	-	0.23

A similar picture appears for the second headline indicator of impact – the self-reported response on ability to work with others (Tables 7 and 8). On post-test scores, the P4C group are ahead by a small amount, whether for all pupils or FSM-eligible pupils only. But again, the P4C were ahead at the outset anyway and this weakens our trust in the scale of the post-intervention differences.

Table 7: Differences in co-operation, teamwork and resilience, all pupils

I can work with someone who has different opinions to me	Pre-intervention mean	Standard deviation	Post-intervention mean	Standard deviation	Adjusted gain score	'Effect' size
P4C	7.26	3.03	7.16	2.77	+0.08	-
Comparison	6.51	3.12	6.75	2.76	-0.36	-
Total	6.81	3.11	6.91	2.77	-	0.15

Table 8: Overall post-test differences on cooperation, teamwork and resilience: FSM eligible pupils only

I can work with	Pre-	Standard	Post-	Standard	Adjusted	'Effect'
-----------------	------	----------	-------	----------	----------	----------



someone who has different opinions to me	intervention mean	deviation	intervention mean	deviation	gain score	size
P4C	7.18	3.19	6.92	2.88	-0.08	-
Comparison	6.25	3.48	6.61	2.75	+0.36	-
Total	6.55	3.38	6.75	2.82	-	0.11

Table 9 shows the overall results in terms of ‘effect’ sizes for all 11 scaled attitude items. The P4C group are ahead in terms of three items - representing communication, team work and resilience, and social responsibility. They are behind in terms of one – happiness. And the differences are +/- 0.05 or less on all other items. Considering only pupils known to be eligible for free school meals, the P4C group of disadvantaged pupils is ahead in terms of items representing communication and sociability, team work and resilience, self-confidence, social responsibility, and empathy. They are slightly ahead in terms of self-reported resilience, not being afraid to try new things, and feeling happy. There is almost no difference in terms of knowing where to get help, and the P4C group is behind in terms of wanting to be told what to do.

Table 9: Overall post-test differences on all 11 items, all pupils and FSM-eligible pupils

	Post-intervention ‘effect’ size, all pupils	Post-intervention ‘effect’ size, FSM-eligible pupils
<b>I am good at explaining my ideas to other people</b>	+0.10	+0.23
I like meeting new people	+0.05	+0.06
<b>I can work with someone who has different opinions to me</b>	+0.15	+0.11
<b>I can do most things if I try</b>	+0.04	+0.10
Once I have started a task I like to finish it	-0.02	+0.02
I want to try and make my local area a better place	+0.08	-0.03
I like to be told exactly what to do	-0.04	-0.03
I am often afraid to try to new things	-0.02	0
I feel happy most days	-0.09	-0.01
I try to understand other people’s problems	+0.01	+0.08
I know where to go for help with a problem	-0.02	+0.08

Note: The items in bold were selected as the outcomes before P4C implementation

As a feasibility study for assessing non-cognitive outcomes, the study shows some promise from P4C for areas like empathy, co-operation, and communication. This is perhaps especially the case for disadvantaged pupils as indicated by FSM-eligibility.

### Results from the formative evaluation

The P4C sessions observed in the eight schools we visited covered a wide range of skills and concepts.

The intervention is appealing to many schools as a way of raising and debating pupil-school discipline problems in an enquiry group. The school leads reported that they discussed the concepts of bullying, racism, lying and cheating, equality and fairness which are core issues of school discipline and ethos. P4C was reported by the teachers to be very helpful in thinking critically about these issues, raising questions, reflecting on experiences and coming to fair conclusions. P4C

creates an opportunity for school leads to engage with pupils and develop a whole school culture of thinking, listening, speaking and arguing. Some of the examples of questions discussed in P4C observed sessions were as follows:

- Is it acceptable for people to wear their religious symbols at work places?
- Are people's physical looks more important than their actions?
- What is kindness?
- Can you and should you stop free thought?
- Is it OK to deprive someone of their freedom?
- Why one needs to have a family?
- If you look different does it mean you are also different from inside?
- If you are wealthy, will you always have a good life?

This list of questions, and many others, was created by pupils themselves from a given stimulus such as a story or short video, using a blind voting system. The substance of these questions is clearly relevant to the broader purpose of schools.

There were some clear challenges to the delivery and implementation of P4C. The main challenge reported by teachers and school leaders was the difficulty of embedding P4C in the fully-packed timetable and with targets for literacy and numeracy from the National Curriculum. Teachers reported that there is often not enough time to be regularly devoted to P4C when there are so many other activities going on. P4C is particularly focused on underlying key concepts such as 'knowledge' and 'belief'. Deep discussion of these kinds of foundational concepts is often not seen by as so important a part of subject teaching as the learning of subject content.

#### *Social and communication skills*

Apparent improvement in pupils' social and communication skills were observed and commented by several P4C teachers. The teachers' views about the relationship between P4C and social and communication skills may give an in-depth understanding of the impact results (above).

A teacher reported in the interview that P4C sessions are the opportunity for her and the class to learn and practice listening skills which otherwise gets neglected. In another interview a teacher said that listening to each other in P4C has helped pupils learning to build their own arguments. Other teachers commented:

I think it had helped lots of children with listening to each other and the relationship with any learning partner.

Children given more time to talk without me talking as much, and more time to listen to each other.

I think P4C has really helped the children to be aware of each other and the views that other people have that may conflict with their own. Their listening and reflecting skills have improved as a whole.

Children ask deeper questions and are beginning to listen more attentively.

The children in class are more willing to reason with each other and listen carefully before jumping in and talking over each other.

Children seem to listen to one another's points of view after a disagreement.

The children use the words I agree and I disagree, and listen carefully to each other. They often follow on from each other and ask each other questions.

There is a real emphasis that children need to learn to listen to each other more, asking more questions and starting to ask why things occur etc... Communication is definitely the key to understanding each other which might improve relationships in a forever changing world that we live in.

### *Respect and behaviour*

Teachers reported a wide range of behavioural outcomes as a positive impact of P4C. These were noticed within P4C settings during the circle of enquiry, in more general classroom settings as well as during play time:

The children in class are more willing to reason with each other and listen carefully before jumping in and talking over each other.

We have noticed a fall in the number of behavioural incident forms being submitted, suggesting a fall in the number of incidences of poor behaviour. We think this is because the children are now more able to communicate with each other.

Children seem less likely to squabble at play times. The occasions of telling tales has decreased a lot.

Children deal with conflict resolution in a mature and grown up way and think about actions after an argument.

The children are able to articulate more about how they feel and feel confident to disagree without it being seen as a cause for quarrelling.

The teachers reported an important change in pupils' behaviour in response to arguments. Pupils were thought to be becoming more respectful of different opinions:

Children aren't afraid to question each other, or refer back to someone else's point from earlier on in any lesson. Children are confident to challenge me, the teacher, without being disrespectful or rude.

The children in class are more willing to reason with each other and listen carefully before jumping in and talking over each other.

Children have become more accepting of the different opinions within the group. One SEN pupil, who is a very good speaker, seems to have gained more respect from his peers as he is often vocal and persuasive in our debates.

More respectful of each other now.

P4C promotes the practice of valuing differing views and opinions. The initial stages of setting P4C rules are mainly about embedding the concept of effective communication practice in the circle of enquiry. This includes setting the codes of behaviour such as waiting for a turn to speak, valuing an individual's opinion by listening carefully, and the use of language for disagreement. The teachers have attributed positive changes in pupils' behaviour to P4C practice. Improvement in pupils' respect and behaviour are related with pupils' social and communication skills, cooperation, team work and resilience. Improvements in such non-cognitive outcomes are reflected in the impact evaluation results.

### *Improvement in reasoning and thinking skills*

Many teachers also reported improvements in pupils' thinking skills. One stated that P4C makes pupils think out of the box and see different perspectives of one thing. Another reported that allowing pupils some time to reflect is often neglected, and P4C is the time where she thought pupils get time to practice reflection. Teachers gave the following comments on the association between P4C and thinking skills:

It has given the children room to investigate different situations in a different way.

Children ask questions that involve reasoning in more of a logical way.

It has helped children appreciate other may think differently from themselves - and that this is ok!

Children are able to develop their thinking further, sometimes allowing themselves to change their minds.

Better learning community. Greater thinking skill and ability to understand that not all questions have a right answer.

Children ask deeper questions and are beginning to listen more attentively.

Children are now more able to accept others' alternate viewpoints, without viewing these as criticism of themselves.

It gives children an opportunity to see teacher in a different light.

In general, P4C sessions were observed to be very different from ordinary primary classroom settings, and to involve a different communication practice between teachers and pupils. Pupils were observed in the P4C sessions to have a certain level of excitement in discussion and voting for the questions. Many pupils commented on this in our interviews with them:

I really enjoy P4C because I love to share my feelings in class because I feel my classmates and teacher will listen to me. I also enjoy looking at videos because we get to talk about things together.

Sometimes you talk about things you had always wanted to let out.

You can always express your feeling and you can never get judged or bullied for what you think.

I like to hear people's opinions and problems.

I like sitting in a circle and hearing different ideas and other things about other people's life and what they get up to on school holidays, I also love talking about things that you can have a debate and discuss it.

P4C is a great opportunity to share our feelings and share the things that are troubling us. I also enjoy talking about things happening around the world.

The pupils also reported that sharing opinions helped them in building ideas:

P4C is a good lesson because you get to share your feelings and what could happen in life and what can't. I like P4C because you can talk about what is true or false.

We can say our own opinions on what we think and the teacher helps us we also build on each other's opinions. And after school I go home and speak to my parents about the things that we done in P4C

I like P4C because you can say any think [*sic*] you like.

I enjoy doing P4C because I like to do different stuff on each day, and I like to talk in different groups and I like to share my ideas to the class.

Some pupils mentioned their reluctance to share feelings publicly, or that they were sometimes upset by the topics:

I don't really like P4C that much because I don't really like talking so I get really bored when other people talk. But I like it when people talk about nice things.

I do not like listening to other peoples' ideas for a long time!

I don't like sharing my ideas in case people don't agree. In a way I do like P4C because I like listening to others points of review.

It is boring things to talk about and we sometimes say personal things.

It upsets me sometimes and I like it sometimes because I can learn about different things.

I get to share my opinion with other people and I like doing it with Miss\*\*\* and sometimes I get a little sad.

The pupils' views show that they are not all the same in terms of sharing ideas, talking and willingness to participate in the discussions. Some pupils are naturally quiet but keen on listening others, whilst some get bored easily when they have to listen to others. It is perhaps part of the process of learning through dialogue that pupils would sometimes become anxious about conflicting perspective. A crucial role for the teachers is to ensure that challenging issues are covered, but that they do not lead to distress.

In general the P4C sessions depends on the teacher's preparation for the session, enthusiasm to conduct the enquiry regularly, willingness to accept challenging arguments from pupils, and being aware of personal bias and readiness to accept justifications against personal beliefs and choices. Teachers and pupils perceived several benefits such as social and communication skills, respect for others, and enjoyment.

P4C sessions were observed to be very different from ordinary primary classroom settings. They involve a different format of communication between teachers and pupils. Many of the pupils interviewed talked about how P4C gave them the opportunity to express themselves:

I really enjoy P4C because I love to share my feelings in class because I feel my classmates and teacher will listen to me. I also enjoy looking at videos because we get to talk about things together.

You can always express your feeling and you can never get judged or bullied for what you think.

P4C is a great opportunity to share our feelings and share the things that are troubling us. I also enjoy talking about things happening around the world.

On the other hand, there were some pupils who were reticent about sharing their feelings publicly. Some said they were by the topics:

I don't really like P4C that much because I don't really like talking so I get really bored when other people talk. But I like it when people talk about nice things.

I don't like sharing my ideas in case people don't agree. In a way I do like P4C because I like listening to others points of view.

I get to share my opinion with other people and I like doing it with Miss\*\*\* and sometimes I get a little sad.

One of the biggest challenges to implementing the programme was finding regular gaps in school schedules to be devoted to P4C. Schools are given the flexibility in how to incorporate, P4C in their curriculum. Many integrated P4C in subjects like History, English and PSHE. However, due to other curriculum activities and events such as OFSTED inspections, it was not always possible to maintain the regularity recommended by SAPERE (which is one lesson per week). A senior management team leader also reported that the national assessment system requires schools to achieve literacy and numeracy targets and unless those targets are directly addressed, curriculum time cannot be devoted to outside the curriculum. There was sometimes a tension between the school research lead and the other staff. Two of the 16 schools could not continue P4C on a full and regular basis because of changes in staff and school conversion into academies. In the schools where P4C was observed to be fully embedded, the senior leaders were found actively engaged with teachers and P4C trainers.

## **Discussion**

### *Limitations of the study*

This was a cost-effective independent evaluation, using existing groups of schools for a comparison that involved no artificial allocation to treatment or not. All of the schools did what they would have been doing anyway. We are certain that the comparison schools have not undertaken the P4C intervention. It was a large study involving 42 schools and 2,437 pupils, with no school dropout and relatively low loss of pupil data.

The design for this study, making use of the waiting-list schools from one randomised study and the control schools from another, was convenient, cost-effective and permitted a larger sample size than otherwise. It is also clearly a better design than a simple cross-section or a before and after design. However, it is not ideal for a causal question such as that addressed in this paper. This study is a quasi-experiment and the findings positively contribute towards the existing evidence on the feasibility of P4C implementation in the school settings.

Non-cognitive outcomes are intrinsically hard to assess, even though the instrument has been developed from standardised items and tested in several prior trials. The responses are self-reported by pupils regarding their attitudes, choices and feelings and this limitation is always a barrier in the assessment of non-cognitive outcomes. The use of reverse-coded items was intended to make pupils focus, and the vignette items were developed to prevent pupils simply picking a point towards the most socially desirable end of any scale. The post-intervention surveys were conducted at the same point in the school year, for children of equivalent year groups, in both analytical groups for the evaluation. The pre-intervention surveys were completed about six months apart in

the school year for the treatment and comparison groups. An adjustment has been made for this, but the most trustworthy results are for the post-intervention scores only.

The prior scores from the survey for both groups were largely incompatible, having been collected by the differing projects with a six-month age gap. Both the post-intervention and the adjusted gain scores are presented. All of these factors must reduce our reliance on the results to some extent.

The results from formative evaluation shows that a wide range of non-cognitive outcomes were attributed to the implementation of P4C. It is not clear if all change in pupils' attitude and behaviour are the result of the intervention. However, it seemed that the teachers were aware of the need to address wider-outcomes of school education. There is a need to develop better ways of assessment for non-cognitive outcomes and provide robust evidence on interventions that can be implemented in school settings without having any negative effect on pupils' academic attainment.

### *Implications for research*

The use of vignettes in this study, providing stories with multiple responses that overcome the social demands of a scale with a clearly desirable end point, has been promising. The vignettes were first used by and reported in Gorard and Smith (2010), and have now been completed by over 50,000 pupils in 10 countries around the world. We have developed further vignettes on democracy, trust in others, and religious diversity, as part of this project. They were piloted and we will be using these in future projects. We recommend other researchers consider this approach either instead of or in addition to the more usual psychometric scaling.

The second realistic approach was suggested by the process evaluation for this study. Teachers reported that children became more responsive to each other, and that some individuals who had previously kept quiet in class became more communicative. Some teachers reported that pupils were using the language and structures of argumentation, as learnt via P4C, in other subjects at schools. These and other claims could be assessed more rigorously in a randomised control trial. A schedule of observation would be developed for researchers to record these kinds of pupil behavior for control and intervention group, at the outset and once the trial was ended. These and other approaches would give more secure knowledge of the extent to which non-cognitive or at least behavioural outcomes at school had really changed.

It is also important to investigate the long term impact of P4C on pupils' future success, career paths and well-being in adult life. This would be possible by tracking the children over time to secondary school and comparing them with the rest of their cohort. A particular focus on the life outcomes of disadvantaged pupils would give further insight into the impact of P4C on this group.

### *Implications for policy and practice*

There is indication that pupils' non-cognitive outcomes can be improved through school-based interventions. The evidence need to develop further with regards to inter-dependency of non-cognitive skills. There is still a gap in research evidence that needs to establish a causal link between non-cognitive and academic outcomes. If interventions for the improvement of non-cognitive outcomes can yield better academic outcomes in addition, then there is a scope for integrating these interventions in the national curriculum and most importantly using the pupil premium funds in implementing these interventions.

From the repeated evaluations of P4C we have gathered the results showing persistent, small and positive effects of this intervention. We can firmly say that this approach does not harm children in the achievement of academic outcomes or improvement of non-cognitive skills. The resources and curriculum time used for the implementation of P4C at least does not prevent pupils from learning. The schools can implement P4C or something similar on a regular basis as there is some promise of improvement at little cost.

The current study shows that pupils' attitudes and learning can be shaped through dialogic interaction. A group of pupils with different social backgrounds, ethnicities, abilities and aptitudes would be effective for all pupils' learning from each other. It is rather useful if pupils become aware in their school years that the world outside school has these differences and are ready to encounter these differences in effective ways. It is important that for P4C to be effective it has to be a whole-school approach so that all individuals concerned are aware of the aims and objectives of P4C in cultivating empathy, respect and appropriate or acceptable behaviour. For example, to teach children fairness, teachers themselves have to be seen to be fair. To teach children to be polite, teachers and other (older) pupils have to practise it.

Schools have various opportunities for children to develop pupils' non-cognitive skills. However, there is a need to adopt effective and structured approaches to address the pupils' development and improvement of non-cognitive outcomes. This study implies that pupils' social emotional behaviour, cooperation, resilience and ability to empathise with others can be changed by adopting structured approaches such as P4C. Regular implementation of P4C programme can show gradual improvement in pupils' behaviour and this programme is feasible for integration in the school curriculum – especially as it does not detract from KS2 scores in core subjects and may even enhance them.

Schools target pupils' attainment through several approaches and interventions and the alignment of school curriculum and activities are largely in favour of academic outcomes. This research emphasises the need for developing space in the school curriculum where the focus is the development of pupils' character and values. This report presents the findings that a structured classroom inquiry and dialogue can support pupils in learning through listening different perspectives and developing positive attitudes such as empathy, cooperation and resilience. This is found more so effective for pupils on disadvantaged measures without separating them from the mainstream group. In academic improvement interventions the struggling pupils are often segregated which could have negative impact on disadvantaged pupils' confidence, self-esteem and relationship with peers. P4C is whole group approach where the differences are addressed through dialogue and communication. This emphasises the need for curriculum time, resources, activities and staff efforts to be devoted to non-cognitive outcomes of education.

The overall findings of this research contribute to the ongoing concern about the purpose of schools in the society and how far it is possible to make schools meaningful and effective for the most disadvantaged groups. The schools are accounted for transferring the knowledge and skills for literacy and numeracy to pupils. These academic achievement objectives so far define the major part of schooling and the national curriculum. The need is to build evidence on approaches that can address the targets for academic achievements and support pupils towards improvement of non-cognitive characteristics or wider outcomes of education as well.

## References

- Aydogan, I. 2008. "Favoritism in the classroom: A study on Turkish schools." *Journal of Instructional Psychology* 35(2): 159-169 (<http://files.eric.ed.gov/fulltext/ED502815.pdf>)
- Bailey, P.2015. "Guidance for Working with Children and Young People who are vulnerable to the messages of Radicalisation and Extremism: London Borough of Merton." *Merton Safeguarding Children Board*. ([http://www.merton.gov.uk/mscb\\_prevent\\_guidance\\_final.pdf](http://www.merton.gov.uk/mscb_prevent_guidance_final.pdf))
- Benton, T. 2011. "Sticks and Stones May Break My Bones But Being Left on My Own is Worse: An Analysis of Reported Bullying at School Within NFER Attitude Surveys." *National Foundation for Educational Research* (<https://www.nfer.ac.uk/publications/ASUR01/ASUR01.pdf>)



- Benton, T. 2014. Should we age-standardise GCSEs? Cambridge Assessment Research Report. (<http://www.cambridgeassessment.org.uk/Images/285155-should-we-age-standardise-gcses-.pdf>)
- Bonnell, J., Copestake, P., Kerr, D., Passy, R., Reed, C., Salter, R., Sarwar, S. and Sheikh, S. 2011. "Teaching approaches that help to build resilience to extremism among young people." *Department for Education (DFE): Research Report DFE-RR119*. ([https://www.gov.uk/government/uploads/system/uploads/attachment\\_data/file/182675/DFE-RR119.pdf](https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/182675/DFE-RR119.pdf))
- Bramley, T., Rodeiro, C. and Vitello, S. 2015. "Gender differences at GCSE." *Cambridge Assessment Research Report*. (<http://www.cambridgeassessment.org.uk/Images/gender-differences-at-gcse-report.pdf>)
- Brighouse, H. 2008. "Education for a Flourishing Life." *Yearbook of the National Society for the Study of Education* 107, (1): 58–71. DOI: 10.1111/j.1744-7984.2008.00130.x
- Brunello, G. and Schlotter, M. 2011. "Non-Cognitive Skills and Personality Traits: Labour Market Relevance and Their Development in Education and Training Systems." *IZA Discussion Paper* No. 5743. (SSRN:<http://ssrn.com/abstract=1858066>)
- Burnett, P. 1999. "Children's Self-Talk and Academic Self-Concepts: The impact of teachers' statements." *Educational Psychology in Practice* 15(3): 195-200.
- Campbell, J. 2002. "An evaluation of a pilot intervention involving teaching philosophy to upper primary children in two primary schools, using the Philosophy for Children methodology." PhD thesis: University of Dundee
- Chory-Assad, R. 2002. "Classroom justice: Perceptions of fairness as a predictor of student motivation, learning, and aggression." *Communication Quarterly* 50(1): 58-77
- Colom, R., Moriyón, F., Magro, C. and Morilla, E. 2014. "The Long-term Impact of Philosophy for Children: A Longitudinal Study (Preliminary Results)" *Analytic Teaching and Philosophical Praxis*, 35, 1
- Corden, R. 2000. *Literacy and learning through talk: Strategies for the primary classroom*. McGraw-Hill Education (UK)
- Crawford, C., Dearden, L. and Greaves, E. 2013. "When you are born matters: evidence for England." London: *Institute for Fiscal Studies* (<https://www.econstor.eu/handle/10419/83505>)
- Creative Teaching and Learning. 2016. Closing the achievement gap with P4C. <http://www.jamesnottingham.co.uk/media/2344/closing-the-achievement-gap-with-P4C.pdf>
- Department for Education. 2012. "A profile of pupil exclusions in England." *Research Report DFE-RR190* ([https://www.gov.uk/government/uploads/system/uploads/attachment\\_data/file/183498/DFE-RR190.pdf](https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/183498/DFE-RR190.pdf))
- Department for Education. 2015. "Children looked after in England including adoption: 2014 to 2015." <https://www.gov.uk/government/statistics/children-looked-after-in-england-including-adoption-2014-to-2015>
- DeWitt, D., Offord, D., Sanford, M., Rye, B., Shain, M. and Wright, R. 2000. "The effect of school culture on adolescent behavioural problems: self-esteem, attachment to learning, and peer approval of deviance as mediating mechanisms." *Canadian Journal of School Psychology* 16(1), 15-38
- Dunn J., Brown J., Slomkowski C., Tesla, C. and Youngblade L. 1991. "Young children's understanding of the other people's feelings and beliefs: Individual differences and their antecedents." *Child Development* 62: 1352-1366
- Durlak, J., Weissberg, R., Dymnicki, A., Taylor, R. and Schellinger, K. 2011. "The impact of enhancing students' social and emotional learning: A meta-analysis of school-based universal interventions." *Child Development* 82(1): 405-432
- Dyfed County Council .1994. "Improving Reading Standards in Primary Schools Project," *Dyfed County Council, Wales*
- Fair, F., Haas, L., Gardosik, C., Johnson, D., Price, D. and Leipnik, O. 2015. "Socrates in the schools: Gains at three-year follow-up," *Journal of Philosophy in Schools* 2(2): 5-16

- García-Moriyón, F., Rebollo, I. and Colom, R. 2005. "Evaluating Philosophy for Children." *Thinking: The Journal of Philosophy for Children* 17(4): 14-22
- Gorard, S. 2011. "The potential determinants of young people's sense of justice: an international study" *British Journal of Sociology of Education* 32(1): 35-52
- Gorard, S. 2015. Helping August's child. *New Scientist* 228(3043): 28-29
- Gorard, S. and Gorard, J. 2016. "What to do instead of significance testing? Calculating the 'number of counterfactual cases needed to disturb a finding,'" *International Journal of Social Research Methodology*, 19, 4, 481-489
- Gorard, S. and Smith, E. 2010. *Equity in Education: an international comparison of pupil perspectives*. London: Palgrave Macmillan
- Gorard, S., See, BH and Davies, P. 2011. *Do attitudes and aspirations matter in education?: A review of the research evidence*. Saarbrücken: Lambert Academic Publishing
- Gorard, S., See, BH and Siddiqui, N. 2017b. "What works and what fails? Evidence from seven popular literacy catch-up schemes for the transition to secondary school in England," *Research Papers in Education* 1-23 <http://dx.doi.org/10.1080/02671522.2016.1225811>
- Gorard, S., Siddiqui, N. & See, B.H. 2017. "Can 'Philosophy for Children' improve primary school attainment?" *Journal of Philosophy of Education* 51(1): 5-22.
- Gutman, L. and Schoon, I. 2013. "The impact of non-cognitive skills on outcomes for young people. " *Education Endowment Foundation*. ([http://educationendowmentfoundation.org.uk/uploads/pdf/Non-cognitive\\_skills\\_literature\\_review.pdf](http://educationendowmentfoundation.org.uk/uploads/pdf/Non-cognitive_skills_literature_review.pdf).)
- Harlen, W. 2006. "The role of teachers in the assessment of learning." *Pamphlet produced by the Assessment Systems for the Future projects (ASF) Assessment Reform group, UK*, 347-364
- Hart, S. 2001. *Children's rights in education* (Vol. 11), Jessica Kingsley Publishers
- Hayes, D. 2014. Can kids do Kant? The Conversation. (Available at <https://theconversation.com/cankids-do-kant-22623>) (Last seen on 12<sup>th</sup> August 2016).
- Hayes, D. 2015. Philosophy for Children isn't real philosophy. Available at: <http://www.spikedonline.com/newsite/article/philosophy-for-children-isnt-real-philosophy/17193#.V63HQ1srJpg> (Last seen on 12th August 2016)
- Heckman, J., and Rubinstein, Y. 2001. "The importance of non-cognitive skills: Lessons from the GED testing program." *American Economic Review*: 145-149
- Hedayati, M. and Ghaedi, Y. 2009. "Effects of the Philosophy for Children Program through the Community of Inquiry method on the improvement of interpersonal relationship skills in primary school students" *Childhood & Philosophy* 5(9): 199-217
- Humphrey, N., Lendrum, A. and Wigelsworth, M. 2010. "Social and emotional aspects of learning (SEAL) programme in secondary schools: National Evaluation" London: DfE (<http://dera.ioe.ac.uk/11567/1/DFE-RR049.pdf>)
- Kitchener, R. F. 1990. Do children think philosophically? *Metaphilosophy*, 21(4): 416-431.
- Lipman, M., Sharp, A. & Oscanyan, F. 1980. "Philosophy in the classroom." *Philadelphia, PA*: Temple University Press.
- Mercer, N., Wegerif R. and Dawes, L. 1999. "Children's talk and the development of reasoning in the classroom." *British Educational Research Journal* 25(1): 95-111
- Patalay, P., Fink, E., Fonagy, P. and Deighton, J. 2016. "Unpacking the associations between heterogeneous externalising symptom development and academic attainment in middle childhood." *European child and adolescent psychiatry* 25(5): 493-500
- Paterson, C., Tyler, C. and Lexmond, J. 2014. *Character and resilience manifesto. All party parliamentary group on Social Mobility*, (<http://www.educationengland.org.uk/documents/pdfs/2014-appg-social-mobility.pdf>.)
- Paulsel, M. and Chory-Assad, R. 2005. "Perceptions of instructor interactional justice as a predictor of student resistance." *Communication Research Reports* 22(4): 283-291
- Pretsch, J., Ehrhardt, N., Engl, L., Risch, B., Roth, J., Schumacher, S. and Schmitt, M. 2016. "Injustice in school and students' emotions, well-being, and behavior: A longitudinal study." *Social Justice Research* 29(1): 119-138
- Protheroe, N. 2007. "Emotional Support and Student Learning." *Principal* 86(4): 50-54
- Reznitskaya, A. 2012. "Dialogic teaching: Rethinking language use during literature discussions." *The Reading Teacher* 65(7): 446-456

- Sasseville, M. 1994. Self-esteem, logical skills and philosophy for children. *Thinking*, 4 (2) :30–32
- Siddiqui, N. and Ventista, O. 2017. “A Review of School-Based Interventions for the Improvement of Non-Cognitive Skills” (Under review)
- Slade, C. 1992. Creative and Critical Thinking: An Evaluation of Philosophy for Children. *Analytic Teaching*, 13(1): 25-36.
- Swain, J., Cara, O. and Litster, J. .2013. “Doing philosophy in schools: An evaluation report.” *Institute of Education, University of London.* ([https://www.philosophy-foundation.org/asset/download/416.](https://www.philosophy-foundation.org/asset/download/416))
- Tenenbaum, H. and Ruck, M. 2007. “Are teachers' expectations different for racial minority than for European American students?” A meta-analysis. *Journal of educational psychology* 99(2): 253
- The Good Childhood Report. 2015. “The subjective well-being of children in the UK.” *The Children's Society*, London. (<https://www.childrensociety.org.uk/sites/default/files/TheGoodChildhoodReport2015.pdf>)
- Tian, S. and Liao, P. 2016. “Philosophy for children with learners of English as a foreign language.” *Journal of Philosophy in Schools*, 3(1) (<http://www.ojs.unisa.edu.au/index.php/jps/article/view/1299>)
- Topping, K. and Trickey, S. 2007. “Impact of philosophical enquiry on school students' interactive behaviour.” *Thinking Skills and Creativity* 2(2): 73-84
- Trickey, S. 2007. “Promoting social and cognitive development in schools: An evaluation of Thinking through Philosophy in The 13th International Conference on Thinking Norrkoping.” Sweden June 17-21,2007, Linkopings: *University Electronic Conference Proceedings.* (<http://www.ep.liu.se/ecp/021/vol1/026?ecp2107026.pdf>)
- Trickey, S. and Topping K. 2004. “Philosophy for Children: A Systematic review.” *Research Papers in Education* 19(3): 363-378
- Trickey, S., and Topping, K. 2007. “Collaborative Philosophical Enquiry for School Children.” *Thinking: The Journal of Philosophy for Children* 18(3): 25-36
- Tymms, P. “Teachers show bias to pupils who share their personality.” *The Conversation*, 25<sup>th</sup> February 2015 (<https://theconversation.com/teachers-show-bias-to-pupils-who-share-their-personality-38018>)
- Vansieleghem, N. 2005. Philosophy for Children as the Wind of Thinking, *Journal of Philosophy of Education*, 39(1): 19-35
- Williams, S. 1993. *Evaluating the Effects of Philosophical Enquiry in a Secondary School.* Derbyshire, England: Derbyshire County Council