

Current Research on Cognitive and Social/Emotional Skills Philosophy with Young People

Pons, Francisco, Marta Giménez-Dasí, Marie-France Daniel, Emmanuèle Auriac-Slusarczyk, Nicoletta Businaro, and Karine Viana. 2019. "Impact of a Classroom Dialogue-based Intervention on Preschool Children's Emotion Understanding." *European Early Childhood Education Research Journal* 27 (5): 630-646. <https://doi.org/10.1080/1350293X.2019.1651961> .

Children's emotional understanding has emerged as one of the best predictors of their psychological well-being, pro-social competences and school achievement. The main goal of this study was to evaluate for the first time the impact of an easy-to-use and not time-consuming classroom dialogue-based intervention (a) on preschool children's understanding of both simple and complex components of emotions and (b) on the range of individual differences in children's understanding of emotions. Participants were 112 typical 5-year-old children attending 10 different preschools in Canada and France. They were divided into an intervention group (N = 55, 7 classrooms) and a control group (N = 57, 7 classrooms). The intervention, The Tales of Audrey-Anne, lasted over 8-9 months (15 h in total) and was conducted in the classroom by the children's habitual teachers without previous training in using the intervention. Children were assessed before and after the intervention for their emotion understanding with the Test of Emotion Comprehension (TEC). Four results were found. First, the intervention had a positive impact on children's both overall and specific levels of emotion understanding. Second, it did not change the hierarchical order of the specific levels (i.e., external, mental and reflective). Third, it did not have an impact on the range of individual differences (considerable both before and after the intervention). Fourth, it had a positive impact on the longitudinal stability of these differences (much smaller for the children in the experimental group after the intervention). These findings are discussed in terms of the theoretical and applied implications.

Siddiqui, Nadia, Stephen Gorard, and Beng Huat See. 2019. "Can Programmes like Philosophy for Children Help Schools to Look Beyond Academic Attainment?" *Educational Review* 71 (2): 146-165. <https://doi.org/10.1080/00131911.2017.1400948>

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 2722 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," "teamwork 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, 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, 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. Nevertheless, there is promise that targeted school-based interventions such as P4C can improve pupils' non-cognitive outcomes, and there are lessons for how to conduct such studies and how to assess the wider outcomes of schooling.

Daniel, Marie-France, Karima Belghiti, and Emmanuèle Auriac-Slusarczyk. 2017. "Philosophy for Children and the Incidence of Teachers' Questions on the Mobilization of Dialogical Critical Thinking in Pupils." *Creative Education* 8(6): 870-892.
http://file.scirp.org/pdf/CE_2017052516171051.pdf

More and more, education programs from many countries consider Critical Thinking (CT) to be an essential 21st century competency. Our conception of CT corresponds to a socio-constructivist epistemology and the context of our research is situated in the Philosophy for Children approach. This text presents a study, in which we compared results from two exchanges, one which was conducted with closed anecdotal-type questions, and the other with open philosophically-oriented questions. The analysis tool was the operational model of the developmental process of Dialogical Critical Thinking (DCT), developed and validated in previous studies. Participants were five groups of Moroccan pupils aged 10 to 15 years. Results indicate that in the exchange conducted with closed anecdotal-type questions, the overall epistemology of groups of pupils aged 10 to 15 years was simple, and the dominant epistemological perspective was post-egocentricity. In the exchange conducted with open philosophically-oriented questions, the overall epistemology for the majority of pupil groups was simple with a tendency toward a complex epistemology, and the dominant perspective for the majority of groups was relativism.

Makaiau, Amber Strong. 2017. "Using a Philosopher's Pedagogy to Teach School Subjects: The Case of Ethnic Studies at Kailua High School." *Journal of Philosophy in Schools* 4 (1): 4-26.

This article examines the impact of using a philosopher's pedagogy to teach school subjects (Lewis & Sutcliffe 2017) through the case study of Ethnic Studies at Kailua High School. Conducted in a multicultural setting, the participants in the study are 89 high school students and data comes from their course assignments. A constructivist approach to grounded theory methods is used to analyze data. Findings reveal how two facets of the philosopher's pedagogy helped engage students and positively impact their personal and academic development. They are: (1) the seven-part inquiry process and (2) the community of inquiry. In the article's conclusion, using the philosopher's pedagogy to teach Ethnic Studies is presented as an important means for developing student engagement and carrying out the aims of multicultural, culturally responsive, and social justice approaches to schooling.

Gorard, Stephen, Nadia Siddiqui. and Beng Huat See. 2017. "Can 'Philosophy for Children' Improve Primary School Attainment?" *Journal of Philosophy of Education* 51 (1): 5-22.

There are tensions within formal education between imparting knowledge and the development of skills for handling that knowledge. In the primary school sector, the latter can also be squeezed out of the curriculum by a focus on basic skills such as literacy and numeracy. What happens when an explicit attempt is made to develop young children's reasoning—both in terms of their apparent cognitive abilities and their basic skills? This paper reports an independent evaluation of an in-class intervention called 'Philosophy for Children' (P4C), after just over one year of schooling. The intervention aims to help children become more willing and able to question, reason, construct arguments and collaborate with others. A group of 48 volunteer schools were randomized to receive P4C (22 schools) or act as a control for one year (26). This paper reports the CAT results for all pupils in years 4 and 5 initially, and the Key Stage 2 attainment in English and Maths for those starting in year 5. There was no school dropout. Individual attrition from a total of 3,159 pupils was around 11 percent—roughly equal between groups. There were small positive 'effect' sizes in favour of the P4C group in progress in reading (+0.12) and maths (+0.10), and even smaller perhaps negligible improvements in CAT scores (+0.07) and writing (+0.03). The results for the most disadvantaged (free school eligible) pupils were larger for attainment (+0.29 in reading, +0.17 writing and +0.20 maths), but not for CATs (-0.02). Observations and interviews suggest that the intervention was generally enjoyable and thought to be beneficial for pupil confidence. Our conclusion is that, for those wishing to improve attainment outcomes in the short term, an emphasis on developing reasoning is promising, especially for the poorest students, but perhaps not the most effective way forward. However, for those who value reasoning for its own sake, this evaluation demonstrates that using curriculum time in this way does not damage attainment (and may well enhance it and reduce the poverty gradient in attainment), and so suggests that something like P4C is an appropriate educational approach.

Topping, Keith and Steven Trickey. 2014. "The Role of Dialog in Philosophy for Children." *International Journal of Educational Research* 63: 69-78. ISSN 0883-0355.

Philosophy for Children (P4C) stems from the work of Mathew Lipman. It involves teacher modeling of exploratory talk in relation to a complex stimulus, then has students discuss together in pairs, larger groups, and the whole class to achieve consensus. The effects of P4C on quantity and quality of interactive dialog on 180 10-year-old children in primary (elementary) mainstream classes in Scotland were investigated. Video recordings of teacher-led and pupil-pupil classroom dialog before, and seven months into, participation in the program were analyzed. Changes in intervention classes included: increased use of open-ended questions by the teacher, increased participation of pupils in classroom dialog, and improved pupil reasoning in justification of opinions. There were no changes in comparison classes. Increases were found in the amount of teacher-student dialog and the amount of student-student dialog, with decreases in the amount of teacher-whole-class talk. This study found gains in cognition, which were sustained from elementary school into high school even when no further P4C was done. Socio-emotional aspects of learning also improved. Investigation of process found changes in teacher behavior and child behavior. Implications for future research, policy and practice are outlined, particularly for enhancing consistency and expanding the program.

Colom, Roberto, Félix García Moriyón, Carmen Magro, and Elena Morilla. 2014. "The Long-term Impact of Philosophy for Children: A Longitudinal Study (Preliminary Results)." *Analytic Teaching and Philosophical Practice* 35 (1): 50-56.

Twenty years ago, the European School of Madrid (ESM) began to implement P4C. Félix García Moriyón trained a group of teachers through an intensive workshop and Elena Morilla coordinated the whole process thereafter. P4C was integrated within the regular curriculum and students attended one class per week since primary school (6 years of age) to the end of high school (18 years of age). After obtaining informed consent from both the school staff and the students' families, a longitudinal study began in 2002 for investigating the presumed lasting positive impact of P4C over cognitive and non-cognitive factors, and also over academic achievement. To the best of our knowledge this research is unique because there is only one long-term study (Malmhester, 1996) and the remaining research was made in the short-term (one year or less) (García & Cebas, 2004). So far we have been following more than 400 students in the treatment group (P4C) and more than 300 students in a control group. As required, both groups shared closely similar social and cultural backgrounds: both are private schools in a small village, mainly residential, 18 km and 32 km away from Madrid, same highway A-6, etc. Students came from middle-upper class families, and middle-upper social and cultural status. We recruited six cohorts from the P4C school and five cohorts from the control school across the years. Data were collected at three time points: 2nd grade (8 years), 6th grade (11-12 years), and 4th grade of secondary school (16 years). The administered measures tapped cognitive abilities (IGF and EFAI), basic personality traits (EPQ), and academic achievement (school grades and standardized tests). This research tests the hypothesis that "IF P4C improves cognitive and non-cognitive basic psychological traits, THEN the treatment group will show greater scores in the standardized measures of both psychological factors". Here we present a summary of the evidence accumulated in the past 10 years. These were the main results: (1) P4C promotes an average advantage of half a standard deviation in general cognitive ability (≈ 7 IQ points), (2) the average advantage is especially noteworthy in the lowest tail of the cognitive distribution across the years, (3) lower percentages of participants in the training group can be found at the risk area, and (4) P4C children are more prone to pro-social behavior, but they are also a bit more emotionally unstable.

Giménez Dasí, Marta, Laura Quintanilla, and Marie-France Daniel. 2013. "Improving Emotion Comprehension and Social Skills in Early Childhood through Philosophy for Children." *Childhood & Philosophy* 9 (17): 63-89.

The relationship between emotion comprehension and social competence from very young ages has been addressed in numerous studies in the field of developmental psychology. Emotion knowledge in childhood seems to have its roots in the conversations and explanations children hear about what emotions are and how to manage them. Given that behavioral interventions often do not achieve medium-term improvements or generalization to other contexts, this study evaluates the results of an intervention using the Thinking Emotions program. This program uses Philosophy for Children (P4C) as the work format and is based on the idea that reflection and dialogue among peers is one of the most effective ways to interiorize significant knowledge. The program was applied during one school year in two

preschool classrooms (one class of 4-year-olds and one class of 5-year-olds). Comparisons of the pre- and post-treatment measures of the control (N=28) and experimental (N=32) groups show significant improvements in emotion comprehension and social competence in the 5-year-old children and improvements related to social competence in the 4-year-olds.

Reznitskaya, Alina and Monica Glina. 2013. "Comparing Student Experiences with Story Discussions in Dialogic Versus Traditional Settings." *The Journal of Educational Research* 106 (1): 49-63.

The authors examined the testimonials of 60 elementary school students about their experience during class discussions of assigned readings. They randomly assigned 12 classrooms to 2 treatments: Philosophy for Children (P4C) and Regular Instruction. P4C is an alternative educational environment that places dialogue at the center of its pedagogy. Ten students from each classroom were interviewed. According to the results, significantly more P4C students stated that they enjoyed expressing disagreement with peers, taking on new responsibilities, and explaining their thinking to others. More P4C students complained about the difficulties with getting the floor to speak, and suggested that changes are needed to better balance group participation. The authors discuss these findings and suggest implications for research and teaching.

Reznitskaya, Alina, Monica Glina, Brian Carolan, Olivier Michaud, Jon Rogers, and Lavina Sequeira. 2012. "Examining Transfer Effects from Dialogic Discussions to New Tasks and Contexts." *Contemporary Educational Psychology* 37 (4): 288-306.

This study investigated whether students who engage in inquiry dialogue with others improve their performance on various tasks measuring argumentation development. The study used an educational environment called Philosophy for Children (P4C) to examine specific theoretical assumptions regarding the role dialogic interaction plays in the development of individual argumentation. Using quasi-experimental research design, we randomly assigned 12 fifth-grade classrooms to two treatment conditions: P4C and Regular Instruction (REG). To document treatment fidelity, we analyzed 36 systematically selected discussion transcripts focusing on various features of classroom discourse. To evaluate transfer performance, we administered 3 post-intervention measures, including an interview, a persuasive essay, and a recall of argumentative text. Our results confirm that there were important differences in discourse patterns that indicate that P4C students engaged in more dialogic interactions, compared to REG students. However, although P4C students had different classroom experience, they performed similarly to the Regular Instruction students on post-intervention measures. We discuss the lack of positive transfer and suggest directions for further research.

Millett, Stephan and Alan Tapper. 2012. "Benefits of Collaborative Philosophical Inquiry in Schools." *Educational Philosophy and Theory* 44 (5): 546-567.

In the past decade well-designed research studies have shown that the practice of collaborative philosophical inquiry in schools can have marked cognitive and social benefits. Student academic performance improves, and so too does the social dimension of schooling. These findings are timely, as many countries in Asia and the Pacific are now contemplating introducing Philosophy into their curricula. This paper gives a brief history of collaborative philosophical inquiry before surveying the evidence as to its effectiveness. The evidence is canvassed under two categories: schooling and thinking skills; and schooling, socialisation and values. In both categories there is clear evidence that even short-term teaching of collaborative philosophical inquiry has marked positive effects on students. The paper concludes with suggestions for further research and a final claim that the presently available research evidence is strong enough to warrant implementing collaborative philosophical inquiry as part of a long-term policy.

Chi-Ming Lam. 2012. "Continuing Lipman's and Sharp's Pioneering Work on Philosophy for Children: Using *Harry* to Foster Critical Thinking in Hong Kong Students." *Educational Research and Evaluation* 18 (2): 187-203.

This article reports the results of the first systematic, though only exploratory, study that assesses the effectiveness of the Philosophy for Children (commonly known as P4C) programme in promoting children's critical thinking in Hong Kong. Forty-two Secondary 1 students volunteered for this study, from whom 28 students were randomly selected and randomly assigned to 2 groups of 14 each: one receiving P4C lessons and the other receiving English lessons. The students who were taught P4C were found to show a greater improvement in the reasoning test performance than those who were not, to be capable of doing philosophy, and to have a positive attitude towards doing philosophy in the classroom. It was also found that P4C played a major role in developing the students' critical thinking, and that 10 crucial factors contributed to the success of the P4C programme.

Daniel, Marie-France and Mathieu Gagnon. 2012. "Pupils' Age and Philosophical Praxis: Two Factors that Influence the Development of Critical Thinking in Children." *Childhood & Philosophy* 8 (15): 105-130.

One of the fundamental objectives of Philosophy for Children (P4C) is the cognitive development of elementary and secondary school pupils. In this text, we examine to what extent the age of the children and the number of years of praxis in P4C influence the development of their critical thinking. To do so we used, as an analysis grid, the model of the developmental process of dialogical critical thinking that emerged from the analysis of transcripts of exchanges among pupils aged 4 to 12 years (Daniel et al., 2005; Daniel & Gagnon, 2011). The content analyzed was the "philosophical" exchanges among pupils. Participants were 13 groups of pupils from preschool to the end of elementary school. These groups originated from two schools, one in Quebec and one in Ontario. At the time the data were collected, the Quebec school groups had one year of P4C praxis, whereas the Ontario school groups had two years of praxis. Results indicate that children's age and number of years of philosophical praxis are among the factors that influence the developmental process of critical thinking.

Gillies, Robyn M., Kim Nichols, and Gilbert Burgh. 2011. "Promoting Problem-solving and Reasoning During Cooperative Inquiry Science." *Teaching Education* 22 (4): 427-443. <https://doi.org/10.1080/10476210.2011.610448>

This paper reports on a study that was conducted on the effects of training students in specific strategic and meta-cognitive questioning strategies on the development of reasoning, problem-solving, and learning during cooperative inquiry-based science activities. The study was conducted in 18 sixth grade classrooms and involved 35 groups of students in three conditions: the cognitive questioning condition; the Philosophy for Children condition; and the comparison condition. The students were videotaped as they worked on a specific inquiry-science task once each term for two consecutive school terms. The results show that the students in all conditions demonstrated more helping discourses or discourses known to mediate learning than any other of the discourse categories. This outcome is encouraging because it is the helping discourses where students provide explanations, elaborations, and reasons that promote follow-up learning.

Jenkins, Philip and Sue Lyle. 2010. "Enacting Dialogue: The Impact of Promoting Philosophy for Children on the Literate Thinking of Identified Poor Readers, Aged 10." *Language and Education* 24 (6): 459-472. <https://doi.org/10.1080/09500782.2010.495781>

The Philosophy for Children in Schools Project (P4CISP) is a research project to monitor and evaluate the impact of Philosophy for Children (P4C) on classroom practices. In this paper the impact of P4C on the thinking skills of four children aged 10 is examined. Standardised tests indicated the children had below-average reading ages. The pupils were video recorded while engaged in discussion of questions they formulated themselves in response to a series of texts in preparation for a community of philosophical enquiry. Group discussions were analysed, paying attention to verbal and non-verbal communication. We argue that reading scores do not necessarily indicate inability to engage in

literate thinking. When dialogic approaches are used and pupils are given opportunities to work in small groups to formulate their own questions and evaluate their potential for generating enquiry, they demonstrate their ability to use higher-order language skills. Dialogic approaches can challenge the hegemonic impact of standardised testing that dominates modern schooling. A dialogic approach to teaching listens to pupil voice and has the potential to change how adults view children and contribute to an epistemological paradigm shift away from positivism towards dialogism.

Hedayati, Mehrnoosh and Yahya Ghaedi. 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.

To investigate the effect of community of inquiry method on improvement of interpersonal relationship skills, based on Matthew Lipman's theory and practice, an experiment was designed and conducted in Tehran among primary school students of third, fourth and fifth grades. 190 students (97 boys and 93 girls) were randomly selected and assigned to experimental and control group (88 experimental, 102 control). The experimental group was taught based on community of inquiry methodology for twelve ninety-minute sessions. Interpersonal relationship skills were measured by Ardly & Asher's questionnaire. Results show that means of both experimental and control group on the pre-test didn't have any significant difference. But, the results of pre-test and post-test of both experimental and control group indicated that the mean of post-test scores of experimental group in relation to pre-test in interpersonal relationship skills increased, while the mean of the control group remained the same in the post-test, and the mean of the experimental group in the post-test was higher than the mean of the control group. In order to investigate the persistence of the treatment effect, the students were rechecked after 4 months, and the results appeared to be stable. Therefore, this semi-experimental study has shown that the community of inquiry method has positively affected interpersonal relationship skills in the experimental group of children, with effects that continued for at least 4 months after the treatment.

Millett, Stephan and Sheila Flanagan. 2007. "Philosophy in the Talented Year 8 Classroom: Improving Thinking (and a lot more) through Philosophical Inquiry. *TalentEd* 25 (1): 1-10.

Teaching philosophy through a community of inquiry to Year 8 students in an Academic Talent Program has proved to be an effective way of engaging students in their learning and of helping them learn strategies in higher-order thinking that they can use at school, at home or in the community. This article presents a brief overview of a two-term study of talented students in a state high school in Perth.

Topping, Keith and Steven Trickey. 2007. "Collaborative Philosophical Enquiry for School Children: Cognitive Effects at 10–12 Years." *British Journal of Educational Psychology* 77 (2): 271–288. <https://doi.org/10.1348/000709906x105328>

Background. Debates about the modifiability of cognitive ability have been largely resolved by reports of successful 'thinking skills' interventions. However, such interventions are very diverse and generalization of effects relatively little explored. **Aims.** This study investigated whether a thinking skills intervention involving collaborative interactive dialogue could lead not only to gains in measured verbal cognitive ability but also generalization to non-verbal and quantitative reasoning ability. **Sample.** Randomly selected intervention children were aged 10 at pre-test (N = 105, four classes/schools). Controls followed a normal curriculum (N = 72, three classes/two schools). **Method.** Intervention children engaged in collaborative enquiry for 1 hour per week over 16 months. The control group received normal classroom experiences. The Cognitive Abilities Test was administered before and after the intervention. **Results.** Intervention pupils showed significant standardized gains in verbal and also in non-verbal and quantitative aspects of reasoning, consistent across intervention schools. Boys and girls made significant gains. The highest quartile of pre-test ability showed the smallest gains. Controls did not gain in any aspect. **Conclusions.** Philosophical enquiry involving interactive dialogue led not only to significant gains in measured verbal cognitive ability but also generalization to non-verbal and quantitative reasoning ability, consistent across schools and largely irrespective of pupil gender and ability. The effect sizes from this large-scale field trial in one local authority exceeded those reported in the literature. Implications for theory building, replicability and sustainability are addressed.

Topping, Keith and Steven Trickey. 2007. "Collaborative Philosophical Inquiry for School Children: Cognitive Gains at 2-Year Follow-Up." *British Journal of Educational Psychology* 77 (4): 787-796. <https://doi.org/10.1348/000709907X193032>

Debates about the modifiability of cognitive ability have been largely resolved by reports of successful 'thinking skills' interventions. However, such interventions are very diverse and generalization of effects relatively little explored. This study investigated whether a thinking skills intervention involving collaborative interactive dialogue could lead not only to gains in measured verbal cognitive ability but also generalization to non-verbal and quantitative reasoning ability. Randomly selected intervention children were aged 10 at pre-test (N = 105, four classes/schools). Controls followed a normal curriculum (N = 72, three classes/two schools). Intervention children engaged in collaborative enquiry for 1 hour per week over 16 months. The control group received normal classroom experiences. The Cognitive Abilities Test was administered before and after the intervention. Intervention pupils showed significant standardized gains in verbal and also in non-verbal and quantitative aspects of reasoning, consistent across intervention schools. Boys and girls made significant gains. The highest quartile of pre-test ability showed the smallest gains. Controls did not gain in any aspect. Philosophical enquiry involving interactive dialogue led not only to significant gains in measured verbal cognitive ability but also generalization to non-verbal and quantitative reasoning ability, consistent across schools and largely irrespective of pupil gender and ability. The effect sizes from this large-scale field trial in one local authority exceeded those reported in the literature. Implications for theory building, replicability and sustainability are addressed.

Trickey, Steven and Keith Topping. 2006. "Collaborative Philosophical Enquiry for School Children: Socio-Emotional Effects at 11 to 12 Years." *School Psychology International* 27 (5): 599-614.

Two measures were used to investigate the socioemotional effects of collaborative philosophical enquiry on children aged 11 at pre-test in five experimental and three control primary (elementary) school mainstream classes. Experimental teachers received initial and follow-up professional development. In a pre-post controlled design, experimental pupils used collaborative enquiry for one hour each week over a seven-month inter-test period. Control pupils followed a normal curriculum. On a test of self-esteem as a learner, experimental pupils (n = 119) gained significantly while controls (n = 52) did not. There was evidence of significant reduction in dependency and anxiety and of greater self-confidence. Girls tended to gain more than boys. These results were fairly consistent across schools/classes. On a scale for teacher observation of pupil social skills in problematic situations, a random sample of experimental pupils (n = 25) gained no more than controls (n = 22) overall. However, these results showed considerable variation across schools/classes. Implications for future research, practice and policy are addressed.

Daniel, Marie-France and Alain Delsol. 2006. "Learning to Dialogue in Kindergarten: A Case Study." *Analytic Teaching* 25(3): 23-52.

This text presents an experiment with 5-year-old Quebec kindergarten children who experienced the Philosophy for Children (P4C) approach for the first time. The experiment was short-term, lasting from mid-February to mid-May. Its objective was to study preschool-aged children's capacity to dialogue. The questions that oriented our research were: *When guided by an adequate philosophical approach, are 5-year-old kindergarten children able to dialogue (dia-logos) with their peers? Can they be critical? What is the teacher's role in the development of children's communicative actions?* Two types of analyses, stemming from a two-part theoretical framework, were used to answer these questions. The first part refers to Habermas' criteria, and the second to a typology of exchanges among peers proposed by Daniel and colleagues.

Daniel, Marie-France, Louise Lafortune, Richard Pallascio, Laurance Splitter, Christina Slade, and Teresa de la Garza. 2005. "Modeling the Development Process of Dialogical Critical Thinking in Pupils Aged 10 to 12 Years." *Communication Education* 54(4): 334-354. <https://doi.org/10.1080/03634520500442194>

This research project investigated manifestations of critical thinking in pupils 10 to 12 years of age during their group discussions held in the context of Philosophy for Children Adapted to Mathematics. The objective of the research project was to examine, through the pupils' discussions, the development of dialogical critical thinking processes. The research was conducted during an entire school year. The research method was based on the Grounded Theory approach; the material used consisted of transcripts of verbal exchanges among the pupils (at the beginning, middle and end of the school year). Analysis of the transcripts revealed that: (1) critical thinking appears to the extent that a 'dialogue' is established among pupils; (2) on the cognitive level, dialogical critical thinking is comprised of four thinking modes: logical, creative, responsible and meta-cognitive; and (3) on the epistemological level, dialogical critical thinking is only manifested in a context where egocentricity of perspective and relativism of beliefs are transcended.

Lizarraga, M. Louisa Sanz de Acedo, M. Dolores Ugarte, M. Dolores Iriarte, and M. Teresa Sanz de Acedo Baquedano. 2003. "Immediate and Long-term Effects of a Cognitive Intervention on Intelligence, Self-regulation, and Academic Achievement." *European Journal of Psychology of Education* 18 (1): 59-74.

The main purpose of this study was to evaluate the effects of a package of activities, known as "Portfolio", on cognitive functioning, self-regulation, and academic achievement. The study was carried out with a group of 40 students from Compulsory Secondary Education (mean age 13 years old) during 12 hours distributed over two school years. A quasi-experimental pretest-posttest-1 and posttest-2 design was employed. Treatment consisted of the administration of specifically selected tasks, assessed in previous studies, from the psycho-pedagogical Instrumental Enrichment Program, the Philosophy for Children Program, and Project Intelligence. The students were evaluated in the criteria variables at the beginning and at the end of treatment, and once again two years later. The results indicate that the procedure was effective in all the variables studied and that gains observed at posttest-1 were maintained for at least two years after the intervention. Some relevant conclusions and suggestions at the educational and scientific level are commented upon.

Russell, Josephine. 2002. "Moral Consciousness in a Community of Inquiry." *Journal of Moral Education* 31(2): 141-153. <https://doi.org/10.1080/03057240220143250>

In this qualitative research study moral consciousness was examined in a chosen sample of two groups of children, aged 7-8 and 11-12 years, respectively. An emergent research design was used, which meant analyzing the data continually so that significant meanings could emerge in the process. What was important in the study could not be predetermined, but evolved from the categories of meaning that I derived inductively from the data. The results show that children have a strong moral sense and this is fostered in a "Philosophy with Children" type of community of inquiry. As participants in a community of inquiry, they grappled with issues of fairness, responsibility, choice and the value of human life. Gender differences were evident in how fairness and responsibility were perceived. Differences were also obvious in how older and younger children defined friendship and approached a topic. The research findings indicate that the interactive dialogue process helped the children to develop skills to deduce, infer, clarify, make connections, distinctions and generalizations. In listening to and respecting others they exhibited an ability to reciprocate which is central to moral judgment and action. This seemed to be deepened in the ongoing course of the dialogues. A defining feature of the inquiries was the collaborative search for truth.

Fields, Joyce. 1995. "Empirical Data Research into the Claims for Using Philosophy Techniques with Young Children." *Early Child Development and Care* 107(1): 115-128. <https://doi.org/10.1080/0300443951070113>

This article presents, in two parts, some of the findings of a two-year empirical data study into the claims of effectiveness of using teaching materials embedded in traditional Socratic dialogue techniques. The aim of the study was to ascertain whether, after undergoing a philosophy programme based on the materials outlined below, young

children could be emergent philosophers. And if so whether there were any significant changes in children's academic achievement, and reasoning skills (measured by an array of tests such as the New Jersey Reasoning Test Form B and the WISC-R component for reasoning). The results will be divided into two distinct yet complimentary sections. The first part will be a statement and discussion of significant academic achievement results. The second part will be an analysis of some of the video or audio taped dialogue by the children involved illustrating that young children are emergent philosophers.