

Philosophical ethics in early childhood: A pilot study

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Abstract¹

The Philosophical Ethics in Early Childhood (PEECh) project aims to advance knowledge of preschool children's (ages 3-5) ethical understanding and explores the effectiveness of philosophical discussion of children's literature and extension activities for fostering ethical development in early childhood. In this article we discuss results of our ethics education study with preschool children, including pre-post measurement of experimental and control groups and a 12-week educational intervention focusing on the themes of fairness, empathy (perspective-taking), personal welfare and inclusion versus exclusion of peers. As compared to our control group, study results demonstrated significant developments in our experimental group's ability to respond to ethical questions, increased use of emotion markers, and increased use of justification terms in support of responses.

Key words

early childhood, ethics education, moral development, Philosophy for Children

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Introduction

Since Matthew Lipman and colleagues (Lipman, Sharp & Oscanyon 1981) began the Philosophy for Children (P4C) movement in 1974 philosophical inquiry has been introduced in over 100 countries and in thousands of schools (Cebas & García Moriyón 2010; Trickey & Topping 2004; UNESCO 2007). There is great diversity in the aims, scope, and scale of this work, the countries and schools involved, and the children engaging with philosophy. However, a consistent aim of P4C projects is to 'encourage young people to engage with one another in rational discussion, to teach them to develop a viewpoint as a group, from discussions in which meaning is generated by exchanges between group members' (UNESCO 2011, p. 15). Alongside this wide-ranging introduction of P4C programs (and many derivatives of the Lipman approach), increasing attention has been devoted to empirical research on the impacts of P4C. There is now a vast literature on research that supports the impact and effectiveness of philosophical educational work with children in several domains, including educational, cognitive, and social-emotional benefits.

P4C research has been, and remains, less focused on demonstrating the relevance of this pedagogical approach to moral development, particularly in the context of early childhood. The Philosophical Ethics in Early Childhood (PEECh) project was developed, in part, to address the relative lack of empirical research on the moral developmental implications of practicing philosophy with children. More specifically, PEECh aims to advance knowledge of preschool children's (aged 3-5) ethical understanding and explores the effectiveness of philosophical discussion of children's literature and extension activities for fostering ethical development in early childhood. Various distinctions are proposed regarding the terms *ethical* and *moral* but there is no commonly or uniformly accepted division between these terms. In this paper, we use the terms *ethical* and *moral* as synonyms and alternate their use in accordance with the literature and/or educational practice under consideration in a given section of the paper.

We begin Section I of this article with a brief survey of research on P4C interventions in early childhood. We then turn to discussion of the purpose, aims, and procedure of the PEECh project, and discuss results of our educational intervention and pilot study completed with two preschool classes (experimental and control) in Central Pennsylvania, USA.

I. Philosophy for Children: Cognitive, social-emotional and ethical impacts

Philosophy for Children was founded with the intention of improving children's reasoning skills and judgment through facilitated dialogue on concepts of importance to children. The methodology of conducting these dialogues with young children — 'Community of Inquiry' (CoI) — has become a valued educational practice, one that is also increasingly supported by robust educational research.

For example, Hargrave and Senechal (2000) examined the effects of dialogical storybook reading on the acquisition of vocabulary in young children (aged 3-5 years). Children in a dialogic reading group made significantly larger gains in vocabulary acquisition, as well as gains on a standardised expressive vocabulary test, than children participating in a traditional (non-dialogical) book-reading group. Similar findings have been demonstrated by Whitehurst and Lonigan (1998) and Valdez-Menchaca and Whitehurst (1992). The Dyfed County Council (1994) also examined the impacts of dialogical storybook reading with young children (aged 5 years), finding significant improvements in the reasoning, listening, and language skills of the examination group when compared to controls. In addition, Daniel and colleagues have developed a series of studies that show advances in young children's dialogical critical thinking and language development (Daniel & Delsol 2006; Daniel & Gagnon 2011; Daniel, Pettier & Auriac-Slusarczyk 2011) as a result of participation in classroom CoI. For example, Daniel, Pettier and Auriac-Slusarczyk (2011) examined discursive and language competence in groups of 4- and 5-year-old children and found that children participating in dialogue within a CoI developed more complex language use and greater decentering and abstraction capacities. Children participating in philosophy sessions were better able to engage in dialogical (as opposed to anecdotal or monological) exchanges and were better able to abstract beyond their own perspective in discussion (e.g. transitioning from 'I' statements to 'they' and 'you' statements).

In sum, contemporary research suggests that the development of critical thinking, reasoning, and discussion and language skills can be enhanced in early and middle childhood through participation in dialogical teaching and interaction in a CoI that includes students in decision-making, communication, and co-construction of meaning (Fair, Haas, Gardosik, Johnson, Price & Leipnik 2015a, 2015b; Gasparatou & Kampeza 2011; Reznitskaya, Kuo, Clark, Miller, Jadallah, Anderson & Nguyen-Jahiel 2009). In addition to these benefits, research has pointed to social and emotional development in

children participating in CoI and P4C programs. Giménez-Dasí, Quintanilla and Daniel (2013) conducted research that demonstrated advances in young children's (4 and 5 years) emotional comprehension (for example, of happiness, sadness, fear, anger, pride and jealousy) and social competence after engagement with philosophical dialogue on emotions. Moving beyond behavior and prosocial training approaches common to many social and emotional learning programs, this study provides evidence that facilitated dialogue, explanation and reflection over the course of one school year can have a substantial impact on social and emotional development in early childhood. Working with an older population of children (11 and 12 years), Trickey and Topping (2006) demonstrated that weekly participation in collaborative inquiry over seven months can lead to significant gains in academic self-esteem and self-confidence, and reductions in anxiety. In addition, Sasseville (1994) reported some evidence for the impact of dialogue in a CoI on the development of self-esteem in children (grades 3-6). Collaborating with classroom teachers to implement a dialogue-based educational intervention, Sasseville's study showed particularly significant gains in self-esteem for participating children with previously recorded low self-esteem (as based on a pre-test assessment).

There is, then, substantial evidence showing that participation in a CoI (over the course of weeks to months) can have a positive impact on the development of critical thinking, reasoning, discussion and social-emotional skills in children. However, the same cannot be said for moral development and related skill sets (for example, perspective-taking and moral reasoning). There is still relatively little empirical research on P4C and its significance for moral development in early childhood (for a few examples, see Gardner 2012; Schleifer, Daniel, Peyronnet & Lecomte 2003). This relative lack of attention to moral development (particularly in early childhood populations) is problematic for at least two reasons: First, as relevant research has made clear, early childhood is a significant period of life for moral development. By age 3 children become capable of making distinct moral and conventional judgements (Nucci 2001; Smetana, Jambon & Ball 2014). By years 4 and 5, children begin to develop a basic theory of mind by which they come to recognise and distinguish the beliefs, desires and intentions of others from their own and, further, begin to understand the relationship of beliefs and intentions to outcomes and actions in moral situations (Flavell, Mumme, Greene & Flavell 1992; Wainryb & Brehl 2006; Wainryb & Ford 1998). To not consider the impacts of P4C on moral development is to neglect a significant area of child development.

Second, it seems likely that many of the skills that P4C and participation in a CoI clearly *do* foster are also relevant for moral development. Skills such as critical thinking, perspective-taking, collaborative dialogue, and cooperation with others have implications for moral development, including understanding and living with others, acting prosocially, and evaluating the moral dimensions (e.g. intentions, outcomes, relevant facts, etc.) of experience. These skills, even if not explicitly ‘moral’, can provide scaffolding for the broader moral development process (e.g. the morally developed individual will, among other things, be able to understand the perspectives of others and critically evaluate morally appropriate courses of action, or inaction in a given situation). What is more, in order to adopt the use of dialogic teaching for the development of these skills, teachers (and other practitioners) need to have a better and evidence-based understanding of the moral developmental benefits and function of dialogue and CoI in early childhood classrooms.

Given the significance of moral development in early childhood and the potential relevance of P4C interventions for this area of development and education, it is important that we devote greater time and attention to relevant research. A primary aim in developing the PEECh project was to begin to fill this gap in the literature and better understand the potential benefits of P4C interventions for moral development in early childhood.

II. Philosophical ethics in early childhood

As noted above, research suggests that P4C programs (utilising dialogue and CoI) can contribute to the development of critical thinking, language, reading, discussion skills and areas of social-emotional flourishing. However, there is a relative lack of empirical research on the moral developmental implications of P4C, particularly in the context of early childhood (3-5 years).

To contribute to this understanding, PEECh seeks to provide preliminary responses to two research questions, one *epistemic* and one *educational*:

1. What ethical concepts are most salient for/in the ethical understanding of (these) preschoolers? (*epistemic*)

2. What impact, if any, does philosophical dialogue in a CoI and extension activities on ethical issues have on moral development and ethical understanding for (these) preschoolers? (*educational*)

The first question (*epistemic*) was designed in order to focus our research team on the ethical issues, interests and understandings our pre-school groups already possessed, prior to our educational intervention. For example, it became clear following our pre-interviews with participating children that issues of *fairness* were easily identified by both the experimental and control groups such that the majority of children knew the term and identified it as a central ethical issue in relation to our interview prompts.

The second question (*educational*) was designed to focus on the impact of our P4C-based educational intervention on the ethical understanding, interests and verbalization (regarding ethical issues) of our pre-school experimental group (see section IIc below for discussion of the PEECh educational intervention).

We decided on these research questions based, in part, on research team members' previous classroom work with young children and, as noted above, the desire to address a significant gap in P4C research. In addition, current research in moral development influenced the selection of these research questions and related ethical concepts to orient our intervention. Based on the work of several leading moral development researchers (Killen 2007; Nucci 2001; Smetana, Jambon & Ball 2014; Theimer, Killen & Stangor 2001) we hypothesised that issues and discussions relating to *fairness*, *personal welfare* (particularly in regard to issues of harm), and *inclusion and exclusion of peers* would be primary in the experience and understanding of children. As opposed to Kohlberg's prominent global stage theory which posited general stages of cognitive and moral development and regarded young children as essentially 'amoral', Social Domain Theory posits domain-specific development starting from early childhood (Killen 2007). Children develop *social* concepts from their early and continuing experiences with social interactions, customs and norms, and *moral* concepts from their early and continuing experiences of harm and fairness (Smetana, Jambon & Ball 2014). Thus, and contra Kohlberg, children do not possess only social-conventional-authority based concerns in early childhood (and then advance on to moral concerns as they grow older); rather, children, from the age of 2-3 years, possess basic understandings of and differentiate between social and moral concepts and actions (Nucci 2001; Nucci & Turiel 2009; Smetana, Jambon & Ball 2014; Turiel 2014).

Several Social Domain Theory studies have demonstrated that young children consistently distinguish between and judge moral transgressions (relating to fairness, welfare and rights) differently from social transgressions (relating to conventions and group norms), judging the former to be more serious across contexts, more deserving of punishment, and wrong in the absence of rules (Smetana 1981; Turiel 1983). For example, Smetana (1981) conducted interviews with young children (aged 2-9 years) to ascertain their understanding of moral and social-conventional rules and related judgements in response to rule violations by other children. In considering hypothetical rule violations (for example, a moral violation, such as a child shoving another child, and a social-conventional violation, such as a child not sitting in her assigned space during 'story time'), children consistently made distinct judgements as to the seriousness of the offense and the importance of the rule in question. When considering moral transgressions, children judged violations to be wrong across social contexts (whether committed at home or in school) and as meriting greater punishment than social-conventional transgressions. In addition, some evidence was provided that, from a young age, children begin to distinguish between the 'rule-contingency' of social-conventional and moral rules. That is, Smetana's work indicates that the children did not feel that it would be acceptable to shove another child, even if a teacher said this was permissible. Alternatively, rules pertaining to seating assignments, dress code, and classroom participation (social-conventional rules) could be altered with much more flexibility by an authority figure.

Another focal area for our research – *inclusion and exclusion of peers* – is also related to the research base of Social Domain Theory (Killen 2007; Theimer, Killen & Stangor 2001). Several Social Domain Theory researchers have demonstrated that friendship and in-group/out-group distinctions are prominent in early childhood (for example, in the context of play) and provide a regular and concrete basis for social and moral decisions. Children make decisions about group and peer interaction, inclusion, and exclusion, in nuanced ways that combine moral, social, and personal judgements based on context and several variables (age, race, gender, ethnicity, etc.) (Killen 2007). Given these findings, the PEECh research team decided to make *inclusion and exclusion of peers* a central theme in our intervention and child interview questions.

We added a further focus on *empathy and perspective-taking* in our study, as informed by research demonstrating the significance of this aspect of moral development in early childhood (Hoffman 2001; Eisenberg & Miller 1987; Eisenberg, Spinrad & Morris 2014).

Eisenberg, Spinrad and Morris (2014) define empathy as ‘an affective response that stems from the apprehension or comprehension of another’s emotional state or condition and is similar to what the other person is feeling or would be expected to feel in the given situation’ (p. 184). Empathy is a central moral developmental skill set in early childhood given its linkage to other-oriented morality in children (Eisenberg & Miller 1987; Eisenberg, Spinrad & Morris 2014, p. 184; Hoffman 2001). In addition, a focus on empathy presupposes a theory of mind, in that children must be able to differentiate themselves (and their own thoughts, feelings, beliefs, desires and intentions) from those of others in order to exhibit other-regarding empathy. Theory of mind development has been discussed by many as central to moral development, including the formation of moral judgement, understanding the relevance of intention to moral action, and empathy and perspective taking (Leslie, Knobe & Cohen 2006; Loureiro & Souza 2013; Smetana, Jambon, Conry-Murray & Sturge-Apple 2012).

a. Research method and data collection

This study is best understood, broadly, as a qualitative research project. As such, our aim is not to generalise our research to *all* preschoolers, but rather, to tell a detailed story about *our* group of pre-school participants. To this end, we used multiple methods of data collection (see below) to develop a deep understanding of participating children’s ethical understanding, including their emotion recognition, previous experience with ethics education, and changes in behaviour and articulation of ethical concerns and solutions to hypothetical dilemmas. We adopted a phenomenological method of analysis (Patton 2002; Van Manen 2003), aiming to explore the lived ethical experience and understanding of these children, including how they ‘make sense’ of their ethical experiences. Phenomenological analysis also allows for considering the place of researchers in analysing these experiences (Smith, Hardman, Wal & Mroz 2004, p. 40). Thus, there is, in this method, an acknowledged process of meaning-making by the study participants and by the researchers (in relation to the experiences of the participants). Phenomenological analysis also allows for flexibility in approach and an inductive emphasis such that emergent themes and questions can be taken into account during the course of research (Smith et al. 2004, p. 43). Our research team found this emergent approach important in allowing us to be sensitive and responsive to the ethically relevant themes, questions and actions arising from children and teacher participants in the study.

We used four data collection methods. First, we carried out pre-intervention and post-intervention semi-structured interviews (each 10-15 minutes in duration) with children. During the interviews, one researcher asked interview questions while two other researchers transcribed interview responses from the children. All interview questions were accompanied by illustrations that showed situations with ethical themes (i.e. open-ended conflicts or dilemmas that called for an ethical statement or decision from the children) and that were designed to increase young children's comprehension of these situations. Interview questions (and accompanying follow-up questions) were intended to gauge the most salient ethical considerations for these children, in order to determine their ability to understand and respond to ethical questions, as well as their ability to identify emotion markers and potential solutions to ethical problems (see Appendix 1). All interviews were audio-recorded and transcribed.

Second, researchers conducted pre-intervention and post-intervention interviews with lead classroom teachers (of both the experimental and control classrooms) about each student's ethical development. The interviews were tape-recorded and varied in length from 75 minutes to 90 minutes. The interviews were open-ended, carried out in a conversational style, and included five questions (See Appendix 2).

Third, researchers conducted classrooms observations in experimental and control classrooms before and after the intervention. All children were observed in different class activities for five weeks. We adopted a non-participant observation method (in which our research team observed classroom activities without taking part in the activities), enabling us to complete extensive observation notes. In addition to these observations, researchers maintained field notes throughout the study in relation to PEECh interviews, sessions and activities. Researchers also completed memos while listening to taped interviews, typing transcripts and reflecting upon particular interviews.

Finally, in order to gain information about the prior ethics education experiences and opportunities of study participants, researchers used parent questionnaires and teacher questionnaires. Parents were asked to fill out background information and answered eleven questions regarding their previous ethical discussions with their children and their children's ethical behavior. Teachers were asked to complete a questionnaire that detailed their teaching experience, level of education, use of storybooks and ethically relevant lessons in their classrooms, and general elements of their classroom structure (e.g. class rules and discussion style during activities).

To increase the trustworthiness of our data, we practiced three methods: *prolonged engagement*, *triangulation of data*, and *peer review debriefing*. *Prolonged engagement* refers to investing extensive time at a research site to gain understanding and achieve research purposes (Lincoln & Guba 1990). This includes learning the culture of the school, building trust with participants, and gaining, as far as is possible, a robust understanding of the research site. *Triangulation of data* is achieved by coordinating multiple sources of data and methods in order to establish findings in a study (such as interviews, observations, questionnaires and memos). *Peer review debriefing* supports trustworthiness in research findings by providing an 'external check' of the research and data evaluation process (Creswell 2009). In our study, we relied on two peer debriefers who were university professors specialising in qualitative and quantitative research methods and field research in schools/with children, teachers and parents.

b. Context and participants

The study was conducted in an all-day preschool in Central Pennsylvania, USA. Of 36 children aged 3-5 attending the preschool, a sample of 30 participated in the research; six children were excluded from the study due to lack of parental consent and/or extended school absences. Of a total of 30 3-, 4-, and 5-year-old children who participated in the study, 15 children comprised the experimental group and 15 comprised the control group (see Table 1). The first languages of children in the experimental group were English (67%, n=10), Chinese (20%, n=3) and Arabic (13%, n=2). The first languages of children in the control group were English (73%, n=11), Chinese (20%, n=3) and Thai (7%, n=1). Children in this preschool primarily belonged to middle-class families with parents affiliated with a local research university. The school is situated within the university campus and hosts researchers and students affiliated with the university to conduct observations and educational research programs. The school is different than many others in that part of its mission is to provide an authentic learning environment to innovate, conduct research and educate. The teachers employed at the school are highly qualified with many years of teaching experience and several teachers possess graduate degrees (see Table 3).

Table 1: Number of children

	5 years old			4 years old			3 years old			TOTAL
	M	F	Total	M	F	Total	M	F	Total	
Experiment	2	-	2	3	5	8	2	4	6	15
Control	1	1	2	2	5	7	3	3	6	15

Table 2: Primary languages of children

Experiment	Control
10 (67%) English	11 (73%) English
2 (13%) Arabic	3 (20 %) Chinese
3 (20%) Chinese	1 (7 %) Thai

Table 3: Teacher and classroom context**Experience**

3 teachers: 10+ years

3 teachers: 2 or less years

Highest degree

3 teachers : Graduate degree

3 teachers: Graduate level courses

Ethics, character education, or social-emotional learning programs used in classes

Preschool Promoting Alternative Thinking Strategies (Preschool PATHS)*

Positive Behavioral Interventions & Supports (PBIS)**

Read a story book

Both classes – daily

Lead ethics-related activities/ lessons

Both classes - daily/weekly

Examples:

Feeling chart, graphing, acting out stories, matching games, charades, puppets

Problem solving

Conversations about fairness, role playing with puppets, sharing, modeling friendship, and trading problem solving solutions

PATHS lessons with puppets, role play, books on social-emotional topics

* The Preschool PATHS curriculum is a comprehensive educational program to promote social and emotional competencies and the development of prosocial behavior in early childhood. The curriculum includes relevant theoretical background, detailed guides, lessons, and activities for classroom and parent use.

** The PBIS curriculum is a social and emotional learning program that aims to reframe school discipline practices by supporting and encouraging behavior that is conducive to a positive school environment. Like PATHS, PBIS includes a focus on classroom activities and pedagogical supports (focusing on items such as attention to rules, respecting others, establishing positive classroom routines, etc.).

c. Procedure and educational intervention

As part of the Institutional Review Board conditions for study procedure, participant consent was gained through parental consent forms (obtained in advance of the study) and through children's consent prior to the start of interviews. All children were informed that they didn't have to participate and, during the study, that they could stop participating at any time. If a child indicated s/he did not want to participate, the child interview did not commence. In addition, school directors and participating teachers were asked to sign consent forms to ensure their understanding of the purpose of the study and to ensure voluntary participation in interviews and classroom observations. Pre-intervention classroom observations, pre-interviews with children and teachers, and parent and teacher questionnaires were not conducted until all consent forms were collected. Post-intervention classroom observations, post-interviews with children and teachers, and parent and teacher post-questionnaires were conducted after the educational intervention component of the study.

The first part of the educational intervention consisted of a series of eight sessions with the experimental group for one hour, once-per-week. During these sessions the research team implemented a Philosophy for Children-based methodology, fostering discussion with the experimental group on four primary themes: fairness, perspective-taking/empathy, welfare, and inclusion and exclusion of peers. During each of these eight sessions, the whole class sat in a circle and the lead facilitator (a member of the PEECh research team) introduced a short story as a discussion prompt. A second facilitator sat beside the lead facilitator and used puppets to represent characters in the story and to 'act out' the story for the children. Following the story reading (see Tables 4 and 5), the lead facilitator led a brief discussion on the story, its themes, and questions raised by the children. The stories used as discussion prompts (aside from two published works of children's literature) were written by the PEECh Primary Investigator.

For the second part of the intervention, an extension activity was introduced to small groups of children (3-4 children of mixed ages) following each story reading and discussion. Extension activities were developed by the PEECh research team and were

inspired by techniques in Philosophy for Children programs, early childhood education, and social-emotional learning. Groups cycled through the extension activity until all children in the class had an opportunity to participate. For example, following the reading and discussion of 'The New Kid in Class' (see Table 5), groups of 3-4 children were presented with a piece of paper and markers. The top half of the paper contained a drawing of 'Kristina' (the fictional child in the story who is new to class and does not have any friends). The bottom half of the paper was left blank. The children were then asked to draw what, if anything, the children in the class should do for Kristina (see Table 4 for list of all extension activities). Researchers then discussed these drawings with the children.

Each session and extension activity was audio-recorded and transcribed in full. In the transcripts, the names of the children were changed to a code to ensure confidentiality. In the control classroom, the lead teacher read the same stories that were used in the experiment classroom. These stories were read on the same day and at the same time. However, the lead teacher in the control classroom did not have access to our discussion questions, background in Philosophy for Children methodology, or our extension activities. PEECh researchers observed and audio-recorded three of these control sessions.

Table 4: PEECh stories and extension activities

Week	Stories	Extension activities
1	Mark and Katie Love to Play Ball	1. Fair/ unfair clapping game 2. Story retelling with puppets
2	The New Kid in Class	Drawing panel: 1 side for image of Kristina; second side for children's drawings
3	Sue and Jessie are Friends	Story retelling with puppets
4	Fred and the Broken Toy	Listening Lotto – (the emotion game)
5	Jasmine, Cori and Cookies	Problem solving activity
6	Sarah and the New School Rules	Creating classroom rules poster
7	<i>Hey Little Ant</i> (Hoose, Hoose & Tilley 1998)	Small focus group discussion on perspective-taking
8	<i>Rainbow Fish to the Rescue</i> (Pfister 1995)	Small focus group discussion and “choosing the end of the story”

Note: This table lists each of the stories used by classroom teachers participating in our study, along with the corresponding extension activity (used only in our experiment class) for each story. These stories and extension activities were developed and/or selected by the research team in order to foster child-centered discussion and engagement on the primary study themes: fairness, perspective-taking/empathy, welfare, and inclusion and exclusion of peers.

Table 5: Sample story and discussion questions***The New Kid in Class***

Kristina's family just moved to town. She is starting her first day at her new school. She doesn't know anyone in her school and she feels shy and a little nervous. After getting dropped off at school by her parents, Kristina walks into her new class. She sees some kids playing games in one corner of the room. In another corner of the room she sees some kids drawing pictures of their favorite animals.

Kristina likes to play games and likes to draw, but she doesn't know anyone in class and she's not sure what to do. So, Kristina decides to stand by herself in another corner of the room. Some of the kids in class notice that Kristina is standing by herself.

Questions:

1. How do you think Kristina feels right now? Why?
2. What are some things the kids in class could do for Kristina? Why should they do those things?
3. How do you think Kristina will feel after the kids do those things?

III. Data Analysis**a. Observations**

As noted above, classroom observations were conducted before and after the PEECh intervention. To ensure inter-researcher reliability, researchers did joint observations in each classroom, shared their field notes, and discussed them after each observation session.

b. Interviews and field notes

Analysis of the data set followed a three-step plan. First, the researchers read all parent questionnaires and observation/field notes and transcribed and read all children's and teachers' interviews. The aim at this stage was to gain a general sense of the main themes and ideas presented across this data. Second, significant statements and phrases relating to PEECh themes (fairness, personal welfare – particularly in regard to issues of harm – inclusion and exclusion of peers, empathy and perspective taking) were extracted from

each transcript. Third, in reference to these themes, researchers returned to all data and compared pre- and post-interview responses and questionnaires. Triangulation of data sources was used to arrive at justification for identified themes and relevant areas of data.

IV. Results

For the purposes of these results, and given the vast amount of data obtained in this study, we are focusing here on two primary themes – (1) inclusion and exclusion of peers and (2) empathy and perspective taking – and two primary areas of data collection (child and teacher interviews). Data was collected for children ranging from 3–5 years of age in mixed-age classrooms. However, we focus our discussion below on 3- and 4-year-old children given the small number of 5-year-olds involved in our study (4 total).

Researchers also conducted a ‘frequency analysis’ of the collected data in addition to our qualitative, thematic review of child and teacher interviews. This frequency analysis took the form of a quantitative pre- and post-analysis of child interview responses pertaining to (1) the total number of words used in interview question responses (i.e. whether verbalisation increased or decreased across interviews and groups), (2) the total number of emotion markers (e.g. the use of an emotion-referenced term such as ‘sad’, ‘nervous’, ‘happy’, ‘angry’ etc.) used in interview responses, (3) the total number of solutions and justification terms (i.e. ‘because’, ‘so that’, and various solutions offered in response to dilemmas posted in interviews), and (4) the total number of ‘irrelevant answers’ (e.g. ‘I don’t know’ or indiscernible answers). Results are shown in Tables 6 and 7 below.

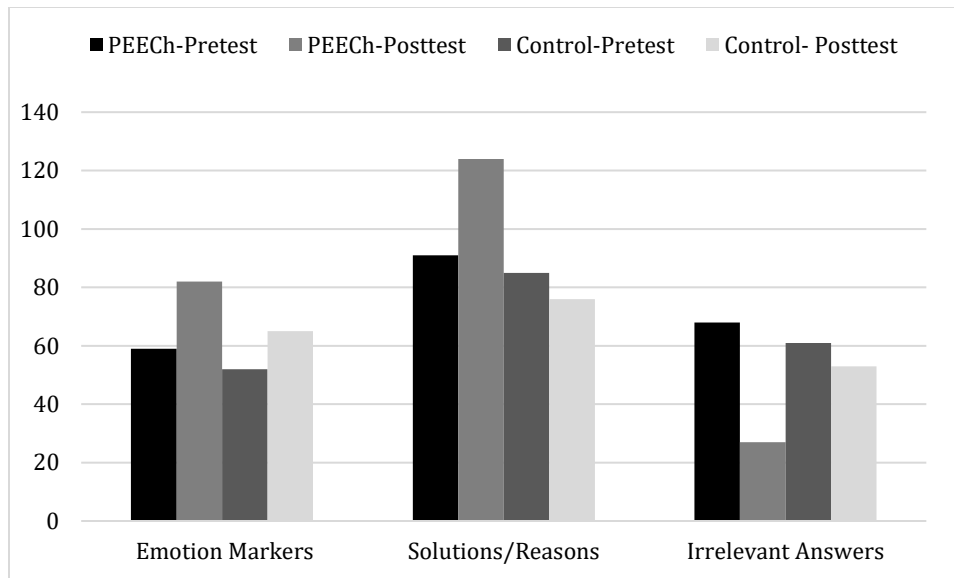


Figure 1: PEECh experiment and control groups (all ages) – children interview questions (N: 30)

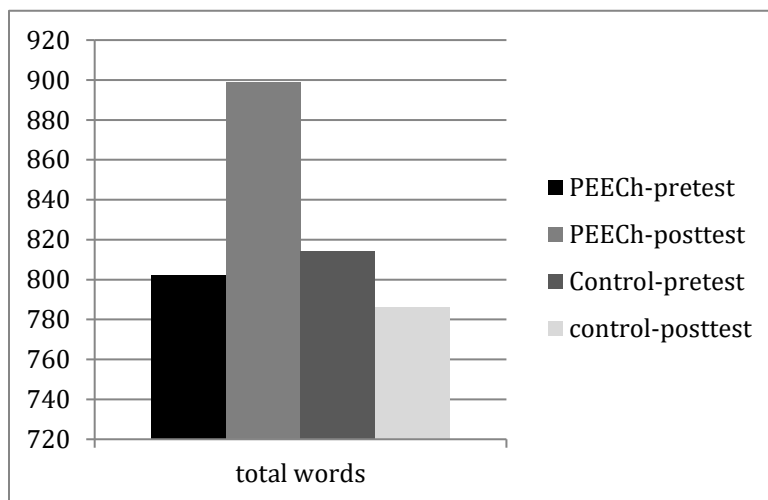


Figure 2: PEECh experiment and control groups (all ages) – total number of words (N: 30)

a. Inclusion and exclusion of peers

In comparing pre- and post-child interview results across all questions, 3-year-old children in the experiment class answered more questions (and, in turn, provided fewer 'I don't know' responses) and offered more solutions and/or justification for their

responses than their control class peers. As one example, Child A1 (a 3-year-old, experiment class, child) developed additional solutions in response to a question on inclusion and exclusion of peers (i.e. including or not including a child who is new to class and alone). Whereas during the pre-interview Child A1 offered one solution in response to this scenario ('I ask her children who want to play with me ... yes'), in the post-interview Child A1 offered additional solutions ('I would ask [if the new child wants to play] and if they say no then I'd just ask the teacher').

The experiment group classroom teacher stated that four of the six 3-year-old children in her class demonstrated higher levels of inclusion behaviors toward peers (as compared with inclusion behavior at the start of our study). Discussing Child A1 in the post-interview, the classroom teacher noted that she had improved in her inclusion skills:

She has really improved from before. She was very egocentric and everything was revolving around her. She is willing to listen to others now, including in the block area [an area of the classroom in which children play and build with blocks] too ... She loves to play with other children. So, it [inclusion behavior] happens all the time. Very often, it really doesn't matter who it is. She will invite the others to join her or she will ask to join them.

In her post-interview, the control classroom teacher described just one child as showing increased inclusion behavior.

In turning to 4-year-old children's pre- and post-child interview responses, in the experiment class, four of the eight children answered more questions and offered more solutions and/or justification for their responses in post-interviews as compared with pre-interviews. Students in this class also evidenced an increased ability to offer inclusion-based responses to ethical dilemmas. Whereas during the pre-interview (on the topic of including or not including a child who is new to class) both Child O and Child C offered 'I don't know' responses, in the post-interview both of these children offered responses relating to inclusion:

Child O: *I would say do you wanna play with me.*

Child C: *I would play with her*

In addition to the interviews, as reported by the researcher field notes, Child A3 (a 4-year-old in the experiment group) showed increasing inclusion behaviors and participated more actively in group activities following PEECh sessions. These observations were further supported by the classroom teacher who discussed the progress of Child A3 in

demonstrating inclusive behavior toward peers. Discussing Child A3 during the teacher pre-interview, the experiment classroom teacher noted:

She waits for others to include her. You know what I mean? She doesn't initiate a lot of play. She waits for somebody to say: '[Child A3] come to the water [a play area]'. I don't want to say never but I don't see a lot [of her actively involving others in play].

Discussing Child A3 in the teacher post-interview, she notes:

She will ask them [other children] to come play with her like especially in the dress up area. They like to play in that area and I will hear her say: '[Child I], will you come play' or '[Child J2] or [Child M2]'. Typically, these are the three she likes to play with. It happens pretty often.

b. Empathy and perspective taking

In comparing pre- and post-child interview results, 3-year-old children possessed better understanding of the perspectives of others, used more emotion markers in their interview responses, and offered more potential solutions to empathy and perspective-based dilemmas than their control class peers. We make the claim of 'increased perspective taking' in our experiment class based on several areas of data analysis: child interview responses (showing increased use of emotion markers), classroom observations (revealing increased inclusion behavior), and as reported in teacher interview responses (noting behavior changes aligning with increased perspective taking). However, and as noted in our Discussion Section (see below), additional measures are needed in order to help us better understand changes in ethical understanding and related abilities – including perspective taking – due to the PEECh intervention as opposed to ongoing developmental changes (including the development of language and theory of mind) occurring in these 3-5 year olds (i.e. changes that would occur whether our intervention was introduced or not). Indeed, this is a challenging issue for most all research on the impacts of early childhood interventions.

As an example of change in empathy and perspective taking, Child T1 – when asked a pre-interview question on how to respond to a friend whose drawing you do not like – commented, briefly, that it is best to say 'nothing'. During the post-interview Child T1 offered a lengthier, more nuanced response that referenced increased perspective-taking and emotion markers (happy and angry):

She should not say 'no.' That's not good. Because that's a bad word, not gonna make people happy. It might make people angry.

Moreover, the experiment class teacher indicated that all six children showed progress in perspective-taking over the course of the PEECh intervention. Commenting on Child T in her post-interview the teacher noted:

He has really improved on both of these (regarding inclusion and perspective taking). He has a core group of friends he likes to be with but I have seen him expanding and including others in his play ... He will listen to them, their ideas, especially talking about items that he likes talking about, like space, transportation, and the trains and the airplanes like that. That's, like, his world (laughing).

In the 3-year-old control classroom two of six children used increased emotion markers in their post-interviews. As compared to their experiment class peers, the control class had a more difficult time discussing how to respond to a friend when you do not like her drawing. Discussing some perspective-taking difficulty for Child M (a child in the control class) a teacher noted in her pre-interview:

Taking somebody else's point of view when they are playing is difficult for him ... Even if he is invited as a friend [to play] he is difficult because he has his own vision and he wants to see it ... It can lead to conflict and nobody quite understands what his vision is ... So it is very tricky and very complicated.

In her post-interview the teacher noted little progress in Child M's perspective taking, noting that, in play, he 'rarely' listens to the point of view of others.

In turning to 4-year-old experiment group children, the classroom teacher felt that five of seven children demonstrated increased perspective taking. Discussing Child A2's perspective taking during the pre-interview the teacher noted:

This would be a 'sometimes.' He will listen to others, especially if its close friends ... he really doesn't invite play.

The teacher assessed perspective taking in Child A2 in her post-interview as follows:

This has gone much better ... You know I have seen him and a couple of his buddies really talking and negotiating and listening and telling stories about planes and where they are travelling to and at one point he used to say they had to go everywhere he wanted to go. Now he is listening. He is saying, 'Oh, OK. You want to go to Japan and you want to go to Florida

and you are gonna go to Germany and now he is able to have different perspectives and different ideas. So, he has gotten better with that.

Child interview responses also show progress in the area of perspective taking. Four of seven experiment group children used increased emotion markers and offered additional solutions in their responses to interview questions.

In the control classroom, the teacher felt that two of seven children showed progress in perspective taking relating to understanding the emotions of others. Whereas Child BL primarily engaged in 'parallel play' at the time of the teacher pre-interview, at the time of the teacher post-interview Child BL increased his play with other children and was doing a 'nice job' with listening and interacting with peers.

According to the child interviews, 4-year-old control group children also increased their use of emotion makers. However, they did not offer more solutions when responding to perspective-taking based questions and, further, offered more 'I don't know' answers across pre-and post-interviews.

V. Discussion

Our research outcomes are promising in five areas: (1) as compared to our control group, the PEECh experimental group exhibited increased verbalisation during child interviews (i.e. an increased ability to respond to/speak on ethical questions) coupled with a decrease in irrelevant or 'I do not know' answers; (2) increased use of justification terms to support answers to ethical questions during child interviews (i.e. use of terms such as 'because' and providing supporting reasons for an answer); (3) increased emotion recognition in interviews (i.e. increased use of emotion markers in response to relevant questions calling for emotion recognition, empathy, and perspective taking); (4) increased perspective taking as seen in child interview responses and classroom observation, and as reported in teacher interview responses and (5) increased inclusion responses (as seen in child interviews) and behavior as reported in teacher interview responses. These findings provide evidence for the benefits of PEECh – a Philosophy for Children-based education intervention – for moral development and increased ethical understanding in early childhood.

We regard these findings as encouraging and meriting additional PEECh research; however, they are subject to several limitations. First, given our small sample size

(experiment group=15 children) there is a need to replicate this study with a larger and, further, more socio-economically diverse population. Children in this school primarily belong to middle-class families with parents affiliated with a local research university. The school is different than many others in that part of its mission is to provide an authentic learning environment to innovate, conduct research and educate. The teachers employed at the school are highly qualified with many years of teaching experience and several possessing graduate degrees. This is not the case for all, or even many, early childhood education centers and preschools.

Second, additional measures are needed in order to help us better understand developmental changes/changes in ethical understanding due to the PEECh intervention as opposed to ongoing developmental changes occurring in these 3-5 year olds (i.e. changes that would occur whether our intervention was introduced or not). This is a fundamental issue in *all* early childhood intervention research and, thus, is not unique to our project. The next iteration of this study will include quantitative pre- and post-measurement of child theory of mind and social competence, as well as a significantly larger sample size ($n=75$), in order to increase understanding of PEECh-related impacts.

Third, as noted above, significant data presented in this study was collected using interviews and observations. The research site was selected, in part, based on its location, age group, and availability. The next iteration of this study will use random selection for samples in order to increase validity of data. Additional safeguards will be used to ensure that researchers are blind to selection of control and experiment groups in order to prevent any experimenter effects and bias in interpretation of results.

Many of the limitations noted here result from the status of this project as a *pilot study*, one in which a substantial aim was to explore and develop initial evidence for a philosophical ethics education program for young children. A major success of this project was the development of a revised 9-week PEECh curriculum (complete with a guide to conducting dialogue with young children, warm-up activities, stories and extension activities). This curriculum can be used by classroom teachers to introduce PEECh lessons and is a substantial advance for the next iteration of our study. In addition, on the basis of our pilot work, we have developed a PEECh Teaching Workshop that we will be used to train participating teachers and staff and provide for additional research opportunities.

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Appendix 1 – Child Interview Protocol Example



Scenario: Mark and Katie are playing with a ball on the playground. Mark pushes Katie down so he can get to the ball first.

Interview Questions:

How do you think Mark might be feeling?

How do you think Katie might be feeling?

How do you think Katie feels after she gets pushed down? Why?

How do you think Mark feels when he pushes Katie down? Why?

What should Mark do after pushing Katie down? Why?

Appendix 2 - Teacher Interview Protocol Example

1. When (student's name) breaks a classroom rule, how do you think she/he generally feels about it? (What evidence do you have of these feelings?)

What does she/he do after she/he breaks a rule?

2. When (student's name) has conflict with others (sisters/brothers/peers), how does she/he typically resolve these conflicts? Can you give me an example? (Describe it for me)

3. Tell me about a time when she/he listens to others' points of view. How often does (student's name) listen to others' points of view?
(Never; Sometimes; Often; Very often)
4. Tell me about a time when he/she includes others when playing. How often does (student's name) include others when playing?
(Never; Sometimes; Often; Very often)