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THE PLAYGROUND OF IDEAS

Developing a structured approach to the Community of Inquiry for young children

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Summary

The Community of Inquiry is a pedagogy which allows children to participate in collaborative discussion, and has been a key practice of Philosophy with Children since its inception. This chapter presents research findings which support the claim of the educational benefits of this approach, and also considers barriers to participation by all children, especially those who have not developed early communicative competency. I therefore present the Playground of Ideas, which provides a structured discussion framework approach in order to support children's critical thinking skills and dispositions through collaborative dialogue. Two case studies with children aged 6 and 7 and their teachers indicate that the Playground of Ideas contributes to the development of a classroom culture of dialogue and collaborative thinking.

Background

In 2014, I started a Primary Post Graduate Certificate of Education (PGCE) course with a school-based provider in England. The instruction included a number of weeks' observations of different teachers in a school, followed by the start of our own practice. This was interspersed with days of center-based training, which was primarily carried out by an educational consultancy company.

It soon became apparent that there was a considerable disparity between the information given to us on training days about what would and should happen in the classroom, and the reality of what occurred in classroom practice.

A particular example of this was on the maths instruction days. The sequence of events, according to our trainers, was similar to the following:

1. Put children into small groups (pairs or groups of three);
2. Provide visual and tactile materials to represent number concepts (number lines, Cuisenaire rods, Numicon, etc.);
3. The children will talk together and in doing so come to a greater understanding of mathematical concepts. Higher-ability children will increase their understanding by explaining the concepts that they have already grasped to lower-ability children; lower-ability children will increase their understanding by collaborating with higher-ability children.

The discrepancy arose in that children did not talk in the way that had been indicated. In the practical context, children's talk was not always productive: some children argued, others understood problems quickly but did not communicate their understanding to others, some children were not confident to speak – or, in other words, children exhibited all of the usual behavior one might expect from a group of children in a classroom.

Reflecting on this, there seemed to be a gap between steps 2 and 3 in the list above. Providing small groupwork activities for children seemed to be giving them the *opportunity* to talk, but it did not follow that children had the *skills* to do so in a way which was productive for the lesson.

This was not wholly unexpected. The work on mathematical collaboration in primary schools was carried out by Askew (2012), popularizing the work of Boaler (1999) for a UK practitioner readership. Further reading of Askew determined that he does not tend to undertake one-off sessions in schools because children need training in order to be able to carry out productive discussions. Indeed, Askew writes that teachers tend to adopt a “See, I told you these kids couldn’t do that” attitude.

What was missing from the sequence above, and from my PGCE training, was a way of teaching the children how to engage in productive talk in the classroom. This lack of guidance is also reflected in the new National Curriculum document for Speaking and Listening (Department for Education, 2013), which contains a single page of speaking and listening guidelines to cover all of primary school instruction. There are no specific guidelines as to how teachers should teach speaking and listening skills.

This is a concern also highlighted by Ofsted, the body which is responsible for school inspections in the UK. A review of school inspection documents for Devon schools in the last three years highlights a number of comments that reveal concerns about the spoken communication abilities of children at school-entry age. A school which was identified as “requires improvement” received the following comment: “a significant number have low speaking and listening skills” with “not enough focus on learning and acquiring the basic [talking] skills” (Ofsted, 2014, p. 4). This is compared to an outstanding school in which children are “routinely challenged with probing questions which make pupils think

deeply” (Ofsted, 2015, p. 6). This comment also makes explicit the connection between talking and thinking.

One reason for the disparity in children’s speaking and listening skills could be the socioeconomic status of the child. In the UK, the National Literacy Trust (NLT, 2016) State of Nation Report 2015/16 reports that children who receive free school meals (used as a measure of disadvantage as receipt is primarily dependent on low income or being in care) are less likely to have achieved required standards for communication in Early Years Foundation Stage (EYFS). The EYFS presents the educational expectations for children up to the age of 5 in the areas of Listening and Attention, Understanding, and Speaking, and 77%, 76% and 75%, respectively, of such children attained the expected level in these areas in 2015. The data for children who do not receive free school meals shows attainment of 87%, 86%, and 86%, respectively, in the assessed areas (NLT, 2016, p. 4).

That is already a sizable gap at the age of 5, and this does not diminish in the early years of schooling, as Key Stage 1 data from the NLT report show that teacher assessment in Speaking and Listening criteria sees 82% and 92% of children receiving free school meals and *not* receiving such free meals, respectively, attaining the expected level (NLT, 2016, p. 10). This pattern is repeated across other areas of the literacy curriculum.

It is therefore possible to trace a path between EYFS communication deficit and lower attainment in assessments and national testing right up to the end of formal schooling. This culminates in figures for UK national exams taken at age 16, which show that in the 2014/15 academic year, 33.1% of children receiving free school meals achieved five passing grades (including English and maths), compared to 60.9% of other children (NLT, 2016, p. 20). This is a considerable gap, and while it would of course be a presumption to attribute this entirely to children’s ability to participate successfully in productive classroom talk situations, a number of educationalists and researchers connect productive talk with children’s ability to access curriculum content (Alexander, 2004; Askew, 2012; Boaler, 1999; Mercer, 2008).

Critical thinking and classroom discussion

The previous section introduced the importance of classroom talk to educational practice, drawing connections between classroom talk and critical thinking skills. This section clarifies the meaning of those terms and further establishes the connections between them.

Attempts at defining critical thinking tend to be lengthy, highlighting Schwarz and Baker’s (2018, p. 96) recent complaint that it is a term which is “not well delineated.” As early as 1963, Ennis identified ten criteria which comprise critical thinking: deduction, assumption-finding, definition, explanation, reliability of evidence and authorities, generalization, hypothesis testing, evaluating theories, detecting ambiguities, and detecting over-vague and over-specific claims (p. 18). A key claim of Ennis’ is that a thinker who becomes competent in only one or

two of these criteria should not be considered a competent critical thinker, highlighting the interplay between the range of skills noted above.

In 1990, 46 panelists with philosophy, psychology, education, and social science backgrounds produced the Delphi Report (Facione, 1990). The statement is of considerable length, but some key points, which expand on Ennis' are

- Critical thinking is “essential as a tool of inquiry”;
- The ideal critical thinker is “habitually inquisitive,” “willing to reconsider,” “open-minded,” and “flexible”;
- Educating critical thinkers involves “nurturing those dispositions which consistently yield useful insights.”

(p. 18)

This definition of critical thinking indicates that being a good critical thinker involves dispositional elements and that critical thinking is a collaborative endeavor for the sharing and refining of knowledge.

This conception of critical thinking is highly commensurate with the pragmatist origins of the Community of Inquiry, which was initially conceived of by Peirce (see Kerslake, 2018b). A central tenet of pragmatism is a denial of the Cartesian duality of knowing for certain or relinquishing all claims to knowledge. Instead, doubt is perceived as “simply a necessary fact of being in the world” (Ellerton, 2016, p. 112). In an inquiry, beliefs are held cautiously, to be doubted, questioned, and reformulated as further beliefs to be held tentatively. Dewey (1933) summed this up as: “there is no belief so settled as to not be exposed to further enquiry” (pp. 8–9).

As inquiry takes place in the form of discussion within a community, the connection between the development of critical thinking skills and classroom discussion is clear. It can also be seen clearly from the description of the spoken language requirement for pupils across all ages of UK formal schooling (age 5–16):

Pupils should be taught to speak clearly and convey ideas confidently using Standard English. They should learn *to justify ideas with reasons; ask questions to check understanding; develop vocabulary and build knowledge; negotiate; evaluate and build on the ideas of others;* and select the appropriate register for effective communication. They should be taught to give *well-structured descriptions and explanations* and develop their understanding through *speculating, hypothesising and exploring ideas*. This will enable them to *clarify their thinking* as well as organise their ideas for writing.

(Department for Education, 2013, section 3.1)

The italics are my own, and highlight the ways in which spoken language teaching is a mechanism for the development of critical thinking skills which have been posited by Ennis and the Delphi Report.

The Playground of Ideas

The previous section expounds on the connection between classroom discussion and critical thinking skills. However, I have also highlighted the difficulties which are posed by the reality of the classroom environment in holding productive discussions. This could be due to the different levels of communicative competence that children develop before attending school. Michaels, O'Connor, and Resnick (2008) also identify a barrier to effective classroom talk, giving the example of a boy who is, in technical terms, highly competent at discursive practice: "questioning premises, making claims, bringing counter-examples" (p. 294). However, what is also clear from the boy's speech is that the contributions made by the group don't matter. The authors go on to state that this is "pervasive" (p. 294) in the examples at which they have looked. Therefore there is a key dispositional element which is also necessary to develop, in which group members come to understand that shared inquiry is a collaborative experience in which discussion relies on the contributions of the entire group.

While holding a Community of Inquiry gives children opportunities to talk, without further guidance on the specific skills and dispositions that are required for critical discussion not all children may be able to do so effectively. In response to these difficulties, I developed the Playground of Ideas (Kerslake, 2018a). It takes the position that these discussion skills need to be explicitly presented to young children in order for the skills to be employed productively in the classroom from Key Stage 1 (ages 6 and 7). This section sets out the development of the Playground of Ideas as a pedagogical approach.

It aims to overcome these difficulties by acknowledging that the kind of skills which were detailed in the previous section are abstract (e.g., evaluation or reasoning) and that consideration needs to be given to the ways in which these are presented to young children. It also aims to develop critical thinking skills through discussion in a way which emphasizes the collaborative element of holding an inquiry.

From the National Curriculum document presented above I extrapolated five key areas:

1. Speculating, hypothesizing, and exploring ideas;
2. Conveying ideas confidently;
3. Building on the ideas of others;
4. Justifying ideas with reasons;
5. Evaluating.

I wanted to find a means of enabling children to develop these skills using terminology that would be familiar to them as part of their experience as children. In addition, I wanted this terminology to be familiar to all children of a similar age at school and this seemed important because of potential differences in the home environment, as described previously. Some children, with the experience of extended discussion in the home environment, would be able to hypothesize,

TABLE 1.1 Playground equipment and skills/dispositional development

<i>Play equipment image</i>	<i>Corresponding skill development</i>
Swing	Speculating, hypothesizing, and exploring ideas
Slide	Conveying ideas confidently
Climbing frame	Building on the ideas of others
	Justifying ideas with reasons
Seesaw	Evaluating
Lookout tower	Noticing what others are saying

justify, and so on, even if they did not know the terminology for what they were doing. Other children would not have had much experience in doing this, and hence the rationale for an explicit model.

It is obvious that the task to find a common terminology is a difficult one. Differences – not only in home discourse patterns but also culture, reading ability, gender, mother tongue, and other unknown and unconsidered factors – preclude many options. However, I hypothesized that images of equipment found in children’s play parks – and indeed school playgrounds – could provide a means by which to anchor the abstract terms of evaluation, justification, and so on.

In addition to this, there is a neat overlap in the form and function of play equipment with those areas of development which I identified above. This led to an initial development of the Playground of Ideas, as follows:

Swing: Giving opinions. Children decide what they think about a question and are either on one side of the swing or the other. If they haven’t made up their mind they are in the middle on the swing. They can physically move from one side of the classroom to the other in order to show their thinking. This means that at the beginning of the sessions, children can show their thinking rather than having to verbalize it.

Slide: Being brave with your ideas. The slide reminds children that speaking up in front of the whole class can feel intimidating, such as the feeling they might get when sitting at the top of a tall slide – but if one is brave and goes down the slide, it can feel exciting. It helps young children to identify the anxious feelings that situation might produce.

Climbing frame: Building on each other’s ideas. The climbing frame is to help children to listen to each other and add more information to ideas. It uses sentence starters to help children to do this: “Following on from what Jack says, I think...”; “I agree with Emily because...”; “I disagree with Patricia because” The climbing frame develops skills by giving children the vocabulary to continue a discussion, and it also encourages listening to one other because children must be aware of others’ contributions in order to be able to use one of the sentence starters given above.

Seesaw: Giving reasons and deciding which are the best reasons. The seesaw focuses children on giving reasons for their ideas. It encourages the group to think about how valuable they think reasons are – a good reason makes the seesaw tip a

lot, as it is a “heavy” reason. It also helps children to evaluate reasons. For example, there might be five reasons on one side of the seesaw, but only one on the other, but that one reason still might make the seesaw tip farther because it is so important.

Lookout tower: Listening to and noticing what others are saying. The lookout tower asks children to climb to the top and look out over the rest of the playground. Can they see anyone on the slide who is being brave? Is there anyone giving reasons on the slide? This piece of equipment is used at the ends of sessions as a plenary. First of all, the teacher models it by explaining what the lookout tower is for and saying “I noticed Lucas was on the climbing frame because he disagreed with what Marc was saying.” Other children then follow this example.

The Playground of Ideas in classrooms

The image of each item of play equipment is introduced a week at a time throughout 10 weeks of sessions. I then wrote a series of session plans to accompany the images, with each week presenting a new philosophical question for children to discuss. A number of Philosophy with Children commentators comment on the suitability of philosophical questions for inquiry learning and critical thinking development (Cassidy & Christie, 2013; Daniel & Auriac, 2011) because of the conceptually laden nature of philosophical questions. I followed Worley’s (2015) concept of the philosophical “grammatically closed, conceptually open” question format for the session subjects.

This structure, first of all, encourages children to answer “yes” or “no.” The initial questions are in a simple “Would you rather...?” format, for example, “Would you rather be rich or clever?” The Swing allows children to move to opposite sides of the classroom depending on their answer. Each member of the class can see each other’s thinking, and that some children have thoughts different to their own. This forms the basis for the discussion: children must then give reasons for why they have chosen their answer, other children may counter with their own reasons, and then children may move to a different side if they have changed their mind.

A further example of a question is “Is it better to make one person very happy or ten people a little bit happy?” This occurs in one of the first sessions, but the same concept is revisited in later sessions with the Trolley Problem (Foot, 1967). This is a well-known ethical dilemma in philosophy, in which a train with brakes that have failed is heading toward five people on the tracks, and there is no escape. The only option that one has is to pull a lever and change the direction of the train onto a different track on which there is only one person. The dilemma is: should one pull the lever?

The problem has the same issue as the first as one must consider the number of people involved when making ethical decisions. The second problem is more complex, however, but it is introduced once children have had practice with all of the pieces of play equipment. By introducing the initial division of “yes” or “no” answers, children must justify their reasoning to each other and understand the underlying concepts behind the question from their own and others’ point of view.

Case studies

The following section reports on two case studies of the Playground of Ideas being used as an intervention in classrooms. The research project was carried out as an iterative, design-based process, which was chosen because Design Based Research (DBR) aims to discover not just whether a learning process has worked or not, but to discover how and why this is the case (Brown, 1992). In addition, McCandliss Kalchman and Bryant (2003) highlight that DBR is a collaborative dialogue of methods which is particularly important for a classroom-based intervention in which there are many stakeholders. This research project took the stance that the contributions of all of the participants are key to understanding how the intervention works.

Case study 1: Does the design of the Playground of Ideas work conceptually for the children? The first iteration was carried out in order to ascertain:

- If the language and imagery of the playground equipment was understood by children;
- If the philosophical questions chosen were suitable for children in Key Stage 1;
- How the classroom teacher perceived the Playground of Ideas sessions.

In addition, I wanted to clarify practical classroom matters relating to the intervention, such as the length of the sessions and the suitability of the activities chosen.

The first iteration was carried out in a Year 2 classroom in a primary school in England. I taught the sessions myself as a researcher-practitioner, with the classroom teacher observing in order to make suggestions about the material. I interviewed the teacher midway through the intervention and produced a questionnaire for the children, as well as carrying out a group interview with selected children at the end of the intervention. I also kept a researcher's reflective journal throughout in order to be able to compare my experiences of teaching the sessions with the responses from the teacher and the children. This is concordant with a DBR methodology which allows for researchers to be "research impressionists" (Kelly, 2004, p. 115), like their artistic counterparts the Impressionist painters being able to portray naturalistic, realistic images. This implies a qualitative perspective in which the research reflects the experiences of the various participant groups such as children and their teachers, as well as reflecting the researcher perspective.

Case study 1: Evidence for effectiveness

Children are able to develop abstract thinking skills through the Playground of Ideas

In the interview with the class teacher (CT), the CT made a number of comments which indicated that the playground images were understood by the children. She identified that they provided a scaffold for the children, as they "kept looking at them and trying to use them."

There was also an indication that children were using the skills that they developed in the sessions to think about issues in other curriculum subjects. In

the last session, the children came in from lunch and a number of them spoke about their science lesson. They had been growing vegetables in the school garden and they were asking about what had come first – the vegetable, or the seed from which it had grown. They were actively engaged in this inquiry, and they identified it as a philosophical question. From their comments, the basis on which they did so was that they identified it as a question to which they thought there might not be one answer, and that they had different ideas with good reasons for both sides. This indicates that they were beginning to identify the philosophical basis of other curriculum subjects.

Children become more confident in sharing their ideas

Excerpt from the group interview with six children and the researcher (LK)

JANE: Yes, I like it because everybody has, they can actually, like I like the slide because sometimes I do get very nervous of talking so it kind of encourages me, um, cause I have stage fright sometimes.

LK: OK.

JANE: And it encourages me to talk.

JONATHON: Are you on the bottom slide then?

LUCY: I think she's on the top because if you're on the bottom slide then you can just go down it like – boring.

LK: (to Jane) What do you think?

LUCY: Cause the top bit's the scariest bit.

JANE: I think probably the top.

The exchange above is taken from the group interview. It indicates not only that a child (Jane) who was not confident about sharing her ideas is reassured by the slide, but also how children's understanding can be enhanced through their interaction with one another. When Jane says that she is “nervous of talking,” Jonathon demonstrates misunderstanding by asking if Jane was on the “bottom slide.” A number of children had this conception that the top slide was for if you were happy to talk and the smaller slides were for if you weren't feeling brave. If this were an individual interview, then as the researcher-practitioner I would have corrected Jonathon, but in this case it is Lucy who steps in and corrects Jonathon. My contribution is quite limited in this exchange, and most of the talk is between the learners.

The teacher has a better sense of her class's ability to take part in philosophical discussion

A number of the teacher's comments in interview revealed that she hadn't considered the children as able to discuss these questions; however she also made a number of comments which indicated that the sessions were a transformative experience for her in the way that she viewed her class. For example, despite her view that the “questions seem quite grown up and challenging,” she also expressed the view that she was “really surprised” and the children responded “really positively and quite maturely.” She also referred to the skills that the

children were developing as “exactly where they need to be.” Therefore her professional experience is that the sessions are developing skills which are in line with their age group but are also challenging.

In addition to this, the class teacher (CT) indicated in her interview that she was also beginning to think about the ways in which philosophical questions can apply to other curriculum subjects:

CT: I was thinking about maybe how you could use the ones from fairy tales, you know, from books that they're reading, characters. We do Jack and the Beanstalk, I was thinking afterwards well actually there were some philosophy questions that could have come out of that. Should Jack have stolen the hen – was it OK that Jack stole the golden hen?

(excerpt from interview with the class teacher)

Case study 2: Does the Playground of Ideas (PoI) work as an intervention across contexts? This iteration was carried out in order to understand if:

- The resource pack which was produced following the first iteration was able to be used by other teachers;
- Children had a comparable conceptual understanding of the PoI when it was taught by a nonspecialist teacher;
- The PoI had an impact on teaching practice.

In contrast to the previous case study, in which I took the role of researcher-practitioner, in this iteration I was specifically interested in whether or not I had produced a resource pack which could be used as a resource which stood alone from researcher input. Participants self-selected following an advertisement on social media, and resource packs were sent out to these teachers. This case study reports on the use of the resource pack in one primary school in England which was selected because it is a large urban school with a broad demographic of children. The class teacher had 26 years of teaching experience, but had not taught any philosophy with children previously.

I asked the children and the teacher to carry out a questionnaire post-intervention. The children's questionnaire was the same as for the children in the previous case study because I wanted to be able to compare the children's perceptions of the PoI across contexts.

Case study 2: Evidence for effectiveness

Children understand the concepts in the PoI when taught from the resource pack

The questions in the children's questionnaire were asked in order to clarify their conceptual understanding of specific pieces of playground equipment. [Table 1.2](#) below presents a selection of comments from the questionnaires from both case studies, indicating comparable responses from children who participated in sessions taught by me and by the class teacher. The responses

TABLE 1.2 Levels of children's understanding of the slide and climbing frame

<i>Level of understanding (with criteria for level)</i>	Iteration 1 <i>(Researcher-led)</i> % of responses	Iteration 2 <i>(Teacher-led)</i> % of responses
Slide		
1. No mention of being brave or talking	4.2	12.5
2. Mention of being brave or talking but appearing to misunderstand	12.5	8.3
3. Mentions being brave OR talking	16.7	16.7
4. Mentions being brave in connection with talking	50	45.8
5. Mentions the criteria for previous levels and adds more details	16.7	21
Climbing Frame		
1. No mention of building on or adding ideas	8.3	4.1
2. Mentions adding to or building but misunderstanding	0	4.1
3. Mentions adding on or climbing up	20.9	12.5
4. Mentions adding on or climbing up in connection with sharing ideas	50	54.1
5. Mentions the criteria for previous levels with specific reference to the sentence starters	20.9	25

were coded into levels of understanding of the connection between the play equipment item and the specific skill it represents. The table above indicates the criteria for each level and the number of responses per level in the researcher- and teacher-led iterations.

In both cases, the majority of children were at level 3 or above, indicating that children are able to connect an item of play equipment with the thinking skill it represents. I interviewed the children whose responses were coded at level 1 or 2. A large number of these children were able to verbally indicate a greater understanding than they had written, indicating that the barrier was the questionnaire.

The table below gives some examples of answers to the question “Why do we go on the climbing frame?” The number in brackets is the level at which it was placed according to the criteria above.

The responses to the second question in [Table 1.3](#) exemplified the children's responses in both sets of questionnaires. Three categories of response emerged from the questionnaires: some referenced individual pieces of play equipment that they particularly liked, while others focused on the discussion questions themselves. A third category of response was a reference to “Would you rather...?” questions, which were a warm up game played before each session. The coding of responses indicated that the children's responses in both case studies were evenly split between these three aspects of the PoI sessions.

The PoI resources have a positive impact on teachers' practice

Yes. We teach maths mastery and part of this is children being able to confidently explain their reasons. Playground of Ideas helped with this as the children were encouraged to share their ideas and listen to each

TABLE 1.3 Selected responses from the children’s questionnaire

Question	Case study 1	Case study 2
Why do we go on the climbing frame?	“Adding an idea to another idea. So we’re trying to get to the top” (Emma) (4) “We can add to people’s ideas (Lizzie)” (3) “To follow on from what other people say and climb up the climbing frame” (Peter) (5)	“To climb to the top and be above” (Max) (2) “To climb on top of people’s ideas” (Chloe) (4) “To go on top of each other’s opinions to the top” (Elsie) (4)
What did you like talking about?	“The Swing when you get to choose what side you’re on” (Caleb) “I liked talking about the hamster meat and going on the swing” (Sky)	“The slide because it was being brave and I like being brave” (Chloe) “I liked talking about the people on the train track” (Oliver)

other. It helped develop their confidence as well as their listening and speaking skills. I refer to the equipment in other lessons I teach and the children speak clearly and confidently when joining in discussions. It was great to see two very shy children gain confidence and join in with the last few Playground of Ideas lessons.

(excerpt from questionnaire from the class teacher)

The above extract is taken from the teacher’s questionnaire as a response to the question “Do you think it changed your teaching? In what way?” The teacher makes a clear link between the skills being developed in the PoI sessions to other curriculum subjects, specifically maths. Boaler’s (1999) work has shown that a collaborative approach to maths results in higher attainment in exams taken at age 16 because children have developed the skills to “think for themselves, select relevant information from irrelevant and work together proactively” (Kerslake & Rimmington, 2017, p. 28). This is corroborated by Askew’s (2012) work, which takes the approach that “talk is central to mathematics lessons” (p. 136).

This is concordant with the findings from one of the best-known recent studies into philosophy with children, a randomized control trial conducted by the Educational Endowment Fund (EEF) (2015), which looked at children’s curriculum attainment following a philosophy with children intervention in which children took part in Community of Inquiry philosophy sessions in schools. Children who received the intervention in Years 4 and 5 (age 8 and 9) then went on to make additional gains of between 2 and 4 months in English and maths when taking their Standardized Attainment Tests (SATs) at the end of Year 6 (age 10 and 11).

This has been heralded by the Society for the Advancement of Philosophical Enquiry and Reflection in Education (SAPERE), who conduct a great deal of philosophy with children in-school teacher training, as a good indication that philosophy can allow children to improve in curriculum subjects with no additional input in those subjects. The EEF study found that these gains in

testing were particularly the case for disadvantaged children, indicating that explicitly taught collaborative thinking and discussion skills are important to addressing inequality issues within education because the acquisition of these skills underpins so much else (Alexander, 2004; Mercer & Littleton, 2007; Michaels et al., 2008).

Concluding remarks

The responses from teachers and children indicate not only a development of skill but also a change in disposition. The teachers' comments indicate an increase in the children's confidence, and also in the way they listened to each other. The change in disposition is not limited to learner-learner interaction, but also applies to the ways in which the teachers perceive the discursive abilities of the children in their classes. A Community of Inquiry approach therefore has the potential to change teachers' practice, which has also been noted by other teachers and researchers who have undertaken such sessions in their classrooms (Roche, 2011), with Scholl (2014) recognizing that "crucial" to a Community of Inquiry approach is that teachers "genuinely view themselves as learners" (p. 90). Both teachers in these case studies also considered how to adapt other curriculum subjects to incorporate Playground of Ideas material, indicating that they were also reacting as learners and that this approach therefore has an impact on classroom culture.

These case studies indicate that a framework for collaborative inquiry based on play equipment is effective in that children are able to take part in more sophisticated discussions in terms of their talking and thinking skills. They have become more aware of their own and each other's contributions to discussion, which is commensurate with both Ennis's and Facione's definitions of critical thinkers who demonstrate a range of skills. A key element of this is that they utilize these skills to develop an inquiry as a community, where both teachers and learners exhibit the dispositions that are prerequisite for critical thinking to flourish.

The design-based approach has allowed "continuous evolution of design as it is tested in authentic practice" (Anderson & Shattuck, 2012, p. 19), meaning that the perspectives of teachers and learners have featured prominently in the design and redesign of the Playground of Ideas. Design research also, however, requires a quantitative as well as qualitative element, so the next iteration of the Playground of Ideas will be to collect measurement data on how children's collaborative skills improve as a result of taking part in Playground of Ideas sessions. This data will particularly feature the discursive abilities of disadvantaged children in order to ascertain if the skill development and change in disposition (e.g., confidence to share ideas) has an impact on this group's collaborative contributions to group tasks.

The Playground of Ideas: Thinking and talking together in Key Stage 1 has since been published as a complete teaching resource by Cambridge Thinking Press.

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