

What kind of questioning and adult-child interactions extend children's thinking and language?

Reconsidering Questioning in the Pre-School Setting

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The most effective early years pedagogues encourage talk with adults and amongst children by keeping with the child's interest and attention. One of the most common methods of prompting interactions with children in the 'playroom' involves the use of questions, but how often do we as pedagogues think about questioning and how it effects children's language development and their ability to think and reflect? There is great potential to increase children's capacity to learn from the activity they are involved in through careful adult-child talk, and questioning is one of many strategies that can either support and encourage children's learning or limit or stop it in its tracks.

The effectiveness of verbal interactions to promote development of children's language and thinking skills relies heavily on the level and depth of the child's involvement in the activity, as well as the activity itself. Planning appropriate and relevant experiences and recognising when to enter and support children's spontaneous learning will increase the opportunity for quality interactions. Interactions involving Sustained Shared Thinking have been identified as some of the most effective in terms of supporting children's learning. Sustained Shared Thinking is defined as the result of two or more individuals (adults and children) working together in an intellectual way to solve a problem, clarify a concept or evaluate activities. It requires that both or all participants must contribute to the thinking and that the thinking must be extended (see further readings at the end of this article). The following is a good example of an episode of Sustained Shared Thinking in which the adult is *guiding* the children's learning, rather than *dominating* it. Look at how children can be encouraged and supported by adults in the process of making sense of the world,

Example 1:

Grace (4):	"Well how did God make us?"
ADULT:	"I don't know. What do you think?"
Grace:	"I don't know."
ADULT:	"Well how would you make yourself?"
Grace:	"I would make myself happy."
Tom (4)	"I think when God made us, we made God."
ADULT:	"He putted (sic) our bones in first and then he putted our blood on the bones and then he putted our skin on."
Grace:	"No - he opened up our bones and put the blood in us."
Tom:	"No - if he put it in our bones, the blood wouldn't come out."

Example 2:

Abid (4) : “What kind of skeleton animal is that?”
ADULT: “They think it’s a dinosaur. What do you think?”
Abid: “A dinosaur.”
ADULT: “Is it really?”
Abid: “Looks like it.”
ADULT: “Let’s look at its head.”
Kylie (3:6): “It looks like it’s dirty. It’s very old.”
ADULT: “How can you tell it’s very old?”
Kylie: “Cos it is .. ‘cos all the dirt around it.”
ADULT: “It does look very dirty I must say.’

In the following example we can see how an adult can encourage speculation through questioning, both children are 4-years-old.

ADULT: “If I take one side away, what different shapes can you make?”
Nelson: “A circle shape.”
ADULT: “You might be able to make them into a circle. Try.”
ADULT: “If I give you that piece ... Can you make a different shape...? What can you make Nelson?”
Nelson: “Rectangle... Look I’m making it. (He makes a square). Done it!”
Nadia: (who has also made a square) “And me!”
ADULT: “What shape is it?”
Nelson & Nadia (together) “Square!”

In this example the children are literally and mentally playing with facts. As they grapple with the task, they are supported by the adult who uses questions that encourage the children to test out their own hypotheses. These children are motivated by the pursuit of learning and discovery for their own sake, and their excitement, captured here through their language, “Look, I’m making it!”, is proof of this motivation. They are not being told what a square is, nor pushed into identifying it. Instead they are finding it out for themselves and from the “ers” and “ums” of not knowing follow the “ohs” and “ahs” of learning – the sounds of *meaning being made*.

Now take the above example and compare it with another experience involving shapes found in a different Foundation Stage setting,

ADULT: “Oh. This week we’re going to carry on talking about shapes. We’re going to look at one like this (draws triangle in air) Do you know what that shape is?”
Britney (4:2): “Square?”
ADULT: “No, this is a square (draws in air)”
Britney: “A circle?”
ADULT: “No, this is a circle (draws in air). It is called a triangle.”

In this example, the child is obviously struggling and her hesitation is highlighted by the fact that her responses are being expressed as questions. The child’s verbal contribution has been reduced to a cautious

one-word guess of what the pedagogue has in her mind. The fact that the child is answering in the form of a question suggests that, not only is she uncomfortable in this learning experience, but also that she is aware that there is a ‘correct answer’ to be found. The adult’s question, “What shape is this?” and her evaluation of each of the child’s incorrect guesses, confirms for the child that there is a right answer, thus promoting the view of adult as expert and of learning as remembering rather than investigating. If children are to be encouraged to think and reflect en route to becoming lifelong learners, it is important that they be offered a less fixed view of the world, one where curiosity and wonder, rather than correct solutions and consensus building, fuel their investigations.

What kind of questions do pedagogues ask in the Foundation Stage?

A recent study, carried out at the Institute of Education, University of London, involved the analysis and review of a random sample of questions observed in settings (see Researching Effective Pedagogy in the Early Years (REPEY) project). The sample was extracted from over 400 hours of observations carried out in 14 early years settings, all of which were identified as *moderately good* to *effective* according to child outcomes. It involved 28 Foundation Stage pedagogues representing all types of group providers, e.g. playgroup, receptions, nursery class and schools, private and state daycares and integrated centres. A total of 1,967 questions were analysed and the results were quite unsettling. The table below summarises these results.

Early Years Pedagogues’ Questioning Practice				
Rhetorical/ Task Supervision	Closed	Open		Total
1195	671	101		1,967
60.8%	34.1%	5.1%		100%

Of the total number of questions analysed, 34.1% were closed. ***Closed questions*** are those questions that have one correct response, often known by the person posing the question, e.g. “What colour is this piece of paper?” While such questions do serve an important purpose, including checking children’s knowledge and maintaining their attention, their overrepresentation in early years’ settings may be a cause for concern. Because such questions, in the main, reduce children’s communicative role to short, often one-word responses, and because these questions rely on a child’s capacity to recall, the opportunity for thinking, reflecting and/or speculating is diminished.

In contrast, open questions – which evidence shows, offer considerable encouragement for speculation and promote *Sustained Shared Thinking* – made up a mere 5.1% of the sample of questions analysed, that is only 101 of the total 1,967 questions posed by adults to children. ***Open questions*** are those questions that normally have more than one possible answer and can promote speculation, e.g. “I don’t know. What do you think?”. Studies have found such questioning to be associated with better cognitive achievement,

which will be connected to the opportunity such questions offer for children to grapple verbally with ideas and concepts still forming in their minds.

Debates about ‘good’ versus ‘bad’ questions, often translated into ‘open’ versus ‘closed’ questions, seems to simplify the issue. It suggests that good questioning relies on a particular type of question, which would mean we need only to create a manual with all perfectly worded questions and quality verbal interactions would naturally follow. However, the evidence suggests that at their most successful, good questions rely on good follow up by the participating adult. The potential of a question is determined by the purpose of the adult asking. If the adult is interested in arriving at a ‘correct answer’, then there is little room for exploration in the sense of wrestling with ideas and misconceptions towards discovery and understanding. On the other hand, if the adult is interested in promoting the gradual process of discovery making, then his/her questioning will be only one part of a larger approach to extending a learner’s meaning making. While open questions do offer more opportunity for higher order thinking and speculation, without an adult’s encouragement and patience, even the most open-ended questions can be reduced to one word answers.

Here is one final, yet incomplete example. In this example we see the beginning of what could quite easily be turned into a sustained episode.

ADULT:	“Let’s look through the photos and see if you’re on any.” (She starts to put the photos in front of Ben one at a time).
Ben:	(points to a photo with 2 goslings) “Ducks!”
ADULT:	“Why do you think they’re ducks?”
Ben:	(tapping the photo) “I see’d the feet!”

As you will note, the child’s error, “ducks!”, is not met with an evaluative comment. Instead of giving the child the correct answer (gosling), the adult asks an open question and in doing so, she manages to elicit the child’s reasoning for his answer; he identifies the webbed feet of ducks. What could a pedagogue do next in order to sustain the conversation and extend this child’s learning?

Learning how to ask questions, to sustain shared thinking and to promote reflection and speculation relies on opportunity and practice.

Functions of Questions

In early years settings, questions have two overall functions:

- Language development
- Thought development

Enquiry Questions

Try these questions to encourage children to reflect and to extend and sustain their thinking

- How could you find out?
- Do you think everyone would think the same? Do you think Gregory would think the same?
- What do you think is happening?
- I don't know, what do you think?
- Can you tell me more about that?
- How can you make this, build this?

Further Reading

For reference see *The Effective Provision of Pre-School Education* by I. Siraj-Blatchford, K. Sylva, B. Taggart, P. Sammons and E. Melhuish. (Order online £11.00 <http://k1.ioe.ac.uk/schools/ecpe/eppe/eppe/eppepubs.htm>)

Researching Effective Pedagogy in the Early Years by, Siraj-Blatchford, I., Sylva, K., Muttock, S., Gilden, R. & Bell, D. (Copies can be obtained from 0845 60 222 60 £4.00)