

QUESTIONING IN TEACHING: ARE ALL QUESTIONS ALIKE?

'SKIP Research Bites' is a series of short summaries based on findings from the Singapore Kindergarten Impact Project.

What does research tell us?

Questioning is one of the most commonly used strategies for fostering comprehension in young children (McKeown & Beck, 2003). Research suggests that certain types of questioning promote positive aspects such as vocabulary growth, classroom engagement, higher order thinking and extended conversations.

In particular, open-ended questions elicit longer responses than yes-no types of questions. Questions also differ in the level of thought that goes into answering them. Some questions can be answered using the information provided by the teacher and would generally require concrete, factual, and straightforward responses. These are referred to as *Literal Questions* [LQ]. *Inferential Questions* [IQ] are those that can be answered by thinking beyond the information directly provided by the teacher (van Kleeck, 2008).

Questioning is key in promoting quality interactions which in turn provide opportunities for teachers and children to build on ideas and concepts. Questioning is also heavily used in the following read-aloud activities to develop language and literacy skills:

1. **Dialogic Reading.** Teachers involve a small group of children in the reading process by asking questions and making predictions and connections.
2. **Shared Book Approach.** Teachers use Big Books and ask literal questions at the first reading. They can then ask inferential questions to relate children's personal experiences to the characters and events in the story during subsequent readings.

Below are examples of a literal and inferential question from our classroom observations:

Literal question (Level 1): Is Raj smiling?	➡	Short, correct response: "No."
Inferential question (Level 3): How do you think the character feels? How do you know?	➡	Long, justified response: "I think he is sad because he lost his toy."

Learn More!

McKeown, M. G., & Beck, I. L., 2003. Taking advantage of read-alouds to help children make sense of decontextualized language. In A. Van Kleeck, S. A. Stahl & E. B. Bauer (Eds.), *On reading books to children* (pp. 159-176). Mahwah, NJ: Erlbaum.

MOE, 2013. NEL Educators' Guide, Volume 4: Language and Literacy.

Tompkins, V., Zucker, T. A., Justice, L. M., & Binici, S., 2013. Inferential talk during teacher-child interactions in small-group play. *Early Childhood Research Quarterly*, 28(2), 424-436.

van Kleeck, A., Vander Woude, J., & Hammett, L., 2006. Fostering literal and inferential language skills in Head Start preschoolers with language impairment using scripted book-sharing discussions. *American Journal of Speech-Language Pathology*, 15, 85-95.

Van Kleeck, A., 2008. Providing preschool foundations for later reading comprehension: The importance of and ideas for targeting inferencing in storybook-sharing interventions. *Psychology in the Schools*, 45(7), 627-643.

Contributors:

Beth O'BRIEN*
Senior Research Scientist
beth.obrien@nie.edu.sg

Malikka HABIB
Research Assistant

Nurul Taqiah YUSSOF
Research Assistant

NG Siew Chin
Research Assistant

SUN He Sabrina
Research Scientist

What is this study about?

We wanted to find out:

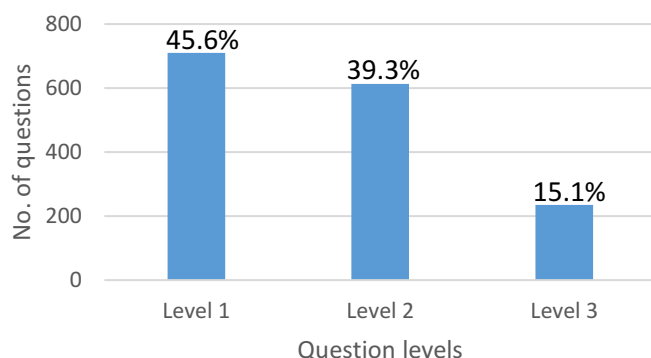
- What types of questions do teachers typically use in English Shared Book Reading at K1?
- What types of questions do teachers typically use in Mother Tongue Language (MTL) large group activities at K1?

The sample of the study came from 38 English, 10 Chinese, 6 Malay and 4 Tamil language classrooms. Using a coding tool adapted from Tompkins et al. (2013) we observed whether and how often teachers asked questions at these levels:

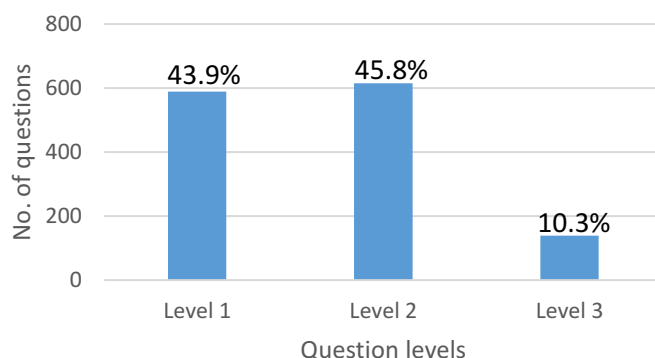
- **Level 1 [LQ] – Label & locate:** Children were asked to label or name items in classroom settings or materials, e.g. *What can you see in the classroom?*
- **Level 2 [LQ] – Describe, recall and complete sentences:** Children were asked to recall information and prompted to complete words and sentences, e.g. *What did we learn yesterday?*
- **Level 3 [IQ] – Identify causes, explain and reason:** Children answered questions by synthesising or comparing and contrasting information, made judgements about feelings and behaviours, made predictions and/or formulated solutions, e.g. *What do you think made Jamie angry in the story?*

What did we find out?

Teachers' Questions During English Shared Book Reading



Teachers' Questions During MTL Large Group Sessions



Research Question 1

What types of questions do teachers typically use in English shared book reading at K1 in our sample?

In the K1 English classrooms, level 1 questions were the most typically used, and level 3 questions were used least. This was observed during Shared Book Reading (SBR) sessions. SBR was examined because it was a popular activity in the English classrooms.

Research Question 2

What types of questions do teachers typically use in MTL large group activities at K1?

In the K1 MTL classrooms, there was a relatively similar number of level 1 and 2 questions used. The pattern of fewer level 3 questions is similar to the English sessions, but more level 2 questions were used in MT classrooms. This may be because we observed both SBR and other activities in the MT sessions.

An example of level 3 inferential questions used as translated from a Malay language classroom:

Teacher: What can you do when the weather is warm?
Child: Play kite.
Teacher: If it's windy but raining can you fly a kite?
Child: No.
Teacher: Why not?
Child: Raining.

What does it mean for teaching and learning?

The Nurturing Early Learners (NEL) Framework highlights the importance of using questions where teachers are recommended to select the appropriate levels of questions depending on children's levels of thinking and expressive abilities, as well as the learning context and objective.

While children with lower vocabulary abilities may benefit from more literal questioning, teachers should consider using some inferential questions to promote their higher order thinking. The example above presented an inferential question which engaged children in critical thinking, such as making judgments and reasoning. This demonstrated that although the child provided only one- or two-word responses, the responses are indicative of reasoning about a warm-weather activity.

Therefore, teachers should use a variety of questions that go beyond eliciting the children's responses, to encouraging vocabulary growth, higher order thinking and extended conversations. These questions can be posed during the different activities throughout the day to provide children with ample opportunities besides the MTL large group or EL SBR sessions:

- Lunch / Snack: What are we having today? Why is it important to eat fruits?
- Outdoor Play: What happened at the playground just now? How can we be more careful at the playground?
- Dramatic Corner: 'Doctor', what happened to bunny? Why is bunny sick?

