



Co-constructed inquiry in early childhood education

ECE resources

Co-constructed inquiry approaches to curriculum in early childhood settings involve drawing out and attending and responding to children's interests, particularly their working theories, as a source of curriculum development. This can provide a way to respond to children's interests and the funds of knowledge, skills, and understandings they bring from home, but also to connect a group of learners, teachers, and families in collaborative learning. Interest-based inquiries can strengthen the connections children have with each other and with community, particularly where they involve excursions, visitors to the setting, or sharing learning in a culminating event. While a co-constructed inquiry approach is most often used with older children, research shows that inquiries can be effectively conducted with infants and toddlers too, with learning outcomes related to developing younger learners' vocabulary, concept development, and shared exploration. When the stimulus for a project is something familiar to children and related to their funds of knowledge from home, older children are able to draw on their existing understandings about the topic to generate their own questions and plan activities for investigation. This encourages children to engage deeply as they direct the project with their personal interests and questions.

Collaborative communities of inquiry are focused around participation, shared purposes and goals, and high levels of intersubjectivity (shared focus and understanding) between participants. Each child is a resource that can offer questions, comments, and ideas that link new experiences with existing understandings, and spark new avenues of inquiry. Inquiries build on the ideas and interests of children in the group, but are not entirely dependent on these. There is also a place for negotiation and collaboration with teachers and families. Teachers' and families' interests might be included, as well as people, relationships, and events in the community, or family and community values and concerns. Teachers might negotiate a place for developmental activities based on their appraisal of what is important for children to learn next, or on family aspirations, or they might select a storybook as the impetus for exploring some key ideas or concepts that are perhaps outside of children's experiences. Inquiries enable teachers, families, and children to bring their whole, authentic selves and all of their lived experience to the curriculum.

Bringing children's (and teachers') diverse yet interconnecting interests and funds of knowledge together has much potential for the creation of exciting and somewhat unpredictable curricular programmes. The aim when developing collaborative inquiries in an early childhood setting is to develop webs of ideas that resonate for and excite a number of contributors, and that capture children's attention, hearts, and minds. Rather than seeking big projects, teachers might find inspiration in ordinary moments, which means becoming alert for the interesting questions and observations that reveal children's thinking: 'Do butterflies have a heart?' or 'those two trees must be friends'. Following these unexpected and unplanned-for moments can create shared interest in a group of children, and become a starting-point for tentative planning¹. Here the teacher's response can be carefully crafted to support investigation, turning questions to the wider group for consideration: 'That's an interesting question/observation – how could we find out?' Teachers can encourage 'possibility thinking', which involves asking children what might be, instead of what is.

Inquiries are often a long term approach to curriculum design, and aim at connecting a range of experiences, people, and places to cater for a broad range of learning outcomes over time. This can

promote continuity of learning. However, they work best when planning intentions are flexible, dynamic, and open-ended, rather than fixed. This does not mean there is no planning but that plans are provocations to get things started; beyond that teachers engage in 'pedagogical improvisation', noting what captures children's interests and the questions they are explicitly or implicitly asking. Teachers focus on responding to and extending children's interests, questions, and ideas by provoking and supporting investigations, problem-solving, and representation of knowledge. For example, when children show interest in monarch butterfly caterpillars, teachers can provide resources (such as magnifying glasses, clipboards and paper, cameras, reference and picture books) but also, importantly, ask questions and offer suggestions that will help children to notice and learn some key concepts related to these creatures. However, the inquiry may evolve into passionate discussion of the patterns on the caterpillars, and of other caterpillars children have seen in their own gardens. With the children's input, the project might move from scientific skills for identifying and classifying creatures into an art and design project. Teachers might encourage the children to come up with theories for why caterpillars have different patterns, and then build on the ideas they hear from children about how it might be to do with what the caterpillars eat. They might be invited to create a catalogue of 'caterpillar coats' and imagine the 'recipes' the caterpillars might use to get these colours.

Note how there is no intention to hijack an interest in a superficial way to meet pre-specified learning intentions² (reading insect themed-books for literacy, counting and sorting plastic insects for mathematics and science, butterfly printing and symmetry in art, etc.), but instead a focus on real, meaningful questions that emerge within children's thinking. There isn't a discrete set of information or skills that must be conveyed or acquired, nor is there really a determined place to stop (as in when certain learning has been achieved). This is partly because a co-constructed approach presents knowledge as in flux and not fixed, capable of change and construction, rather than, for example, residing in the authority of the teacher as expert. This can help children develop views of knowledge as shifting, contextual, and multiple - varied according to as many perspectives as the group can muster. Inquiries recognise the messiness of learning, and the interconnections and local complexity of knowledge, dispelling assumptions that facts can be easily packaged and delivered. Learning through inquiry invites and values complexities, unexpected events, and surprises, and interconnects learning with its context in a way that gives value to local and indigenous knowledge.

Inquiry projects can take place in small groups, and involve a range of resources which encourage children to represent their ideas related to the inquiry topic through a range of media, including drawing, writing, construction, and dramatic play. Small groups provide better opportunities for children to investigate, express ideas, and problem-solve than larger groups. Offering a range of options for exploration and representation is an inclusive pedagogy that can engage diverse groups of children in investigation of an idea. In addition, children who can present an idea or concept in different ways are thinking deeply about it, and likely understanding it very well.

References

- Arthur, L., Beecher, B., & Death, E. (2025). *Programming and planning in early childhood settings*. Cengage Learning Australia.
- Clark, A. (2023). *Slow Knowledge and the Unhurried Child: Time for Slow Pedagogies in Early Childhood Education*. Routledge.
- Fleer, M., March, S., & Suryani, A. (2024). A cultural-historical study of how educators create conditions for infant and toddler learning in science. *Science Education*, 108, 1495–1518.

Hedges, H. (2010). Whose goals and interests? The interface of children's play and teachers' pedagogical practices. In L. Brooker & S. Edwards (Eds.) *Challenging Play* (pp. 25-38), McGraw-Hill Education.

Endnotes

- 1 Clark, 2023.
- 2 Arthur et al., 2025.

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