OUTCOME 4: CHILDREN ARE CONFIDENT AND INVOLVED LEARNERS

Children learn from the time they are born. When they are confident and involved in learning they are more likely to experiment and explore and to try out new ideas. When children are confident learners they are able to master new tasks and build their understanding of the world around them.

Children are more likely to be confident and involved learners when their family and community experiences and understandings are recognised and included in the early childhood setting. This assists them to make connections and to make sense of new experiences.

Children use processes such as exploration, collaboration and problem solving across all aspects of curriculum. Developing dispositions such as curiosity, persistence and creativity enables children to participate in and gain from learning. Effective learners are also able to transfer and adapt what they have learned from one context to another and to locate and use resources for learning. Children who are confident and involved learners are increasingly able to direct their own learning.

When children are actively engaged they develop not only positive dispositions but also concepts and the creative thinking and inquiry processes that are necessary for lifelong learning. Play-based experiences provide opportunities for children to explore, experiment and interact with other children and educators as they share ideas and negotiate meanings. Play also allows children to revisit and consolidate new learnings.

4a: Children develop dispositions for learning such as curiosity, cooperation, confidence, creativity, commitment, enthusiasm, persistence, imagination and reflexivity

Dispositions are defined as ‘relatively enduring habits of mind and action’ (Katz & Chard, 1989, p. 30). Children develop dispositions for learning when they interact with others and explore and question with encouragement and support. Learning experiences that are relevant and meaningful to children promote positive dispositions.

When children are curious they explore environments, manipulate materials, investigate concepts and pose questions. For example, babies explore materials in the sandpit, pour sand into buckets and explore and question the properties of sand as they fill and empty buckets of different sizes. Older children may be curious about resources such as scales, tape measures and magnifying glasses and investigate how they can use these to further explore their environment. Children also explore various art mediums such as paint, music and clay.

When children are cooperative they listen to and negotiate with others. Babies take an interest in and respond to others. With adult support and scaffolding, children learn to listen to others’ explanations and ideas, solve problems collaboratively, negotiate and work towards shared goals.
When children are **confident** they question, respond to others, take risks with their learning, try new ideas and resources and explore through trial and error, problem solving and investigation. They engage in child-initiated inquiry and research, make decisions and share their learning with others.

When children are **creative and imaginative** they play with a variety of materials and use them in innovative ways. Babies explore materials with all their senses and find creative ways to use them. Older children use a range of materials to represent ideas and create their own stories, ideas, characters and scenarios.

When children are **committed and persistent** they persevere with activities, overcome challenges, show determination and apply a variety of strategies to solve problems. Babies and toddlers often show interest in particular objects and engage in repetitive play. Older children pursue their own interests, often in collaboration with peers, remain focused on tasks even when faced with obstacles, solve problems and share ideas with others. They can return to tasks and projects over an extended period of time, and sustain interest and experience the pleasure of persisting to complete complex tasks.

When children are **enthusiastic** they are spontaneous, enjoy a variety of tasks and engage in varied play situations. Children often have particular interests and may be passionate about a particular topic, sport or popular culture character or narrative.

When children are **reflexive** they are aware of themselves and their relationships with others. They reflect on their own learning and are open to new ideas. Older children engage in self-reflection and analysis, for example analysing the impact of their behaviour on others and analysing their own learning.

To support children’s dispositions towards learning educators can:

*For babies and toddlers in particular:*

- provoke children’s curiosity and wonder by providing interesting objects that they can explore safely
- draw children’s attention to interesting natural phenomena and model descriptive language in talking with children about how objects look, feel and smell
- show genuine interest in children’s investigations and promote dispositions such as curiosity and persistence by describing their actions and processes.

*For all children:*

- draw on understandings of each child to provide experiences with an appropriate level of challenge
- provide large blocks of time and sufficient space for children to investigate, create, reflect, collaborate, revisit their ideas and co-construct knowledge and investigate different room arrangements and routines that might allow groups of children to work on projects over a number of days.
• display natural objects with magnifying glasses, factual books and internet sites to invite further investigation and clipboards with paper and pens to encourage children to draw and/or write about what they observe

• share photographs, videos and websites depicting the work of a variety of artists and involve children in discussions about their innovative use of materials, ideas and techniques

• record children’s creativity, such as their spontaneous singing, listen to the recording with the singer, and talk about musical concepts such as beat and rhythm and provoke further responses with comments such as ‘You used a strong rhythm in that song. I wonder how you could repeat that using an instrument?’.

• plan opportunities for children to engage in interest-based investigations and long-term projects where they investigate ideas and where children, educators, families and the local community learn collaboratively

• join in children’s investigations, modelling specific language and prompting older children to reflect on and articulate their learning processes and clarify their thinking

• give meaningful feedback that encourages children to listen to the ideas of others, maintain focus, reflect on their own learning strategies and group processes and use the insights gained to further develop effective learning strategies

• model dispositions such as curiosity, enthusiasm for learning and reflexivity by sharing interests and questions with children and discussing and reflecting on their own learning

• support children to persist at tasks by sitting with them and talking about what they are doing, giving positive feedback, reminding them of what they have already achieved and supporting them to think about the next step

• display photographs and samples of children’s investigations, constructions and art works and encourage children to talk about and reflect on their actions and experiences.

Discussion starters
1. After investigating some shells with a magnifying glass, Jacob (aged 4) decided that he wanted to draw one. He was dissatisfied with his first attempt and screwed it up and put it in the bin. The educator offered assistance with comments and questions such as ‘Let’s look closely at the shell – what shape is it? What sort of lines can you see?’ and ‘Maybe here is a good place to start. Maybe you could make this line that goes around the edge of the shell’. She also suggested to Jacob that he pick up and feel the shell. Together they traced the outline of the shell with their fingers, discussing size and shape, making comments on how the shell was bigger at the bottom and pointy at the top. Jacob remarked that the shell had a spiral, indicating with his finger that it went right up inside the shell. He described the bumps on the shell as sharp and they talked about what sort of lines you could use to make sharp bumps. He then began his second attempt. This second drawing included a great deal
of detail. Later they researched online artists and shells and looked at a number of artworks featuring shells. (adapted from case study of Indigo Preschool (pseudonym) in DEST report Motivation and Engagement of Boys)

When discussing this example with colleagues, you might like to share experiences of supporting a child’s persistence at a task in ways that contributed to their confidence in their own capabilities.

2. Many of the families in the local area work in trades such as plumbing and building, and in hospitality and nursing. Educators have added pieces of plastic pipe, wood, measuring tapes, pulleys, conveyor belts, wheelbarrows and metal spades to the sandpit. What other experiences and resources could they include that would support children to make connections to their family experiences and knowledge?

4b: Children develop a range of skills and processes such as problem solving, inquiry, experimentation, hypothesising, researching and investigating

Children engage in investigative processes as they take part in everyday life. They explore their environment, ask questions and solve problems. The processes of problem solving, inquiry, experimentation, hypothesis development, research and investigation are essential for learning in mathematics and science as well as the creative arts. These learning processes begin from birth.

Babies explore their physical and social environments and manipulate objects. They are interested in how things work and in solving problems. They are curious about smells, taste, sounds, and how things feel. Toddlers are interested in the world around them and frequently ask questions such as ‘why’ and ‘how’. They experiment and solve problems with everyday objects.

Older children increasingly use language as they experiment with cause and effect, ask questions, make predictions, solve problems, hypothesise, reason and reflect on their learning. They observe similarities and differences between objects, people and events and develop skills in classification, counting, conservation of number, length, area, volume, mass, time and sequence.

When children are actively involved in the processes of problem solving they become more confident and involved learners. Problem solving helps children find possibilities and answers to their own questions. These might be questions about how something works or dilemmas they face in their interactions with others. Problem solving involves identifying and assessing a problem, thinking of ideas, gathering data and information to find a solution or answer, trying out and evaluating different strategies and analysing and reflecting on solutions.

Joint problem solving encourages children to view situations from a range of different perspectives, to share ideas and to challenge each other’s thinking. Small group investigations focused on problem solving that are supported by educators encourage deep learning and higher level thinking as well as social processes of collaboration and cooperation.

Educators belonging, being and becoming Resources CD

Material drafted by Charles Sturt University (CSU) Early Years Learning Framework Consortium, 2009
The active role of the educator in supporting children’s inquiry processes

When children engage in meaningful play-based investigations their disposition to solve problems and seek solutions deepens. Play provides a supportive environment where children can ask their own questions and generate their own solutions to problems. Educators have a key role in facilitating investigative environments and scaffolding inquiry processes. Well-planned resources and productive interactions can build on children’s interests and extend their investigation of big ideas.

To support children’s skills and processes in problem solving, inquiry, experimentation, hypothesising, researching and investigating educators can:

For babies and toddlers in particular:

• provide objects that encourage children to explore, for example objects with different textures, musical instruments and things that can be sorted, pulled apart and stacked
• respond to children’s questions by naming objects and providing information about how things work
• encourage children to solve everyday problems such as those involved with eating and dressing

For all children:

• create a climate where children feel confident to explore, seek new challenges, ask questions and take risks in their learning
• provide open-ended resources and collections of interesting materials to provoke children’s curiosity and encourage inquiry
• be co-learners with children by posing questions and encouraging them to ask their own questions
• investigate children’s interests both at home and in the early childhood setting, document their questions, predictions and hypotheses and support them to engage in in-depth investigations
• assist children to identify problems related to the physical and social environments and brainstorm possible solutions. Support children to identify the problem, think of possible solutions, predict the possible outcomes of these solutions, make a decision about which one to try, try it out and evaluate and reflect on the outcome.
• pose real world problems, for example, How can we find out how a clock works, and use everyday items such as torches and magnets that with the educator’s guidance can support children’s understandings of scientific concepts
• provide physical and verbal support as children find ways to solve their own problems. Allow time for children to try out their own ideas but intervene when children are showing signs of frustration. Ask children if they would like some ideas or if they need more time to think, suggest that they rethink their goals, break the task down into smaller steps, suggest that they seek help from other children or offer to do the first step to get them started.

• let children know that it is okay to ‘make mistakes’ and that trying out different ideas is an important part of learning. Accept all ideas, even when you know they will not work and support children to come to eventual solutions.

• support all children to be actively involved in problem solving. This means being aware of who contributes to group discussions, intervening when necessary to ensure that all children’s perspectives are heard and teaching children to respect and listen to each other.

• encourage children to make predictions by asking questions, challenging their thinking and inviting them to consider a range of possibilities. Questions such as ‘What do you think might happen if…..’ promote creativity, imagination and divergent thinking.

• scaffold children’s reasoning skills by asking them to elaborate on their thinking and give reasons for their predictions. These types of interactions help children to develop logical thinking and to think deeply.

• provide a range of materials, such as crayons, paints, clay, digital cameras, factual books, posters and computers with appropriate software. These resources, used with educator guidance, enable children to design, construct, plan solutions to problems, research, represent their thinking and share their ideas and solutions with others.

• plan quiet places where children can sit and reflect, plan and generate possible solutions to problems

• model problem-solving strategies by talking about the processes that you engage in when solving problems. Share strategies that didn’t work with children and talk about why they didn’t work and what else you tried.

• encourage children to think mathematically and scientifically by providing them with resources such as rulers and scales and encouraging them to measure, count, and graph. Join in children’s investigations and model mathematical language such as more than and the same as and scientific language such as energy, air and heat.

Discussion starters

1. How do you provide a challenging environment for babies while also ensuring their health and safety?
2. Some three year olds are interested in spiders and spider webs. Some of their questions are: Where do spiders live? How do spiders make webs? What do spiders eat? What do spiders drink? What happens if you get bitten by a spider?

What resources could you provide that would promote inquiry, experimentation, problem-solving and the investigation of big ideas? What family and community resources could you access? How would you support children to represent their learning in ways that are authentic and meaningful? How could children share this learning with others?

4c: Children transfer and adapt what they have learned from one context to another

As children’s experiences and understandings increase they are often able to draw on previous knowledge and apply it to new contexts. For example, they apply solutions that they used to solve one problem to work through a new problem. The ability to recall events assists children to transfer knowledge from their short-term to their long-term memory and to draw on this knowledge in future experiences.

Children often need time to process what they have learned and make connections between what they know and new contexts. Play provides many opportunities for children to try out and repeat knowledge, practise skills, transfer these to new situations and build on them. Problem-based, hands-on experiences that related to daily living help children to transform their everyday knowledge into academic knowledge.

Children develop metacognition (understandings about processes of learning) as they begin to understand how they use different strategies in their learning. They begin to use words such as know and remember to explain their learning to others. This is most likely to happen when educators talk about these strategies with children and scaffold children in their use. Educators can also facilitate metacognition by discussing ways of knowing and seeing, providing opportunities for children to use metacognitive strategies and showing children that metacognition is valued.

The active role of the educator in supporting children’s capacity to transfer and adapt learning from one context to another

To support children to transfer learning from one context to another educators can:

For babies and toddlers in particular:

- talk about what is happening during daily routines and remind them about general patterns of events
- remind them of past experiences and point out similarities between their own experiences and those of characters in books and films
- play games such as peek-a-boo to support babies’ capacity to recall and predict.

For all children:

Educators belonging, being and becoming: Resources CD

Material drafted by Charles Sturt University (CSU) Early Years Learning Framework Consortium, 2009
• provide resources that connect to children’s family and community experiences and encourage them to transfer learning from home to the setting
• make available a range of resources such as paints, musical instruments and computer software that assist children to reflect on and record their responses to events
• include materials and experiences that encourage children to generalise understandings about attributes such as size and shape from one context to another. For example, block construction, painting, puzzles and clay, combined with intentional teaching, can scaffold children’s capacity to transfer their understandings of size and shape to new contexts.
• play memory games and tell stories with repetition, lists and patterns
• talk with children about the characteristics of objects and encourage them to collect, sort, match and classify using different criteria. Provide a range of different resources so that children can generalise their learning.
• reminisce about your own past experiences and encourage children to talk about their experience with their families
• talk with children about shared past experiences, using language like ‘Do you remember when….?’.
• draw children’s attention to similarities and connections between past and current experiences. When children engage in a task similar to something they have done before, remind them of previous experiences and the strategies they used to reach their goal.
• use photographs and documentation of children’s learning to encourage them to talk about and reflect on their learning.

**Discussion starters**

1. Reflect on and discuss as a team the strategies you use to support children to make connections and transfer learning. Do you find that you tend to use the same experiences, comments and questions? Share strategies and discuss new ideas that you could try.

**4d: Children resource their own learning through connecting with people, place, technologies and natural and processed materials**

Children actively explore their environment and interact with people, objects, technologies, and representations.

Babies resource their own learning by using their senses and all their emerging skills. Older children take initiative and responsibility for their own learning. They make decisions, set goals, reflect and self-evaluate.
Children access a variety of resources including family and community members, books and computer resources. Information and communication technologies enable children to access information and to communicate globally as well as locally.

**The role of the educator in supporting children to resource their own learning**

To support children to resource their own learning educators can:

*For babies and toddlers in particular:*
  - plan learning environments that encourage children to use their senses to explore
  - allow time for children to investigate at their own pace
  - plan experiences that enable children to follow their own interests.

*For all children:*
  - provide a variety of materials and tools, including information and communication technologies, and large blocks of time that enable children to direct their own learning, follow their own interests and find new interests and questions
  - scaffold children to plan, design and resource their own learning by talking with them about the steps in planning and providing them with easy access to a range of resources
  - involve children in collaborative planning of projects and experiences and incorporate their suggestions into the program
  - provide children with resources such as old computers and bicycles that they can pull apart and investigate their own questions about how things work.
  - ask questions such as ‘Where could you find that out?’ and ‘Who could provide us with information about that question?’ to encourage children to think about different ways to access information
  - invite family and community members to participate in investigations and projects and take children out into the community to visit relevant sites. Local libraries, elders, storytellers, scientists, artists, performers and businesses can all extend children’s interests and connect the early childhood setting to the broader community.
  - involve children in organising excursions and visits from community members to the early childhood setting. This could involve discussing and recording the questions they would like to ask and planning the best ways to find out about the things they are interested in.
Discussion starters
1. Discuss with colleagues how you currently include children’s voices in curriculum planning. Are all children’s ideas included? How do you respond when you are not comfortable with children’s ideas? How can babies and toddlers have input into the program?

Documenting, assessing and planning to extend learning
Educators, families and children can use a range of documentation methods to identify and communicate children’s:

- explorations
- questions
- creative use of resources
- divergent thinking
- problem-solving strategies
- research strategies
- representations of understandings – for example, drawings, writing, constructions
- thinking at the beginning and end of an investigation or project – for example, word lists, webs
- sorting and classifying of different objects
- designs and plans – on paper or computer
- constructions – for example, with clay, boxes, blocks, Lego
- social interactions – for example, collaborative problem solving, strategies used to solve social problems
- reflections on their own learning.

In order to use this information to inform curriculum decisions, educators need to analyse what this documentation tells them about the child’s:

- interests
- confidence and enthusiasm for learning
- persistence at a task
- creativity and imagination
- use of books and technologies as a research tool to aid investigations
• capacity to interact with peers, negotiate, develop shared goals and collaborate with peers
• use of predicting, hypothesising, information gathering, evaluation and reasoning when solving problems
• use of language to question, hypothesise, predict and reason
• memory recall
• metacognition
• reflexivity.

Some examples of documentation, analysis and planning
The following example illustrates the ways in which staff built on the curiosity of a group of children.

Context
Kathy, Marisol and Peggy (aged 2) were at the collage table. There were different types of paper available, including crepe paper and cellophane.

Anecdote
Kathy and Peggy picked up the red cellophane and felt it. Then Kathy put a piece of red cellophane over her eyes and walked around the room looking at things through the cellophane. Peggy did the same thing. First they tried red then they tried yellow and green.

Analysis
Peggy and Kathy showed a lot of interest in the different collage materials. They were particularly curious about exploring the properties of the cellophane. They were interested to see how their visual perception of the world changed through the different coloured lenses.

Links to future planning
• Continue to provide a variety of collage materials of different colours and textures.
• Provide children with cardboard tubes and elastic bands so they can make periscopes and binoculars with cellophane. Talk with children about the different colours they can see.
• Explore making different colours with paints.
• Use PowerPoint slides or internet sites and a digital projector to display images and artworks and talk with children about what they can see.
• Make a dark place with boxes or fabric and provide children with torches. Encourage them to explore and talk about light and dark. Add cellophane for children to place over the torches to explore different colours.
• Add materials such as aluminium foil and mirrors for use with torches to explore reflections. Encourage children to ask questions and make predictions. Introduce older children to terms such as reflection, absorption, scattering and refraction.
• Make shadow puppets and use them with torches and an overhead projector.
• Explore colours in nature and the environment
• Make a collection of colours.

(Adapted from Mary Bailey House, Santa Sabina College Sydney)

Using reflection to plan for change

The following questions may assist you to reflect critically on the ways in which you acknowledge and extend children as involved learners:

• How do you connect children’s experiences in your setting to their home and community experiences? How do you include resources that children are familiar with and that enable them to display their expertise and to adapt their learning to new contexts?
• Do all children have easy access to resources? How do you support children with additional needs to access resources?
• How do you respond to children’s interests when they are passionate about things that we are not comfortable with or knowledgeable about, such as Barbie or Action Man? How can all children’s interests be incorporated in ways that acknowledge children’s interests and extend learning?
• Do all children have opportunities to solve problems and share their ideas? Are there some children who dominate in these types of experiences? Are there any gender imbalances?
• How do you support children to solve problems that are of interest to them and that relate to their questions and dilemmas?

References and resources


Queensland Studies Authority Early Years Support Materials.

Queensland Early Years Curriculum Guidelines

(For further references and resources, see Document 17 in ‘Linked resources - CSU 2009’ folder.)