

# Learning story exemplar

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This set of learning stories records three children's activity and learning, with a particular focus on the working theories they are exploring in their play.

## A theory is born

26th February

Ashton, Liam and Tyler started to tell me the story of their play in the sandpit. It was a story about a volcano, that was now knocked down, and about dinosaurs. "It's like you're quarrying the volcano" I said. "They still do that even today, you know". "But we don't have dinosaurs today, they're all dead." said Tyler and I agreed. But Ashton interjected "Cept, 'cept there is one dinosaur that is still alive and that is the tuatara".

But that led me to another question that I wanted to understand "But if all the dinosaurs died, how come the tuatara didn't die?" Tyler thought. He offered an idea: that the tuatara were in a cave when the volcano erupted (I think he used the word "exploded"). Oh, that's interesting. But Ashton disagreed. "No, no, no, they were on an island, that's why." Tyler looked at Ashton. "Maybe there was a cave on an island" he suggested, and in this way, the boys had negotiated a shared theory.

### The theory:

Dinosaurs died when the volcano erupted.

Tuatara were in a cave on an island so they didn't die from the eruption.

I told the boys that this was a very interesting theory and I wanted them to help me draw it. Ashton easily drew the island, and I drew the volcano, then Ashton tried to draw the tuatara but Tyler was not convinced by this drawing "It doesn't look like it".

But we know that this is only a first draft, and we can keep practising. Ashton always practises drawing a lot so he is sure to figure this out soon. Liam quietly tackled the task of drawing, and had clearly been listening to Ashton and Tyler's ideas, representing the shared theory in his drawing. We will put our pictures up on the whiteboard to share with our community, so that they can come to understand this knowledge too.

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Some analysis of the learning occurs too, as the teacher articulates the working theories that she hypothesises underpin the children's words. These working theories were recorded in this learning story because the teacher felt there was some mileage in exploring this theorising (a key learning outcome of Te Whāriki) further.

There is also some positive evaluation which enhances children's sense of competence and efficacy as learners.

Another plan is to place the drawings on the whiteboard to communicate them with families and other children. Presumably this is to invite comments and ideas from the community of learners in this centre.

The teacher explains how she and the children began to share the information they know about dinosaurs, and how she asked some challenging questions with the intention of eliciting more of the children's working theories. The description includes children's words.

The story also describes the teacher's intentional response to the learning in the moment (remember that noticing, recognising and responding happens all the time in teaching, and is not confined to written assessments).

One child's self-assessment that occurred in the moment is described. This might have been extended if the teacher had asked the other two children their opinion of their own drawings. The teacher responds to this self-assessment with positive expectations that the children will be able to practise and achieve this in time. There is an implicit plan here for the children to keep drawing.

## Reflection:

The teacher's thinking is presented in a reflective style – it can be clearer to present this reflection under sub-headings related to analysis and planning (such as “what learning might be happening?” or “how might we respond?”)

The teacher has talked to at least one family about this learning, as she cites some information given by one child's father.

Again, individual analysis is written for each child.. This text only appears in Liam's version of the story

The story also suggests some initial ideas for planning further. Alongside the plans for the children to keep drawing, the teacher also aims to encourage drawing through allowing time for drawing to develop, and to value other expressive activities such as sand and role play.

Tyler and Ashton are developing working theories (Exploration strand) for making sense of their world, and modifying them in a cooperative mode of knowledge-building. Working theories are one of the key learning outcomes of our early childhood curriculum Te Whāriki, and children's playing, inventing, imagining and experimenting (Exploration strand) are an important strategy for the exploration of ideas. And actually, no one can quite be sure how the dinosaurs died, so this is a great opportunity for children to be able to explore theories without being corrected!

Jonathon (Dad) tells me that Ashton adores non-fiction books; he seems to have absorbed a lot of information which can be brought to his meaning-making here. Liam's approach to this knowledge is different to the other two boys – much less verbal, more thoughtful and it seems to me that he is listening and evaluating the others' ideas. This demonstrates how we learn so much from being in a group – Liam is learning with and alongside others (Contribution strand), and through his drawing, communicates his understanding of what he has heard. We value drawing as a mode of expression (Communication strand) but also as a tool for thinking – in creating a drawing, I am asking the boys to organise their concepts (Where is the volcano? Where are the dinosaurs? Where is the tuatara? How do they interrelate?).

The range of dispositions to draw are quite significant, and must be considered in the way in which we further this project. When drawing is difficult, it is important that teachers give time. Ashton is likely to lead the way in discovering the strategy for drawing tuatara, as he has had some practice learning from Ailsa last year. When he is ready, he will be able to share this skill with Tyler (Contribution goal). The children are also able to continue exploring and expressing ideas and developing concepts through their sandpit play, as well as role play (Ashton likes to be a tuatara) (Communication strand).

Sharing our work with our wider community highlights what the children have achieved, affirms them as theory-makers, and helps them to recognise and appreciate their own ability to learn (Contribution strand). I hope it leads to more theories...

Individual analysis is written for each child, so the story is personal enough to each child to be meaningful to them and their family.

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The second learning story, “Soil volcano”, is a shorter story than the first story (“A theory is born”, introduced last week), because we don’t always need to, or have time to, write detailed analyses. Shorter stories can be used to follow up on an initial learning story, perhaps to show how something planned from an earlier story panned out, or to show how an interest is developing or changing.

## Soil volcano

14th March



It was one of those days when the children decided they needed to transport soil across the playground. Ashton saw the pile gathering and he knew it was a volcano. When he couldn’t convince anyone else I suggested he collect his own soil and make a volcano in a different place. Ashton made a cone shaped volcano, and he stood some stalks upright in the volcano to make trees. A little later, when I returned, it seemed the tree had fallen down, and a crater had formed in the top of the volcano!

In “A theory is born”, it was suggested that it would be important for children to continue to express ideas and develop concepts through other expressive mediums, and here Ashton is using soil.

I wonder whether this change was a modification (as if you realised a mistake) or whether you know that the crater is only formed with an eruption. Perhaps you are using your ever-deepening working theories about volcanoes to inform your construction.

To protect his work (or for the safety of the children), Ashton covered the volcano with a basket, and at my suggestion, wrote a sign to tell everyone.

This story also builds on the first in showing how the child’s drawing skills have been extended with the child using marks as writing, another example of communicating ideas with pen and paper, supported by the intentional suggestion of his teacher.

This story extends on the previous story in which you were building sand volcanoes to develop your theories about volcanoes, and also expands your interest in drawing to communicate ideas (today you were writing). These are important goals and learning outcomes within the exploration and communication strands. I am amazed Ashton at your ability to create and recreate your learning interest. You seem to have an awareness of your special strengths and confidence that your ideas will be valued in our centre community (Contribution strand). With each model and role play, you are practising and re-practising your knowledge and discovering different ways to be creative and express ideas. The more you learn about volcanoes, the more realistic your creations can be. So...how will you learn more about volcanoes?



It might have been clearer to formally label analysis and planning by using sub-headings.

Some more specific suggestions might have been offered in the planning section, such as looking at and comparing photos of crater holes, or talking to a geology expert, or visiting a volcano, and so on. It’s important to remember that young children are limited in ideas for activities they have already experienced, and it might take the brainstorming of an entire community of parents and teachers to develop and access new sources of information.

**This brief addition to the child’s portfolio shows how skills are deepening and being extended across a range of contexts. It demonstrates continuity of learning over time.**

The third learning story in this series, “Drawing to understand”, takes a slightly different style, and presents a short section of a transcript of children’s dialogue as they use drawing to make sense of and improve their working theories.

## Drawing to understand

25th March

We ask you to draw volcanoes so you can share your thinking with us, and each other.

Tyler: “When lava comes out, it goes any place up to the sky and down here. Break down the whole crèche!”

Ashton: “Well, when fire comes, we will get different rocks”

What happens when the volcano erupts?

Ashton: “It explodes.”

Liam: “Push the fire up and we will get smoke.”

Ashton: “Inside the volcano there is fire.”

Tyler: “When lava comes out it will be like ‘one two three’ like a rocket”

Ashton: “Yeah, it pops and then stops”

Tyler: “It would be funny if there was lava on the roof”

Liam: “When the lava comes out, all of us die and the animals will be dying”

Why do you think the animals will die?

Ashton: “Lava is very hot.”

Liam: “It is very strong.”

### How is learning continuing here?

The boys continue to explain and elaborate their working theories about volcanoes (Exploration strand). Many opportunities to draw ideas have resulted in greater confidence in drawing (Contribution & Communication strands), spurred by Ashton’s passion for drawing as an outlet for his imagination, which has encouraged Liam and Tyler too. The boys are used to coming together to share knowledge, and they both use language to communicate ideas and solve problems (Communication strand), developing shared and collaborative meanings.

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This story reports on an intentional experience that teachers had planned in order to extend some of the learning in the earlier stories. As such, two teachers worked together, with one teacher focussed on recording or transcribing dialogue.



The analysis and commentary here, again demarcated by italic text but also (helpfully) a sub-title, begins with a question, and focuses the analysis.

...and the thinking is becoming more collaborative.

This series of stories shows both continuity and development in the extension of children’s skills and interest in drawing, with collaboration between the children intentionally being used as a teaching tool. The drawing is becoming more complex...

### What is it that attracts these boys to the study of volcanoes?

We wonder whether it is the danger, which has them excited and maybe fearful (notice Tyler's humour which is a great strategy for reassurance: the boys giggle away at Tyler's ideas). Or perhaps it is the power and size, the sheer magnitude of the volcano's power which draws them to explore this topic over and over again, in admiration for something that is so 'very strong'. When the children build sand volcanoes, are they trying to command the power of the volcano? Power is such an interesting topic for children to explore – as relatively power-less citizens, they can nevertheless experience power through role playing and play-acting ideas such as volcano eruptions, and through dinosaur play (Exploration strand). The children's focus on forces ("push the fire up"; "one two three, like a rocket"; "pops"; "lava is very strong") and the consequences of the eruption ("break down the whole crèche"; "all of us die and the animals will be dying") in their drawing narratives suggest that they are exploring themes of power and force, as well as themes of death and destruction.

The teachers here are trying to understand the deeper interest that underlies the children's fascination with volcanoes. They are trying to determine if the children are interested in power and force, or simply "danger". These are the teachers' two hypotheses, based on their shared play with and knowledge of the children. These aren't the only possibilities of course, other concepts relevant to volcanoes include transformation and change, or fire and heat. Forming these hypotheses help the teachers to plan. Children soon let us know whether we have hit the button or not!

The learning story finishes with an idea for extension contributed by another teacher. There is a sense of a multitude of perspectives in this story, with the inclusion of the children's voices and another teacher. Another source of assessment that might have been included alongside this story would be an examination of each child's drawing, with comments and explanations by the children transcribed onto the drawing, and might offer further insight into their interests and working theories on this topic.

### How can we explore this idea further?

One of the biggest forces in an eruption is the force that blows open the crater. Eruptions are caused by enormous pressure. We have experimented with vinegar and baking soda, which creates a wonderful 'lava flow' but we know that we haven't really conveyed the force of the eruption for the children. Janus [another teacher] tells us Coca cola and Mentoes are more explosive.....we will find out! Would the boys like to explore explosions further? We could try placing toy dinosaurs near the exploding mixture, or we could try filming the explosion in slow motion perhaps. It will be really interesting to see if these kinds of experiences will have an impact on the children's working theories about what happened to the dinosaurs.

