

# Tim and the water: Growing an 'island of interest'

Over the last few editions of the Playcentre Journal we have been sharing some of the case studies from the Teaching and Learning Research (TLRI) funded project called *Moments of wonder, everyday events: how are young children theorising and making sense of their world?* In the last edition we discussed how we adapted Claxton's (1990) island analogy to describe the development and editing of mini-theories, coming to see children's interests as 'islands of interest', which provide contexts for working theory development. These islands of interest might or might not develop into the 'islands of expertise' described by Crowley and Jacobs (2002).

As a practitioner-researcher and a parent at St Albans Playcentre, Eleanor White became fascinated by this 'island' metaphor and the implications it has for adults in terms of our interactions with children. She began to wrestle with questions such as:

- How can we recognise children's initial 'islands of interest' and the working theories associated with these 'islands'?
- Having taken this step of recognition, what intentional strategies can adults use to support children and give them opportunities to grow the 'island of interest' to become more complex, more connected and more compelling?
- What implications does this have for the way we interact with our children at Playcentre and at home?

In this article we share part of a case study about Eleanor's son, Tim, and how his working theories of how water moves developed over time and context as his 'island of interest' grew and developed.

## Recognising an emerging 'island of interest' in a very young child

Eleanor first began to notice and document Tim's interest in how water moved when he was one year and eight months and mainly non-verbal. In June 2009, she recorded the following story about Tim and the tap.

*Tim came to see me in the sandpit, waving a watering can and saying, "Help! Help!" He went to the outside tap and showed me it was too hard for him to turn on. I thought if he used it, he was likely to flood the whole veranda so I said, "Let's clip the*



Tim looking under the water trough.

*hose on and then you can fill your watering can in the sandpit." The hose was right there and I started putting it on the tap. Tim was not impressed. He said, "NO NO" and tried to pull it off and put his watering can under. I said, "I think it's a good idea to use the hose so we don't make a flood. Look, you hold the end and we'll make the water come out." He looked very dubious but I took him to the sandpit and gave him the hose and he stood there looking at it. I fixed it up and turned the tap on. I said, "Right the water should be coming now." He looked like I was away with the fairies but then the water started coming out. He seemed surprised but filled his watering can and kept on playing. (12.6.09)*

Tim wasn't at all pleased with Eleanor's idea of attaching the hose to the tap and at the time Eleanor felt she had 'rushed' Tim into doing it her way, out of fear of a flood, rather than taking the time to talk over the problem with him like she usually did. It was Tim's resistance to her hose idea, together with his look of surprise when water emerged from the hose, that triggered Eleanor to wonder about Tim's working theories about water.

Only three days later Eleanor noticed another water related event. This time it was Tim's deep level of fascination in the pipe

and guttering system some of the older boys had created, together with him watching the water flowing through this system, that Eleanor noticed.

*Today the older boys were playing in the sandpit and had made a complicated water flow system with pipes and guttering. Tim was fascinated with it. He would go over and look at the water flowing into one end of the pipe and then go round to the other end where it was coming out and lean right down to peer in and see what was happening. Then back to the start and have a good look at that and back round again. Also, he had a little beaker with holes in the bottom and he went and filled it at the basin. He was carrying it outside and then noticed that all the water was coming out of the bottom. He was most astonished. [15.6.09]*

These events reminded Eleanor of how Tim showed the same fascination with turning taps on in the bathroom sink at home. Eleanor began to theorise about what it was about the water that interested Tim.

*Tim loves to play with water at home. He has just realised that if he takes a chair to the bathroom he can stand on it and turn the tap on. Then he stands there watching it with fascination. I wonder if all this is*

to do with him wondering about where water comes from and how it gets to other places. [15.6.09]

Eleanor and other adults began to notice Tim's interest in water and recognised other connections, like in the following story about Tim puzzling over Jakob's vertical slime-and-water pipe. Jakob had a pipe 'anchored' vertically in the sandpit and was filling it up with water and slime to make an explosion. There was another separate pipe next to it, horizontal on the ground, making an L shape.

*Tim came over and watched Jakob pouring the water into the vertical pipe and then went round to the end of the horizontal pipe and peered right in to see if the water was going to come out. When he didn't see any he looked at me [Eleanor] and Uta [Jakob's mum] with a very puzzled expression. It was so obvious that he was thinking the pipes were joined and knew what he was expecting and was surprised*

when his theory was disrupted.

*Uta said, "Good thinking, Tim. But look, they're not joined." She picked up the horizontal pipe and rested one end on a tree stump and Tim then spent ages pouring water from a bucket into the pipe and watching it run down. [26.7.09]*

Eleanor believed it was very clear what Tim's working theory might be, as implied by his actions. This was another cue that she may be on the right track about his interest in the different ways water moves or travels, and his developing working theories.

In August another parent (Wendy) recorded a story for Tim at the water trough that included Eleanor supporting Tim to explore the role of the plug in keeping the water in the trough. Wendy noted Tim's interest in looking under the trough to see what was happening with the water and recognised the connection for Tim to a similar event the previous week. Wendy planned to revisit this again with Tim in the near future.



*Tim looking into the water trough.*

Eleanor was interested to note that over the next few weeks, every time Tim went past the water trough, he checked underneath to see whether the water was flowing out of the plug hole. At tidy up time, she invited him several times to pull the plug out and watch what happened. He continued to find this very interesting. On one occasion, she found Tim and his same age friend Luca kneeling together under the water trough watching what was happening. How he had managed to communicate that Luca should come and watch was a puzzle to both parents as neither child used much spoken language.

In these examples, Eleanor recognised Tim's 'island of interest' in two main ways.

- *His surprise, astonishment or puzzlement*

This was shown by his facial expression, 'he looked like I was away with the fairies'; his stopping short in his tracks and just looking, as when he carrying the little beaker outside and noticed water was coming from holes in the bottom; and by what Eleanor describes as 'peering' or looking closely at something as if he can't quite believe it.

- *Repeated actions or re-visiting the same activity*

For example, Eleanor noted that Tim kept going into the bathroom, turning on the taps and watching the water go down the plug hole. Also, that he kept checking under the water trough to see what was happening. It was as if he was asking himself the question, 'does this always happen?'



*Tim in the water trough.*

### Theorising about working theories

An important strategy Eleanor tried was to put on her 'working theory glasses' when observing Tim. As Tim's parent she had an immense amount of knowledge about his interests and was able to realise this was something special to Tim. She used her background knowledge of Tim and the way he responded to different situations. She watched to see what was fascinating Tim about this interest and what he was developing theories about. This led her to theorise that his 'island of interest' was not just water but more particularly how water moves.

George Forman emphasises the importance of theorising about children's theories:

*It does not matter if your theory of the child's theory is wrong. It only matters that you have a theory conversation with the child, and a good start for such a conversation is for you to venture a guess (cited in Shafer, 2002, p. 194).*

Alise Shafer (2002) continues

*When we venture a guess about a child's question or comment, we are prompting further inquiry, reflection or the correction of our own misconception. Even when we guess incorrectly, chances are good that we may gain a clearer insight into the child's line of thinking as the exchange proceeds (p.194).*

Although the context of Shafer's and Forman's remarks is with three and four year-olds, we would argue that their ideas hold true for even the youngest of children. An important adult strategy seems to be to take a guess at the child's theory and talk to them about what they might be thinking, even though they might not be able to respond verbally. In Tim's case this happened through comments like, "Good thinking, Tim. But look, they're not joined." There were other opportunities where this could have been verbalised by the adults, such as commenting, "You look surprised the water's not coming out of the water trough today. Do you want me to pick you up so you can see inside the water trough?" and then seeing how he responded.

### Growing an 'island of interest'

Crowley and Jacobs (2002) commented:

*A typical island emerges over weeks, months or years and is woven throughout multiple family activities. Because of this, developing islands of expertise is a fundamentally social process. They*



Tim watching Jakob.

*are constructed through the on-going negotiation of children and parents' interests, children and parents' choices about family activities and children and parents' cognitive processes including memory, inferencing, problem solving and explanation (p.334).*

Eleanor's intimate knowledge of Tim at home and Playcentre enabled her to respond to seemingly small incidents because she recognised they were important to him. For example, in August Eleanor explained to Wendy why she thought Tim was looking under the water trough, drawing on their shared experience from the previous week. She then took the small, but important, step of inviting Tim to pull out the plug on the water trough on several occasions.

In December she recounted a story:

*We were in a rush getting ready to go out to the Playcentre break-up last Friday and I left Tim in the bathroom brushing his teeth. Should have known with child number four that was a mistake. I came back into the bedroom and this little voice said, "Mum, the water's not going down the pipes." I rushed into the bathroom and, of course, the water was indeed NOT going down the pipes. He had put the plug in – the whole bathroom was under about an inch of water. Shows he's still thinking a lot about pipes though!*

Whereas, she might have been cross with Tim for flooding the bathroom, Eleanor instead recognised its significance to Tim, remembering the effort he had put into



Tim working with the water.

understanding how the plug in the water trough worked and seeing how he was thinking about the parallels here.

Crowley and Jacob's (2002) illustrate an example of a child developing his island of expertise around trains, centred on the shared conversations and experiences he has with his mother and other family members. This links with a significant early piece of research on children's conversations, where Tizard and Hughes (1984) compared conversations four year old girls had at home with their mothers, with those they had with adults at nursery school. They found that at nursery school,

*The richness, depth and variety which characterised the home conversations were sadly missing. So too was the sense*

*of intellectual struggle, and of the real attempts to communicate being made on both sides. The questioning, puzzling child we were so taken with at home was gone ... (p.9)*

Eleanor found she was able to scaffold many of Tim's experiences at Playcentre because of her parental knowledge and the fact she was able to hazard a good guess about what he might be thinking. For her, one of the strengths of Playcentre was that she could be present with her child and could help him to interpret experiences by talking about experiences at home. Similarly, at home they could revisit experiences from Playcentre, for example, when looking through his Learning Story book, or talking with dad about their day.

## Conclusion

Documenting Tim's growing 'island of interest' in water travel drew attention to the non-verbal theorising young children may be engaged in and the ways in which adults can notice, recognise and respond (Ministry of Education, 2005) to this in early childhood and home settings. Our findings suggest it is important to take the time to observe what is happening, and to 'test out' the adult's understanding by venturing guesses and checking the child's responses to these to see if the adult appears to be on track. Elsewhere (Peters & Davis, 2011) we have discussed the dilemmas adults face in supporting and fostering working theory development and the danger of 'highjacking' the child's thinking and following the adult's agenda. In the next article in this series Eleanor will share her reflections on the ways in which she, and others at St Albans, became more alert to children's interests, sensitive to the ways in which these might grow or wane, and became more open to exploring different strategies to support the development of working theories within a culture of enquiry.

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