

NZASE Science Communicator **Mike Stone** spoke with three Teach First participants (TFPs) and two mentors to find out what TFPs needed from a Science HoD who becomes a mentor.

#### **About Teach First**

Ako Mātātupu: Teach First NZ (AMTFNZ) has been providing field-based initial teacher education (ITE) since 2013, as part of a global network. While it looks different in each country, the overall aim is to reduce inequity in education by encouraging the best teachers into schools serving low socioeconomic communities.

Ako Mātātupu means the "fresh shoots of learning" from the whakatauki "Ko te piko o te māhuri, tērā te tupu o te rākau", the way the sapling is shaped determines how the tree grows.

While some were sceptical when fieldbased training was first introduced, the teachers who graduate from this course are proving to be skilled practitioners and many are good leaders.

AMTFNZ is a charitable trust so TFPs win a two-year scholarship, pay no fees and earn as they learn to teach, while completing a Masters in Teaching and Educational Leadership. The course attracts a variety of applicants.

All are graduates (in English, STEM subjects. te reo Māori or Pacific languages) and many have been in work for a while. The scholarship makes it easier for applicants to change careers, even with children and a mortgage.

The Teach First scholarships have a rigorous selection process – a written application, a phone interview, and a day

of activities in small groups, designed to bring out applicants' strengths. Since 2013, only nine percent of applicants have been accepted. Whatman and colleagues (2019) say that "field-based ITE programmes need high-quality applicants who can 'hit the ground running' and who are able to manage intensive workloads and the combination of tertiary study and classroom teaching".

cohort

of Ako

pants.

Mātātupu: Teach First

NZ partici-

AMTFNZ finds work for each TFP in a lowdecile state school, which employs them for two years in a contract with a limited authority to teach. While teaching and learning, TFPs study to complete their Masters.

The Ako Mātātupu course begins with a summer intensive before participants start teaching. In December they are based in a few schools, learning key principles and observing, teaching and practicing in small groups in year 9 and 10 classes. Staff from the training institutions (the University of Auckland for Kieran and Aiden (quoted below), Mindlab for Airana, and Teach First itself for this year's cohort) also visit the TFPs several times a term.

After Christmas all participants do coursework together, with a strong focus on curriculum. During the year, various wānanga are held in holidays and weekends.

### What does mentoring involve?

When TFPs start in a school they are assigned a mentor. In-school mentors are crucial to their learning process, as TF is effectively an apprenticeship. Ideally the mentor needs to be a subject expert with good pedagogy who is positive and enthusiastic about the job. Mentors also need to be well organised, relationship-based and have high expectations.





Kieran in black, centre. with students.

The school is given funding to release Gainsford, teachers to provide four hours of mentoring weekly in the first year and two hours in the second. AMTFNZ requires this mentoring time Aorere to include at least one observation and one College learning conversation each week.

All three TFPs said the four hours a week of mentoring was crucial. Airana Ngarewa, TFP at Spotswood College, said it worked well because his mentors co-constructed the conversations with him. He said he picks up things quickly, wants to develop his own style, and progresses most when allowed to take responsibility for his own learning.

Aiden Kiely, TFP at Aorere College, found a schedule of one meeting early in the week, two observations and another meeting later in the week worked well for him. He appreciated the meetings being suggestive not prescriptive. His new HoF keeps a record of every meeting to refer back to - "We talked about X last week - how's that going?" Aiden also talked about having to separate his teacher self from his personal self and ensure he was "recharging the batteries".

He appreciated being sheltered from extra responsibilities - his HoF telling the department, "we need someone, not Aiden, to ..." Although he was keen to get involved, he realised that the challenges of teaching required all his energy. Aiden also appreciated being protected from appraisal for two years, although this is not the case in every school.

TFP Airana Ngarewa found the quality of classroom observations most useful, as it built a trusting relationship. Kieran Gainsford, TFP at Aorere College, found it helpful being told not to worry about things so much, to keep an

eye on the bigger picture and not sweat the small stuff.

As well as watching their mentors teach, Rosie Cairns, SCT at Gisborne Boys' High School, thought science TFPs could benefit from observing woodwork and metalwork classes, as both are very practical and have safety considerations. Rosie also recommends that TFPs bring a question or a specific focus to mentoring meetings.

This mentoring needs the full four hours for the whole year, not just the first term. Mentoring meetings changed their focus as TFPs gained expertise. Aiden Kiely found he needed support later with parent-teacher interviews, internal assessments, reports, deadlines of term 3, signposting and other topics.

Sometimes the four hours of mentoring is split between two people. Kieran Gainsford had both a Chemistry teacher and a Geography teacher as mentors. One focussed on general pedagogy (classroom management, studentcentred strategies) while the other was more subject specific (managing practicals, developing Nature of Science, health and safety, setting relief for science classes). Rosie Cairns says it is important that the various mentors work together to avoid repetition and reinforce the same messages.

Auckland Girls Grammar School chose to give the bulk of mentoring time to the school's SCT, and allocated one period per week, shared by the two TFPs, to the HoF Science, Michal Denny. This meant the two TFPs got excellent support around pedagogy and classroom management, but in hindsight probably not enough time for subject specific mentoring.

Aiden and Kieran Gainsford both talked about other TFPs whose mentors were less skilled, or gave less time. While most of those TFPs are still in teaching, the apprenticeship was much harder for them.

Kieran added that "it is easy to forget how little we know about how schools work. We need help with the small things - how to take a roll, how to set up a plan-book, afterhours access, class routines, and what to do on duty."

The AMTFNZ mentor information booklet quoted feedback showing some TFPs



appreciated their mentor going into their classes at the start, engaging with students, checking all is going well and if so leaving. The need for this gradually tapered off as TFPs found their feet.

Kieran said "An explicit scheme and unit plans are really important. But even then, we need to learn how to develop a coherent program, what is the scope at different year levels (for example, how teaching meiosis at L1 looks different to L2 and L3), and what is the best sequence for teaching key concepts."

The AMTFNZ mentor information booklet suggests mentors help TFPs with planning an effective lesson. The mentor and TFP could plan a unit for one class together using a variety of resources and approaches, seeing the principles and process of planning in action. Then TFP could then use this as a model for their other classes.

After their two years with AMTFNZ, participants go into a two-year Provisionally Certificated Teacher (PCT) programme, with less than a full load of teaching and with ongoing support. Aiden Kiely and Kieran Gainsford have both been through this stage and really appreciated the non-contact time allowance, which enabled them time to further develop in their third and fourth years of teaching. They did not always find PCT meetings relevant, being geared more to induction, but they both still met with a mentor.

#### **Preparing to mentor TFPs**

AMTFNZ sends its mentors guidelines and suggests meeting up with mentees before they start at the school. Michal Denny thought that it would have been helpful to talk with other science teachers who had mentored TFPs and to read research on the process.

Researcher Feiman-Nemser (2001) suggests that mentors treat these apprentice teachers in similarly to students:

 Start with the novice's interests and concerns, and co-construct the meeting

Look beyond discipline/management issues to clarity of purpose, appropriateness of task, adequacy of directions, and depth of content understanding.

 Ask open-ended, probing questions to encourage new teachers to have good reasons for the things they do

• Give concrete and specific feedback that helps novices see their progress and what they need to work on

• Help the novice to see and use information about students' thinking and sense-making

Help novices make meaningful connections between theory and practice

• Model the process.

Mentoring TFPs is different from what associates need to do for pre-service teachers on placement. Those trainees are always supervised in the classroom, while TFPs are in the classroom, by themselves, teaching from day one. The whole process rests on high quality mentorship in schools, so schools need to ensure that mentors are clear about their responsibilities, and are well-supported to guide their apprentices effectively.

*Members* of the 2019 cohort at a Clarks Beach wananga



# Ngā Kupu

Ngā Kupu	Fror
<u>Kaiako</u> - Teacher	n <u>Te</u>
<u>Kaiārahi</u> - Mentor, guide	Akc
Kaihautū - Leader, producer	a Mc
<u>Marautanga</u> - Curriculum	TOL
<u>Wānanga</u> - Advanced residential	Dic
learning course	tion
Whakangungu kaiako - Teacher	ary
training	

## References

Sharon Feiman-Nemser. (2001). Helping novices learn to teach: Lessons from an exemplary support teacher. Journal of Teacher Education, 52(1), 17-30. Jenny Whatman, Eliza de Waal, & Jo MacDonald. (2019). Field-based initial teacher education. NZ Council for Educational Research, Wellington.

