

Vignette 3 - assessment

SUMMARY KEYWORDS

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SPEAKERS

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Kia ora, and welcome to vignette three, a rich balance and we're looking at available resources. Firstly, one way to look at resources is looking at the four different problem types. This comes from the work by Professor Judy Anderson. There are exercise and application problems in the surface level. And at the deeper level, there's the open ended and unfamiliar tasks. And as teachers we're familiar with all of these, and it's a good way to actually look at the sorts of experiences we're collecting when we analyse and use resources. A quick example is both of these, as you look at the addition of fractions, the one on the left is more traditionally round the exercise procedural fluency, yet the one on the right can elicit the same understandings from ākonga. But it also provides opportunities to explore, be creative, lift a bit more curiosity, and have that low floor high ceiling area that we really want to focus on. We also know that we're trying to give them abilities to explain, connect their mathematical thinking. So if we can do this, we're going to build up their skills in these particular areas, because we need to know that the role of our tasks that we choose is absolutely central. And it's through these tasks more than in any other way that these opportunities to learn are made available to the students. These types of questions are also used in many national and international assessments.

We can see here from the TIM's example, we have exercise problems, application problems, and unfamiliar problems. So we're trying to make sure that our ākonga have experiences in all these areas. And regardless of the level that they're at, they still have the right to access all these problem types in a rich, balanced diet. NZ Maths can provide us with these, kaiako can help us with the maths adventures that can be used for exercise and application problems. If we quickly venture into this, we can actually have the option of using student logins, which teachers can very quickly and conveniently set up. And then we have a choice of different strands and sub strands, and even areas like number facts and problem solving. They give us opportunities for both independent and group consolidation. And they also give us opportunities to practice the procedures and the concepts. By working our way through these. Some teachers are using these for the kids to be independent. Some teachers are using them for whole class discussions as they go through this together. They also give a range of different ideas, and they link to the community and they also link to other key and cultural competencies around the New Zealand curriculum. Which learning activities are a good way to get familiar with the unfamiliar problems and make this part of that rich, balanced diet. There are many to choose from, and they all follow a similar format. There's a clear link to the procedures and concepts again. There's a description of the maths. So we can clearly see these are the procedural knowledge and the concepts that these

kids will need before they embark on this, giving us opportunities to think of some diagnostic ways to see what the kids already bring to this particular unit. The activities are clearly laid out. And it has procedural and conceptual annotations to help the teacher make valuable judgments and decide where the kids need to go next.

Here's one such example of a procedural approach for one of the rich learning tasks. A new addition are the learning at home supports which are very new and these are being widely used by teachers across Aotearoa. And they cover a lot of areas of maths. One thing that is very noticeable about them in relation to what we're looking at is they create a very strong balance. If we take Year 8, learning activity sheet three, we can see there's application and exercise. There's also open ended and unfamiliar. So once again, these provide a snapshot of a really well-balanced focus on the different problem types for each specific learning area. They also come with a guide to support our judgments. So this can be used to help empower kids to have more agency in their own self-assessment, and also it invites the community, families and whanau to support their students at home. In conclusion, NZ Maths does provide a balanced approach, and it can start right here, right now. They balanced the four problem types. And through those four problem types, we get a good balance of those five essential proficiencies or practices that we looked at in vignette one