

Māori and Mathematics: “Nā te mea he pai mō tō roro!” (Because it’s good for your brain!)

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This study explores the perspectives of Māori students attending kura kaupapa Māori schools. Sixty-one year 5–8 students in four kura were interviewed individually to ascertain their perspectives about the nature and importance of some aspects of mathematics. The findings show that the students had firm views about the nature of mathematics, its importance, the need to learn their times tables, and setting goals.

Ko te pae tawhiti whāia kia tata, ko te pae tata whakamaua kia tīna.

Introduction

Rights to education for Māori are embodied in the United Nations Convention on the Rights of the Child. Article 28 (the right to education) and Article 29 (the right for education to be directed to the development of mental abilities to their fullest potential) (Munn, 2005) indicate that Māori students have a right to experience mathematics education that helps them to realise these principles. This process of mathematics education for Māori can be difficult. Mathematics is a discipline that is heavily value-laden and therefore inclined to promote the thought processes and values of the dominant culture (Bishop, 1988).

Mathematics needs to allow people to operate in their world and make sense of it. Active participation in learning can help students connect mathematics to their world. Learning mathematics can empower students to make decisions and to be aware of the consequences of their decisions (Cotton, 2004). Mathematically-literate citizenship demands that each person be able to critically evaluate the implications of the mathematical events that will affect their lives. This empowerment, which can be linked to notions of self-esteem and self-worth, is important for minority-group students and can contribute to their academic achievement (McKinley, Stewart, & Richards, 2004; Rubie, Townsend, & Moore, 2004).

Much has been written about the academic underachievement of Māori in the New Zealand education system (Forbes, 2002; Garden, 1996, 1997; Knight, 1994; Ohia, 1995; Young-Loveridge, 2004; Titus, 2001). Since the first kōhanga reo was established in 1981, many Māori have been actively pursuing an alternative form of schooling for their children, based around kaupapa Māori education in te reo Māori and tikanga Māori. Durie (2006) noted that the advantages of total immersion were so encouraging that Māori-medium education was subsequently implemented at primary, secondary, and tertiary levels. He suggested that education could be a major vehicle for “unleashing Māori potential and realising Māori aspirations” (Durie, 2006, p. 15). While there have been gains in mathematics learning for some Māori students in recent years, there is still much to be done in the pursuit of equitable outcomes in mathematics (Christensen, 2004; Trinick & Stevenson, 2007; Young-Loveridge, 2004).

Listening to student voices can alert educators to students’ unique perspectives on learning (Rudduck & Flutter, 2000; Hamilton, 2006). Students have a range of ideas about the nature of mathematics. These can include ideas about: knowing particular content, such as number and operations; learning; problem solving; having fun; and the application or usefulness of mathematics in everyday living (Young-Loveridge, Taylor, Sharma, & Hāwera, 2006). Grootenboer, Romley, Stewart, & Thorpe

found in their study that year 5 and 6 students placed a strong emphasis on number and arithmetic, learning times tables, and the school as the major contexts for mathematics experiences. Other research has shown that many students relate mathematics to their future, especially in terms of employment (Averill & Clark, 2006; Young-Loveridge et al., 2006).

Herewini's (2007) interviews with ten recent graduates from a year 8 kura kaupapa who had experienced Te Poutama Tau (the Māori-medium numeracy project) indicated that learning mental strategies in number was crucial for the students' mathematics development. Māori students in other immersion settings who were exposed to Te Poutama Tau also emphasised that mathematics focused on the development of number ideas. These students stated that there were different ways of reaching solutions, and therefore a range of mathematics strategies was acceptable. They said that their communication in mathematics centred on explaining such thinking, rather than on in-depth problem solving or investigative work (Hāwera, Taylor, Young-Loveridge, & Sharma, 2007).

In New Zealand in recent years, it has been suggested that the mathematical ideas to be learned should be embedded into a range of contextual problems (Ministry of Education, 1992, 2007). Some research indicates that if students can see the applicability of mathematics, this will increase their motivation to engage with it and view it as worthwhile. Such participation can help the students make stronger links with the mathematics they may be involved with away from the school environment. The relevance of any mathematical context to a particular group of students, their cultural background, and the subsequent practices of the students and their families are all factors that must be considered by the teachers if meaningful learning is to occur (Perso, 2003; Zevenbergen, 2000).

Students from minority groups need to know that they possess a long and rich mathematical heritage and that they can be as mathematically capable as others. They can also learn to appreciate mathematics within different cultures (Zaslavsky, 1998). Ethnomathematics is the active and creative study of the mathematics ideas of traditional peoples. It is used to express the relationship between mathematics and cultural attributes such as language, values, beliefs, food, habits, and dress (Ascher, 1991; Barton, 1993; D'Ambrosio, 2001). It is argued that mathematics education should include ways to "reaffirm, and in some instances restore, the cultural dignity of children" (D'Ambrosio, 2001, p. 308).

A Māori world view synthesises links between people, their activities, and the environment. Compartmentalised thinking is incompatible with such a view. The concept of mātauranga, "to know something, to learn and acquire skills, to be acquainted with, to have some understanding, or to be certain of" (Pere, 1994, p. 73) is not seen as something that is static or isolated. Education is considered to be a holistic enterprise, so mathematics should be integrated with everyday life. Shared meanings and understandings are integral to the learning process (Bishop, 2005; Hemara, 2000; Pere, 1994).

Students who consider themselves to be competent in mathematics can be more motivated towards learning (Gurtner & Osner, 2004). Positive dispositions such as inclination, curiosity, perseverance, and enjoyment are intrinsically related to learning. Such dispositions, the cultural background of the students, and the provision of rich, contextual, and worthwhile tasks are all important factors that should be considered when helping students develop mathematical competency (Maxwell, 2001).

Learning goals can be closely linked to the students' views of themselves as mathematicians (Gurtner & Osner, 2004; Torrance & Pryor, 1998). When teachers collaborate with students to set both short-term and long-term learning goals, this can result in increased student engagement and participation. Learners have more "ownership" of the goals. Appropriate pedagogical practices can ensure that maximum opportunities are made available for the achievement of these goals (Irvin, 2007; Weeden, Winter, & Broadfoot, 2002). The monitoring and assessment of these goals can provide useful feedback for students and teachers (Gregory, Cameron, & Davies, 2000).

Method

Participants

This study focuses on the responses of 61 year 5–8 Māori students from four schools. Two schools were kura kaupapa Māori catering for students from years 0–8, another kura catered for students from years 1–15, and the wharekura catered for students from years 0–13. Three of the kura had participated in Te Poutama Tau, the Māori-medium equivalent of the Numeracy Development Projects (NDP), for several years before this study. Twenty of the students were from decile 1 kura, 21 from a decile 2 kura, and 20 from a decile 5 kura. Thirty-eight students were female, and 23 were male.

Table 1
Composition of the Sample by Year Level

Year	5	6	7	8	Total
Number of students	8	9	23	21	61

Procedure

Schools were asked to nominate year 5–8 students from across a range of mathematics levels. The students were interviewed individually for about 30 minutes in te reo Māori or English (their choice) in a quiet place away from the classroom. They were told that the interviewer was interested in finding out their thoughts about their learning of pāngarau/mathematics.

The questions this paper focuses on were part of a larger collection that the students were asked to respond to. Other questions have been previously analysed and discussed elsewhere (Hāwera et al., 2007). The questions of interest in this paper are:

- Ki ōu whakaaro, he aha tēnei mea te pāngarau?
(What do you think mathematics is about?)
- Ki ōu whakaaro, he mea nui tēnei mea te pāngarau? He aha ai?
(Do you think mathematics is important? Why?)
- I a koe i te kāinga, i wāhi kē, he whakaaro ōu, he mahi pāngarau i roto i ōu mahi? Pēhea mēnā ka haere koe ki te taha o ōu mātua?
(When you're at home or at other places, do you think about mathematics or do any mathematics? What about if you're out with your parents?)
- Ki a koe, he take nui te ako i ngā whakarea, ngā whakarau? He aha ai?
(Do you think it's important to learn your times tables? Why?)
- Ka whakarite koe i ētehi whāinga i a koe e ako ana i te pāngarau? He aha ētehi?
(Do you set goals when learning mathematics? Can you tell me some?)

Audio tapes of the interviews were transcribed by a person fluent in te reo Māori. Transcripts were subjected to a content analysis to identify common themes coming through in the students' responses. The quotations offered below each table are a sample of students' responses.

Findings and Discussion

Question 1:

- Ki ōu whakaaro, he aha tēnei mea te pāngarau?
(What do you think mathematics is about?)

Number and operations	Learning and stimulating the mind	Links to a context	Everything	School work	Problem solving	Don’t know/ no reply
18	12	8	3	2	1	17

Number and operations

Ko te ōrite ki te kaute nama. (K410–f5)¹
(Same as counting number)

Ko ngā nama, ngā tāpiri, whakarea, me ērā atu. (K13–f8)
(Numbers, adding, multiplying, and those other things)

Learning and stimulating the mind

He mea hei ako. (K14–m8)
(Something to learn)

He mea hei whakapiki ake ōu whakaaro. (K26–f8)
(Something to elevate your thinking)

He mea kia whakakoi ake i a koe. (K25–f7)
(Something to make you sharper)

He mea ka whai kaha tō roro, ka brainy. (K34–f8)
(Something to make your brain stronger, so you’ll be brainy)

Links to a context

Like if you wanna be a astronaut person do you need to know maths, and if you wanna be a accountant and all those, don’t you need to know maths? (K64–f8)

Kia mōhio koe ina pīrangi koe kia hanga whare. (K29–f6)
([Something] you should know if you want to build a house)

Everything

Ngā porowhita, nama, ngā whakarau, whakawehe, ngā rautaki, ngā whakautu, pātai, tapawhā, me ērā momo mea. (K35–m7)
(Circles, number, multiplication, division, strategies, answers, questions, squares, and those other things)

Heaps of stuff. (K62–f7)

School work

He mahi, āe. (K42–m7)
(Work, yes)

He mahi ... he uaua ētahi, he māmā ērā atu. (K36–m7)
(Work ... some easy, some hard)

Problem solving

About solving problems. (K65–f7)

¹ K = kura, 410 = the 4th group and 10th in that group of the 61 children, f = female, 5 = year

Key points

In response to the first question, about one-third of the students indicated that they perceived what mathematics is about in a broad sense. These students associated mathematics with learning and acquiring a good education or saw it as a tool to be used within a context outside the classroom. However, the majority of the students either confined their explanation to number and operations within the school environment or did not express a view of what they thought mathematics was about. Although *Mathematics in the New Zealand Curriculum* (Ministry of Education, 1992) supports a broader spectrum of the teaching of mathematics ideas within a range of meaningful contexts, it would seem that many students are not yet recognising connections between mathematics and the world around them.

It is interesting to note that, although these students were attending kura kaupapa or wharekura where te reo Māori and tikanga Māori are the bases of the education system and supporting resources in te reo Māori are supplied, they did not express views that indicated appreciation of the rich mathematics embedded in that culture. For students to be able to make the most of mathematics beyond school, it is helpful to have a view of mathematics that extends beyond the classroom paradigm (Presmeg, 2002; Young-Loveridge et al., 2006).

Question 2:

- Ki ōu whakaaro, he mea nui tēnei mea te pāngarau? He aha ai?
(Do you think mathematics is important? Why?)

Yes	No	Sometimes	Don't know
55	2	3	1

Of the 55 students who said mathematics is important, the reasons given were:

To get a job	To support learning	Money/ shopping	Everywhere	To be successful at counting	Don't know
16	16	9	4	5	5

To get a job

Nā te mea mēnā kāre koe e mōhio, pea kāre koe ka taea ki te whiwhi he mahi. (K34–f8)
(Because if you don't know (maths), perhaps you won't be able to get a job.)

So you can get a job, 'cause you need some maths skills to get a high-paying job, and you need to do measurements and other things to become a builder or an architect. (K510–f7)

Āe, he mea tino nui te pāngarau ... hei āwhina koe i te mahi i waho, mahi i roto i te office, mahi i te pilot and he mahi taraka. (K611–m8)

(Yes, mathematics is important ... to help you to get a job outside, work in an office, be a pilot, and work with trucks.)

To support learning

Mēnā kua mahi pāngarau koe, ka taea koe ki te mahi i ērā atu mahi, nā te mea kua mōhio kē, arā ka eke tō hinengaro ki tērā tino taumata ka hiahia koe. (K35–m7)

(If you've done mathematics, you can do other work, because you already know (things), that is, your mind has gone up to a level that you want.)

Nā te mea ka, mēnā kore koe ka mōhio i tētahi mea e pā ana ki te pāngarau, ka koretake rawa koe. (K32–m8)

(Because if you don't know something about mathematics, you're useless.)

‘Cause it gives you a good education. (K61–m7)

Nā te mea he pai mō tō roro. (K49–m6)
(Because it’s good for your brain)

Mehemea e hiahia ana koe ki te whai māramatanga ki ngā mahi e hāngai ana ki te nama, āe, ēngari mēnā kāre koe e hiahia, kāre he tino take. (K41–f6)
(If you want to understand work to do with number, yes, but if you don’t want to, there’s no point.)

Money/shopping

Nā te mea i te wā ka tipu ake koe me whakamahi koe, pērā mēnā kei te haere koe ki te toa and then ka pātai, “He aha tērā amount of change?” (K36–m7)
(Because when you grow up you will use it, just like if you go to the shop and then ask, “What is the amount of change?”)

Ka mahi koe ki roto i te toa, ka hoatu ētahi tāngata he moni, ka hoatu koe he moni, ngā moni, um rerekē. (K56–f8)
(When you work in a shop, some people will give you money, you give back different money.)

Ki te kaute ētahi mea ... te moni me te kai. (K110–m8)
(To count things ... money and food)

Everywhere

Because you see it everywhere

To be successful at counting

Um ... ka taea koe ki te kaute. (K15–m5)
(Um ... so you can count.)

So I’ll know how to add up. (K68–m8)

Key Points

An overwhelming majority of these students concluded that mathematics was important. When probed, 29 out of these 55 students attributed this importance to gaining various forms of employment, using money, or the idea that mathematics was part of their everyday surroundings.

Mathematics was considered by the other students to be important for learning, getting access to a good education, or improving one’s state of mind. Of interest is that some students seemed to use mathematics to make judgments about their own and others’ intelligence. This group perceived that mathematical competency indicated a greater level of general intellectual ability. It would seem that some students have formulated the idea that mathematics as a subject enjoys high status and that such competency is desirable. This thinking can affect the self-esteem and self-worth of Māori students (Rubie, Townsend, & Moore, 2004).

Question 3:

- I a koe i te kāinga, i wāhi kē, he whakaaro ōu, he mahi pāngarau i roto i ōu mahi? Pēhea mēnā ka haere koe ki te taha o ōu mātua?
(When you’re at home or at other places, do you think about mathematics or do any mathematics? What about if you’re out with your parents?)

Yes	No	Don’t know
38	22	1

Thirty-eight students said that they were involved with some mathematics when out and about with family or friends. The categories they identified included:

School mathematics	Games	Shopping	Other context	Everything	Don't know
14	9	9	4	1	1

School mathematics

Ko ngā mahi noa iho o te mahi kāinga ... ka hoatu a Matua, te kaiako i ngā mahi kāinga. (K32–m8)

(Just homework ... our teacher gives us homework.)

Ka mahi ahau ētahi o ngā hautau ki te kāinga me ētahi tāpiri, tangohia. (K21–f5)

(I do some fractions at home and some adding, some subtraction.)

Games

Ētahi wā a te wā, kāre he mahi ki te mahi, ka haere au i runga i te ipurangi, arā, ka haere atu ki tērā mea Fun Brain. (K39–m6)

(Sometimes when I don't have any work to do, I go onto the Internet, and I go to that thing Fun Brain.)

Yup, we play Mancala, and it's good. Those ... numbers and you have to count them. (K53–f8)

Āe, i te wā ka tākaro mātou i roto i te waka, ka haere mātou, anā ka kite mātou e hia ngā waka ka haere mai, āe. (K38–f7)

(Yes, when we play in the car, we're going along, and we see how many cars are coming.)

Shopping

Ā, ngētehi wā ka kaute au i ōku moni. (K18–f8)

(Sometimes I count my money.)

Ā, i te wā ka haere ki te toa, ka kaute e hia te utu mō te rare, te kai rānei. (K33–m8)

(At the time we go to the shop, I count how much is the cost for lollies or food.)

Other contexts

I te wā ka haere mātou ki te marae me kaute ahau i ngā tēpu, i ngā pereti. (K210–m6)

(When we go to the marae, I count tables and plates.)

Ētahi wā ka haere mātou ki runga i ngā hararei, nō reira pea tekau mā whā o mātou i runga waka, ka kite, kei te haere ki korā, kei te haere ki korā, kia pērā, ētahi wā ka mahi mō te haere ruku moana, mō te āhua o te huarere, ā, hei te tahi karaka he tai timu, hei te ono karaka ... kia pērā, āe. (K21–f7)

(Sometimes we go on a holiday, like when we go here and there, sometimes we do [maths] when diving at sea, for the weather, and, at a certain time, it's low tide, at six o'clock ... like that, yes.)

Everything

Āe, ngā mahi katoa. (K34–f8)

(Yes, in everything)

Key Points

Further questioning later in the interview revealed that most of the students were able to articulate that mathematics did play a part in their out-of-school activities with whānau or friends. However, later analysis showed that for one-third of this particular group, the type of mathematics activities

they disclosed was closely allied to algorithmic procedures. Other students expressed connections with mathematics in contexts such as games and shopping. Only one child made an explicit link between mathematics and the marae.

Question 4:

- Ki a koe, he take nui te ako i ngā whakarea, ngā whakarau? He aha ai?
(Do you think it's important to learn your times tables? Why?)

Yes	Don't know	No	Sometimes
52	5	3	1

Fifty-two students thought that learning their times tables was important. Reasons given were:

A way of coping	For the future	An end in itself	A basis for further learning	To develop relationships between mathematics ideas	Important but don't know why
16	8	5	5	4	14

A way of coping

Nō te mea i te wā ka haere koe ki tētahi atu kura, i te wā ka pakeke ake koe, arā, kore koe ka mōhio, pea ka whakamā, ka tino whakamā mai i ngā tāngata. (K410–f5)
(Because when you go to another school, when you get older, if you don't know, you might be embarrassed by the other people.)

Āe, nā te mea mēnā ka haramai tētahi atu kaiako i te wā kua māuiui tō kaiako arā ka kī ia he aha te toru whakarau whā, toru whakarau rima, ka kī te whakautu. (K42–m7)
(Yes, when another teacher comes to your room because your teacher is ill and says to you what is 3 times 4, 3 times 5, you need to say the answer.)

Because if somebody asks you a question, in a split second you have to answer, like you have to reply back without going counting with your hands. (K67–m8)

Ka pātai ia he whakarea te ono whakarea iwa, āe, me mōhio mātou te whakautu, nā, ko te rima tekau mā whā. (K17–f6)
(When he/she asks you 6 times 9, yes, we should know the answer, it is 54.)

For the future

Nā te mea kia mōhio koe i te wā ka haere koe ki te whare wānanga; ka mōhio koe he aha te mahi. (K29–f6)
(Because so you'll know when you go to university; you'll know what the work is.)

Nā te mea mēnā hiahia koe ki te haere ki tētahi mahi, te bank, me aro tōtika ki ngā mahi pāngarau, nā te mea he pāngarau i roto i ngā moni. (K47–f7)
(Because when you want to go to work, at a bank, you should know mathematics because there's maths in money.)

Um, just in case you don't really go to university or something, you can use it when you work in a, like, a dairy or a shop or something. (K52–m7)

An end in itself

Kia mōhio koe i ngā whakarau. (K34–f8)
(So you know your times tables)

A basis for further learning

You can use it for other things; your times tables. (K57–f7)

To develop relationships between mathematics ideas

Nā te mea mēnā ka mahi mātou i ngā whakarea ka mōhio mātou ki te mahi i ngā divided by and ... (K21–f5)

(Because if we can do multiplication, we know how to do divided by and ...)

Important but don't know why

Fourteen of the students thought that learning times tables was important but were not able to provide a reason for thinking this.

Key Points

Most of the students interviewed were adamant that it is vital to learn times tables. The significance that these students placed on learning times tables is consistent with the findings of Grootenboer et al. (2002). The students in this study provided a variety of reasons for needing to know their times tables. Those in the largest category indicated that they felt pressure to be able to respond quickly to mathematical questions when asked. For this group, knowing their times tables seemed to provide them with an element of security. They felt that they could cope with any situation that demanded such responses.

It is a concern that, of the 52 students who thought that it is important to learn time tables, 14 were adamant that it is important for people to know or learn their times tables but were not able to articulate a purpose for doing so. These students are unwittingly accepting an idea that knowing times tables is an important attribute of mathematical competency. More emphasis could be placed on helping students to appreciate a purpose for learning their times tables.

Other students had a view that times tables are an integral part of the broader mathematics arena. They could see the usefulness of times tables for their future mathematics education as well as their present situation.

Question 6:

- Ka whakarite koe i ētehi whāinga i ā koe e ako ana i te pāngarau? He aha ētehi?
(Do you set goals when learning mathematics? Can you tell me some?)

Yes	No
20	41

The 20 students who set goals have been further categorised in the following ways:

Specific mathematics goals	General	No example
10	6	4

Specific mathematics goals

Kia mōhio ahau i ngā whakautu mō ngā tau ā-ira i te mea ... āe, me ngā ōrau, me ngā hautau. (K33–m8)

(That I will know the answers for decimals because ... yes, and percentages and fractions)

Like, oh, sometimes I set [out] to learn all my plastic [sic] facts. (K64–f8) (referring to her basic facts)

General

A te wā kua tīmata te tau hou, āe ... pērā ki te eke he pai. (K39–m6)
(When a new year starts, yes ... [I] like to get better.)

Um, like, you might wanna be a mathematics teacher. (K66–f7)

Like, good education for work and all of that. (K610–f7)

Kia mōhio ahau i ngā mea tino uaua. (K19–f8)
(So that I will know the hard ones)

Key Points

About one-third of these students indicated that goal setting formed part of their mathematics education. Their reasons for establishing goals were disparate. Some had goals that were mathematically specific and focused on a current need, while other goals were more general. Anthony and Walshaw (2007) state that the setting of goals should involve remembering the “big picture” in mathematics, not just a small one. Being able to retain the “big picture” aligns with a Māori world view where everything is interdependent (Pere, 1994). For Māori students to gain the most from their mathematics education, more consideration could be given to this philosophical thrust.

Two-thirds of the students did not set goals. Irvin (2007) argues that if students are encouraged to collaborate with their teachers to set goals, this will increase their ownership and hence their participation in the classroom.

Conclusion

This study indicates that many of the students held the view that mathematics is important for their learning but confined this mana to the realm of school mathematics. About half of the students were unable to verbalise connections between school mathematics and out-of-school contexts where mathematics could be employed. Most of the students seemed to think that learning times tables was an important personal benchmark for coping in the school context. They did not readily link this mathematics idea to other worldly situations.

Some students were setting goals linked to their mathematics learning. Research indicates that setting and monitoring goals is a useful strategy for increasing students’ engagement and achievement. More deliberate and organised support for capitalising on this mechanism may help Māori students to develop a greater appreciation of the purposes for learning mathematics. Such an approach would support notions of self-monitoring and the students’ “ownership” of their mathematics learning.

Māori students have a right to be educated to their fullest potential. This right must extend to their mathematics education so that they can access and enjoy the full benefits of being Māori within a global community. Greater achievement by Māori students in mathematics education means that they will be empowered and consequently able to make critical decisions about events that affect them and others. To ensure such achievement occurs, their mathematics education may need to play a greater role in affirming them as Māori. Kura kaupapa Māori and wharekura would appear to be ideal contexts for such connections to be made.

There is limited research with Māori students educated in Māori-medium settings. Any views that Māori students might share as major stakeholders in mathematics education are worthy of

consideration. Continued listening and reporting of students' views will ensure that their thinking is commensurate with those of other stakeholders. Meaningful learning opportunities may then be maximised.

Recommendations

The researchers have been privileged to listen to the views of these Māori students regarding their mathematics education. The insights that the researchers gained from the students have led to the following suggestions for recommendations for Māori students in kura kaupapa Māori:

- As well as completing mathematical tasks, Māori students should be encouraged to consider the nature of mathematics.
- Māori students should be given greater opportunities to explore mathematics in a more integrated way that is consistent with a Māori world view.
- Māori students should be encouraged to appreciate and explore the strong mathematics within their culture and other cultures.
- Opportunities should be made to consider the alignment between Māori students' and their teachers' thinking in regards to mathematics and its purpose.
- Overt attention should be paid to goal setting in mathematics programmes.
- Research should be carried out to further explore Māori students' perspectives of mathematics education in order to better support their learning.

Hei Mihi

Hei kapi ake, ka haere tonu ngā mihi ki te iti me te rahi me ā rātou tautoko, mō tā rātou ūtanga mai ki te kaupapa. Mei kore rātou, e kore e pēnei rawa te puta o ngā maramatanga me ngā momo kōrero hei tautoko i te kaupapa nei. Mauri ora ki a tātou!

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