Teacher Expectations, Ethnicity and the Achievement Gap

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Abstract The aim of this mixed methods study was to explore the relationship between teacher expectations and student ethnicity. Factors that contributed to the achievement gap were also investigated. The study involved 15 mathematics teachers and 361 students from five urban secondary schools in Auckland. Fifteen teachers completed questionnaires and 10 teachers also participated in semi-structured interviews. Findings revealed that teachers' expectations differed depending on the ethnicity of the student, even when controlling for achievement. Expectations were highest for Asian and Pākehā students, and lowest for Pasifika and Māori. Interviews with teachers confirmed lower expectations for Māori. Eight out of 10 teachers interviewed believed there were deficits in Māori and Pasifika students' home backgrounds and that they lacked goals, motivation and aspirations. When asked about the achievement gap, all 10 teachers again referred to perceived deficits in Māori and Pasifika home backgrounds, and students' attitudes as contributing factors.

Keywords Teacher expectations · Ethnicity · Māori achievement · Achievement gap

Introduction

The Achievement Gap in New Zealand

The gap between the highest and lowest achieving ethnic groups is a serious issue in New Zealand. In 2013, 78.7 % of Pākehā and 82.0 % of Asian students in Year 11

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achieved Level 1 of the National Certificate of Educational Achievement (NCEA), while only 55.3 % of Māori and 64.8 % of Pasifika students gained the qualification (NZQA 2014). Additionally, in 2012 one in 10 Māori left school without any qualifications, three times higher than the rate for Pākehā (Ministry of Education 2014a). Despite an improvement in achievement levels for all ethnic groups between 2009 and 2013, the achievement gap persists (NZQA 2014).

Teacher Expectations and Ethnicity

While high teacher expectations have positive effects on student achievement, low teacher expectations are acknowledged as one factor that contributes to student failure (Good and Nichols 2001). Moreover, ethnicity is a critical contributor to teacher expectations (Good and Nichols 2001; Rubie-Davies et al. 2006) with expectations lower and more negative for indigenous and minority group students than they are for White students (Gay 2005; McKown and Weinstein 2002; St. George 1983).

Expectations for Māori

Research into Māori student achievement has revealed that teachers have lower expectations for Māori than for other ethnic groups (Alton-Lee 2003; Bevan-Brown 2000; Rubie-Davies et al. 2006) and Māori do achieve at levels below Pākehā and Asian students (Caygill et al. 2008; NZQA 2014). One of the foremost New Zealand research studies into Māori achievement at secondary school was Te Kotahitanga (Bishop 2007; Bishop et al. 2003, 2009; Mahuika et al. 2011). Bishop and colleagues found that the poor relationships Māori students had with their teachers were a significant factor in their underachievement at school. Poor relationships were often exacerbated by low teacher expectations, deficit beliefs and an unwillingness by some teachers to take responsibility for student learning. Rubie-Davies et al.'s (2006) and St. George's (1983) studies concur with Bishop and colleagues' findings. St George's (1983) study, which investigated teachers' perceptions of Pākehā and Polynesian primary school students, found that teachers believed Māori (and Pasifika) students lacked the characteristics necessary for academic achievement, including a positive home background and an interest in learning. Rubie-Davies et al.'s (2006) study explored differences in teacher expectations and teacher judgements of reading for primary school students. Findings revealed that of all the ethnic groups, teachers' expectations were lowest for Māori. At the beginning of the school year, results of running records revealed that Māori reading levels were similar to all other ethnic groups' but teachers expected Maori achievement gains to be less than for any other ethnic group. By the end of the year, Māori achievement was significantly below Pākehā students'. This appeared to show that ethnicity was a factor in forming teacher expectations (Rubie-Davies et al. 2006).

Expectations for Pasifika

Although Pasifika students achieve similarly to Māori, teacher expectations are higher for Pasifika (Rubie-Davies et al. 2006). Even with seemingly high teacher expectations, Pasifika students are not achieving well at school (NZQA 2014) and this has been attributed to deficit beliefs about Pasifika; a lack of understanding of Pasifika students' identity; poor student–teacher relationships and ineffective pedagogy (Spiller 2012).

Expectations for Asian and Pākehā

Teacher expectations for Asian and Pākehā students have been incorporated in the same section because these are two groups of students who are, overall, the most successful at school. Interestingly, Pākehā/White students are the least affected by teacher expectations and instead are more likely to be influenced by their parents' beliefs (Good and Nichols 2001). With most teachers coming from a White, middle class background, "White middle-class students may be at an advantage at school as they are more likely to be perceived by their teachers as the 'norm' and familiar with the normative behaviours and values perpetuated by the school and expected by many of their teachers" (Riley and Ungerleider 2012, p. 317). This does not explain why Asian students do well in New Zealand compared with Māori students as the culture of the school and ethnicity of the teachers often does not match theirs. Even Asian students from disadvantaged backgrounds are considered to be conscientious and industrious (Lee 1994; Rubie-Davies et al. 2006) and there is a perception that Asian students have supportive families with high expectations for their achievement (Lee 1994; Rubie-Davies et al. 2006). While this may be true for some students, Ameratunga and Horner (2011) reported that "Chinese and Indian students were more likely than New Zealand European students to experience family adversity or hardships" (p. 172).

The Current Study

The two main aims for this research study were to examine the relationships between teacher expectations for student achievement and ethnicity and to examine teachers' perceptions of the factors that contribute to the achievement gap. The focus on Year 9 and 10 is important as students may be more vulnerable to teacher expectations during these years (Ministry of Education 2008; Rubie-Davies et al. 2010) and furthermore, the greatest number of school stand-downs, suspensions and exclusions in New Zealand occur for this age group (Ministry of Education 2014b) so positive teacher expectations, relationships and quality instruction are vital for them. The achievement gap in New Zealand continues to be an issue with Pākehā and Asian students achieving at much higher levels than Māori and Pasifika students. This study proposed that low teacher expectations for students from ethnic minorities may contribute to the achievement gap.

Hence, the research questions for this study were:

1. Do teachers' expectations differ depending on the ethnicity of the student?
2. If teachers have low expectations or high expectations for some ethnic groups, why is that?
3. What are teacher perceptions of the factors that contribute to the achievement gap between Pākehā and minority group students in New Zealand?

Method

This study employed a mixed-methods explanatory design model (Creswell and Plano Clark 2007) where quantitative data from questionnaires and standardised mathematics achievement data were collected and analysed in the first phase using SPSS. In the second phase, qualitative data were collected from teacher interviews. The transcripts were analysed thematically and the steps outlined in Braun and Clarke's (2006) inductive approach for analysing qualitative data were followed. Once analyses were completed, the results from both phases were interpreted together.

Participants

The participants were 15 mathematics teachers (6 male and 9 female) who were surveyed about the students in one of their Year 9 or 10 mathematics classes. This curriculum area was selected solely because standardised test data was able to be obtained from e-asTTle. The ethnic groups represented by the teachers ($N = 15$) were Pakeha ($n = 5$), Pasifika ($n = 3$), Asian ($n = 6$), other ethnicity ($n = 1$). The five schools in the study included low, mid and high decile schools from the South, East and Western suburbs of Auckland. "A school's decile rating indicates the extent to which it draws its students from low socioeconomic communities" (Ministry of Education 2013a, "School decile ratings," para. 2). At a decile one school, most of the students come from low socioeconomic backgrounds while decile 10 schools have the smallest numbers of students from low socioeconomic backgrounds (Ministry of Education 2013a). The ethnic groups represented by the students ($N = 361$) were Māori ($n = 68$), Pasifika ($n = 182$), Pākehā ($n = 50$), Asian ($n = 54$) and 'Other' ethnicities ($n = 3$). Māori are the indigenous population of New Zealand; Pākehā refers to all fair-skinned, non-Maori New Zealanders; Pasifika encompasses people who originate from the Pacific Islands including Micronesia, Melanesia and Polynesia; and Asian refers to people who originate from Central and Southern Asia, South-East Asia and North-East Asia. Ethnicity information was not available for 4 students who were consequently eliminated from the analyses.

Measures

The measures used included the *Estimation of Achievement* survey (Rubie-Davies et al. 2015), e-asTTle mathematics data, and semi-structured interviews with teachers. The *Estimation of Achievement* survey measured teachers' expectations.

Teachers estimated each student's current mathematics level and the predicted level of each student by the end of the following year if they maintained current progress. The *mathematics level* items asked teachers to rate each student on a seven-point scale from 'very much below average' to 'very much above average'. Teachers also rated their students on the likelihood they would: (1) get a good school report; (2) have a successful school career; and (3) achieve well in class. These three items used a different seven-point scale ranging from 'strongly disagree' to 'strongly agree'. The items were aggregated and a mean for each student was calculated. The internal consistency (α reliability) for this instrument was $\alpha = .89$.

e-asTTle was used to assess students' achievement in mathematics. e-asTTle is a standardised assessment tool used widely in New Zealand schools for reading, mathematics and writing. Some schools provided their e-asTTle curriculum level rather than raw score so all results were converted to the seven-point scale used in the teacher survey. The mean curriculum level for Year 9 and 10 from e-asTTle Norms and Curriculum Expectation tables (Ministry of Education 2010) became the mid-point of four on the seven-point scale which ranged from 'very much below average' = 1 to 'very much above average' = 7. For example, for Year 9 students in the first quarter of the year, a curriculum level of <3P = very much below average, 3A = moderately below average, 4B = just below average, 4P = average, 4A = just above average, 5B = moderately above average, and >5P = very much above average. Student achievement data were compared with teacher expectations in order to determine, relative to achievement, if teacher expectations were high or low.

Results

Quantitative Results

Teacher Expectations and Student Achievement in Mathematics by Ethnicity

Mean teacher expectations in mathematics were highest for Asian students and lowest for Māori (see Table 1). A one-way between-groups ANOVA revealed a statistically significant difference for teacher expectations between the five ethnic groups, $F (4,352) = 14.05$, $p < .001$, $\eta^2 = .14$, a large effect size (Cohen 1988). However, the results for the "Other" group are not discussed because they were a very small group and also a disparate group. A post hoc Tukey test showed statistically significant differences between Māori and Pākehā ($p < .04$), Māori and Pasifika ($p < .02$), and Māori and Asian students ($p < .001$). In every case, expectations were lower for Māori (see Table 1). There were also statistically significant differences between Pasifika and Asian ($p < .001$) and Pākehā and Asian ($p < .001$) with expectations higher for Asian students than for the other groups (Table 1). There was, however, no statistically significant difference between teacher expectations for Pasifika and Pākehā students.

Asian students had the highest mean mathematics achievement of the four ethnic groups and Māori had the lowest (see Table 1). Further examination using a one-

Table 1 Means and standard deviations for teacher expectations and student achievement in mathematics

Ethnicity	Teacher expectations		Mathematics achievement	
	Mean ($n = 357$)	SD	Mean ($n = 323$)	SD
Asian	6.13	.87	4.35	1.86
Pākehā	5.28	1.11	3.84	1.77
Pasifika	5.20	1.04	2.74	1.69
Māori	4.73	1.16	2.61	1.79
Other	5.93	.76	4.00	2.65

way between groups ANOVA, revealed a statistically significant difference between the ethnic groups, $F(4,318) = 11.63$, $p < .001$, $\eta^2 = .13$, a large effect size (Cohen 1988). A post hoc Tukey test showed statistically significant differences in achievement between Māori and Pākehā ($p < .004$) and Māori and Asian students ($p < .001$), with Māori achieving at lower levels than Pākehā and Asian students. There was a statistically significant difference between Pākehā and Pasifika ($p < .002$), and Pasifika and Asian students ($p < .001$), with Pasifika achieving at lower levels than Pākehā and Asian students. There were no statistically significant differences between Māori and Pasifika achievement or between Asian and Pākehā.

In summary, teacher expectations were higher for Pasifika than for Māori although actual achievement was equivalent. Expectations for Pasifika and Pākehā students' achievement were similar despite Pākehā scoring much higher in e-asTTle than Pasifika. Similarly, teacher expectations were significantly higher for Asian than for Pākehā students although the difference in actual achievement between them was not statistically significant.

The Effect of Ethnicity on Teacher Expectations After Controlling for Student Achievement

A hierarchical linear regression was used to investigate whether student ethnicity predicted teacher expectations, after controlling for mathematics achievement. When achievement was entered alone, it significantly predicted teacher expectations, $F(1,321) = 134.16$, $p < .001$, $R^2 = .295$. The R^2 indicated that 29.5 % of the

Table 2 Hierarchical linear regression analysis summary predicting teacher expectations for ethnicity, when controlling for achievement ($n = 323$)

Variable	B	SEB	β	R^2	ΔR^2
Step 1				.295	.295
Mathematics achievement	.319	.028	.543***		
Constant	4.352	.100			
Step 2				.330	.035
Mathematics achievement	.312	.027	.531***		
Student ethnicity	.223	.054	.188***		
Constant	3.765	.173			

*** $p < .001$

variance in teacher expectations could be explained by student achievement in mathematics.

When student ethnicity was added at Step 2, it significantly improved the prediction, R^2 change $= .035$, F change $(1,320) = 16.871$, $p < .001$. The total variance explained by the model as a whole was 33 %, F $(2,320) = 78.83$, $p < .001$, $R^2 = .330$, a medium effect size (Cohen 1988). The beta weights and significance values presented in Table 2 indicate that student achievement in mathematics ($\beta = .531$) predicted teacher expectations. However, student ethnicity contributed significantly to predicting teacher expectations over and above the contribution of achievement ($\beta = .188$).

Qualitative Results

This section reports findings from the teachers' semi-structured interviews.

How Teachers Form Expectations for Students

Every teacher reported that students' standardised test results influenced their expectations—they had high expectations for high achieving students and low expectations for low achieving students. Four teachers also said their expectations depended on the stream or band they were teaching. As one teacher explained:

> If it's an accelerated band Year 9, my expectations are very high. The students have already been categorised as high ability students and I have seen that if my expectations are high, I get good results out of them. So it's always high if it's a top class [T-3A].

There was evidence of differential access to the curriculum, whereby top classes had the opportunity to complete NCEA Level 1 internal achievement standards in Year 9 instead of waiting until Year 11, the official start. This gave these students two more years to obtain the qualification than students in low ability classes.

Five teachers alleged their expectations did not differ by ethnicity because they did not notice ethnicity. One stated, "When I have a group of students in front of me, that's exactly what I see, a group of students. I don't see ethnic groups" [T-6C].

While believing they held the same expectations for all students, four teachers said they knew of other teachers whose expectations were low for Māori and Pasifika. For example:

> …when I started in this school…one of the [other] teachers actually said to me, 'These kids, we're just teaching them for 'Achieved' [lowest pass level in NCEA]. So… they are not expecting their students to do any better… We're just teaching them for 'Achieved'. They are not capable of 'Excellence' [T-7B].

However, this teacher also said her students were not capable compared with Pākehā students from other schools. She said: "…students who do well in the school, they may be the top student here but when they go to university, they are not competing at the same level as the White students …" [T-7B].

Teachers' Beliefs and Perceptions About Māori

Eight of the 10 teachers interviewed made negative comments about Māori, describing them as 'naughty', 'disrespectful' and 'arrogant'. One stated, "…when you have a disrespectful student who easily swears or swears at you, they don't care—they are Māori" [T-1B].

Eight teachers claimed Māori home backgrounds were detrimental to their achievement at school. They said Māori parents were not involved in their children's education, were unsupportive and failed to take proper care of them. For example:

> For Māoris [*sic*]… nobody picks up the responsibility for them until something drastic happens. …I think their kids… don't have enough role models…and Mum is acting like her mother did, which was leaving it to everybody else in the family [T-10C].

Five teachers identified Māori parents' apparent lack of education as a contributing factor to their children's underachievement. One teacher stated, "Most of their parents are not well educated so would not know how to support their children's learning …" [T-9A].

The issue of criminal offending was raised by three teachers who appeared to associate crime primarily with Māori. One teacher said, "I watch this Police 10/7… The suspects will always be Māori" [T-1B]. Another had an underachieving Māori student whose mother was "in and out of jail" [T-9A] and said, "I think that explains the whole thing" [T-9A]. Finally, one teacher reported, "…there are a lot of Māori in our jails". While she acknowledged, "…there are some very, very smart Māoris [*sic*]…" She also stated, "…but they are not achieving what they're capable of through education and they are finding another avenue to use their brains" [T-2B].

Teachers' Beliefs and Perceptions About Pasifika

Pasifika students' mathematics achievement was similarly low to that of Māori but comments from teachers revealed a contradictory belief that Pasifika achieved well. One teacher stated, "…some of them need a little bit more of a push. But they are capable of doing as well as the other groups" [T-3A]. Another, however, thought Pasifika achievement was poor and said, "…they are very lazy and they do not spend enough time studying and learning" [T-7B].

Pasifika parents were perceived to have low education levels and unskilled jobs and there was concern that Pasifika students did not understand the connection between education and employment. One teacher said:

> I talk to my students about the importance of education and…education is related to how much you get paid. There was this boy in my class who said, 'Oh Miss, I don't really care because I am just going to work in a factory because it pays you more'. I said, 'Where?' And he said, 'The *[processed meat]* factory'. I said, 'How do you know?' And he said, 'My mum works

there'. And I said, '… but you can get paid more if you have better qualifications…you don't have to work such long hours' [T-7B].

Despite identifying that Pasifika parents lacked the skills to help their children with schoolwork, five teachers believed that Pasifika parents were "…very supportive in their children's learning at school" [T-9C] and three teachers also recognised the positive influence and significance of the church for Pasifika. One said, "The Tongans are hard-working because of the church, which is a big thing in their lives…" [T-10C].

Teachers' Beliefs and Perceptions About Asian Students

Seven of the 10 teachers interviewed considered Asian students to be the highest achievers of all ethnic groups. One stated, "…they do have better mathematical skills compared to other students in class…" [T-3A]. Asian success at school was also connected to their family's high expectations. Teachers believed Asian students' lives "revolve around doing school work…that their time is pretty much allocated to improving themselves, whether it is musically or culturally…" [T-4C].

Teachers' Beliefs and Perceptions About Pākehā

Overall, the least was said about Pākehā students and it appeared they were viewed as a heterogeneous group. Comments included, "Not all of them are high achievers…it's a mixture" [T-3A] and "…they can be good, bad or indifferent…" [T-10C]. The Pākehā culture was predominantly viewed positively. Their standard of living was perceived to be better and students were perceived as coming from "professional families" [T-1B]. Parents had higher qualifications, better jobs and "would know how they could lead their children, in a good way" [T-9A]. This home environment enabled parents to be supportive and "concentrate more on their children's learning at school" [T-9A]. One teacher believed Pākehā may be more successful at school because their ethnicity matched their teachers. He said, "…I would imagine the ethnicity for teachers is most probably European so we can relate to them a bit better" [T-10C].

The Achievement Gap in New Zealand

All of the teachers placed responsibility for the achievement gap with students, parents and home background. The history of underachievement and failure that many students brought to secondary school meant that they had low self-belief which teachers saw as a barrier to learning. One stated:

> …A lot of them don't think they can do well…At the beginning of the year I told them that they are the top students…I asked them to put their hand up if you think you can equally compete with a student at *[prestigious boys' school]*… that you can do as well as students from *[prestigious boys' school]*…and none of them put their hand up [T-7B].

Seven teachers also claimed that low parental support was a factor. While teachers said that some parents had high expectations and were supportive, others were unsupportive or lacked the ability to be supportive. One teacher said, "Some of our parents… feel that anything educational or academic is the responsibility of the school…" [T-6C].

In addition to not receiving support from families, there was a perception that students lacked positive academic role models. One teacher stated:

> Some of them already know that because for generations their families have been on the dole, that's where they're going to end up. And as much as you paint this rosy future…some of them just don't buy into it [T-6C].

The importance of building relationships with students and getting to know them was raised by four teachers. This was one idea that suggested a teacher's behaviour could reduce the achievement gap. One teacher explained that it was vital to connect with students. She said that teachers:

> …have to learn about how important it is for Māori and Pasifika students…to build a relationship with them. They [teachers] don't always know how to build that relationship…Some teachers just think …'I'm just a teacher, I'm here to teach. Look, I've put the work on the board. Right, that's it. Now it's up to you to do the learning' [T-2B].

Finally, one teacher believed an unpressured approach could help reduce the achievement gap. Intentionally or not, this sounded a lot like low expectations. He said:

> I have learnt that there are only a certain amount of things you can do…There are some things that are beyond my control… I don't try and make tall claims like, 'I want to get everyone to Merit'. I don't do that… Sometimes, trying to put them under pressure is not very good [T-8A].

Discussion

The major finding of this study was that teachers do appear to have different expectations for students depending on their ethnicity. With mean teacher expectations all higher than students' actual achievement in mathematics for each ethnic group, this could be interpreted as teachers having high expectations. However, teachers only expected Māori to achieve at an average level, while expecting Asian students to achieve at an above-average level. The difference between teacher expectations and actual achievement in the e-asTTle mathematics test was the greatest for Pasifika students. It is puzzling why teachers believed that these students would achieve highly given that many recognised that Pasifika's low achievement levels were of concern. Perhaps these students were achieving well compared with others in their class or school. However, their e-asTTle results suggested that they were performing at below average levels compared with national norms. It is interesting that Rubie-Davies et al. (2006) also found that

teachers had high expectations for Pasifika students compared to their actual achievement. As the means aggregate individual achievement scores, it is relevant to note that in this study 20 % of Māori students achieved at an above-average level in mathematics. Therefore, it is important to acknowledge that Māori students are capable of achieving highly, regardless of the school they attend and in spite of low teacher expectations overall for Māori (Bishop 2007; Rubie-Davies et al. 2012).

The following sections discuss the key themes identified in the qualitative results: denial of ethnicity, how streaming impacts teacher expectations and student achievement, responsibility for student learning and achievement, deficit beliefs and low expectations for Māori and Pasifika, teacher beliefs and perceptions of Asian students, and teacher beliefs and perceptions of Pākehā students.

Denial of Ethnicity

Some teachers denied ethnicity was a factor in their expectations and stated they did not notice the ethnicity of their students. Ethnicity and achievement are uncomfortable topics and teachers may avoid it due to fears that they could be labelled racist (Howard and del Rosario 2000), but talking about the ethnicity of students does not automatically make someone racist. Failing to acknowledge students' racial and cultural background and excluding material that is culturally relevant to the students, however, *is* racist (Howard and del Rosario 2000). The unwillingness to talk about ethnicity, even in a positive way, raises questions about the teachers' beliefs and suggests a lack of awareness about the importance of ethnic identity for many indigenous and minority students (Webber 2011).

How Streaming Impacts Teacher Expectations and Student Achievement

All schools in the study operated some form of streaming. Teachers acknowledged they had high expectations for top streams and lower expectations for low streams, and other studies support this finding (e.g. Hornby and Witte 2014; Ireson et al. 2005). Differential treatment of students and differential access to the curriculum was evident in the way that some schools approached NCEA. Many Year 9 and 10 students in higher streams began NCEA early, which meant that by the time they reached Year 11, the official starting point, they already had the majority of credits needed to pass Level 1 mathematics. This is a very positive initiative for the students who had access to these classes, but showed differential treatment in favour of high expectation students as low and middle stream students were not offered this opportunity. Research has shown that students in lower streams receive less exciting and challenging work than students in higher streams (Diamond et al. 2004; Weinstein et al. 2004) and that this differentiation in opportunity to learn contributes directly to the widening of the achievement gap (Linchevski and Kutscher 1998). Further, the categorising of students into achievement groups is known to be inherently inaccurate (Ireson et al. 2005). It would be more equitable to offer the opportunity of starting NCEA early to all students, including lower stream classes. This would benefit these students even if the teachers believed that they would take

more than a year to achieve Level 1, as it would provide students additional time before the end of secondary school (if needed) to obtain these qualifications.

Responsibility for Student Learning and Achievement

A central theme in the interviews was that teachers did not appear to take responsibility for student achievement, assigning blame to students, families, and even other teachers. Studies have shown that schools where teachers place responsibility for learning with the student (and not with their teaching), have lower achievement levels than schools where teachers take responsibility for student learning (Delpit 2012; Ennis and McCauley 2002). Relationship-building between students and teachers is seen as crucial to first of all engage students in learning and then to raise achievement (Bishop 2011; Ennis and McCauley 2002; Hattie 2003, 2005; Spiller 2012). Only four teachers agreed that the relationships they built with students could reduce the achievement gap.

Deficit Beliefs and Low Expectations for Māori and Pasifika

A preponderance of teachers in this study believed that the underachievement of Māori was due to Māori parents not taking responsibility for their child's education, not being involved in their schooling, and demonstrating a general lack of concern. The general perception teachers appeared to have about Māori and Pasifika parents was that most were uneducated and therefore failed to provide appropriate support for their children. This stereotypical view of Māori and Pasifika parents is common in the literature (Bishop et al. 2003; Rubie-Davies et al. 2006; St. George 1983) and these negative assumptions are rarely made about the families of Pākehā and Asian students who underachieve.

Some statements that teachers in this study made about Māori and Pasifika students seemed contradictory. For example, one teacher said she believed Pasifika or Māori students could achieve as well as other ethnicities and that low self-belief was holding them back. When she asked her top class to raise their hand if they believed that they could compete with students from a prestigious boys' school, she was sad when none of her students raised their hand. However, she also said that even the top students in her school would not be able to compete at university with Pākehā students from other schools. With this in mind, it is hard to understand how she expected her students have high self-belief, when it appeared that she had low expectations for them.

Teacher Beliefs and Perceptions of Asian Students

Asian students were perceived to be the top achieving group and teachers had the highest expectations for these students. Interestingly, there was no statistically significant difference between Asian and Pākehā achievement and thus expectations for Asian students could be argued to be inflated. Teachers perceived Asian students to be more likely to have natural ability in mathematics and an excellent work ethic. They also thought Asian students came from better middle-class homes than Māori

or Pasifika students, but in low decile schools it is quite likely that some Asian students would be living poverty. Research has shown that Asians in New Zealand, overall, suffer greater hardships and live in poorer conditions than Pākehā (Ameratunga and Horner 2011).

Teachers Beliefs and Expectations of Pākehā Students

On average, Pākehā students achieve well at school and are the group against which other ethnic groups' achievement is habitually benchmarked. Pākehā students share the school's culture and the same ethnicity as many of their teachers. One teacher in this study suggested that because he was Pākehā it made it easier for Pākehā students to relate to him and vice versa. Teachers did not appear to hold deficit views about Pākehā students. The general perception was that Pākehā students did "better" at school and came from "better" homes with parents who supported their education.

Conclusion

The educational implications of these findings for Māori and Pasifika students are concerning. Many teachers appeared to operate within a deficit model where responsibility for underachievement was placed firmly with Māori and Pasifika students and their families (Bishop et al. 2003; Delpit 2012; Mahuika et al. 2011). The learning and achievement of these students may be at risk if teachers hold such low expectations and negative beliefs for them (Milner 2012). An aversion to addressing difficult issues around ethnicity and underachievement suggests that there may be resistance to supporting Ministry of Education initiatives designed to raise Māori achievement, which have demonstrated positive effects for both Māori and non-Māori students. These include Te Kotahitanga (Bishop et al. 2009), Ka Hikitia (Ministry of Education 2013b) and Tātaiako (Ministry of Education & New Zealand Teachers Council 2011).

This study aimed to explore whether teachers had differential expectations for students from the different ethnic groups in New Zealand. In the process, it exposed seemingly prejudiced, stereotypical and deficit beliefs of teachers towards indigenous and minority group students. As a result, there are a number of areas for future research in teacher expectations and Māori and Pasifika achievement.

This study focused on secondary school mathematics teachers. A focus for future studies could be the inclusion of teachers from other subject areas to achieve a broader picture of each student's school experience and to reveal if teachers from different curriculum areas have the same or different expectations for students. Additionally, the inclusion of classroom observations could have identified differences in teacher instruction at the differing band or stream levels and with each ethnic group.

Research into indigenous and minority student underachievement has reported students' parents or other factors in their home background as being responsible, but these accounts are from teachers who also report that they have not met the parents or visited their homes (St. George 1983). Obtaining data directly from parents

would provide a more balanced view. It is important that research into the achievement of indigenous students and those from ethnic minorities continues to locate the best practices to support students to achieve their potential.

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