

# **School-based mentoring: Examining the cultural and economic variations in engagement and effectiveness**

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## **Abstract**

*Youth mentoring programmes in New Zealand are often school-based and almost all have educational goals. It has been suggested that overseas models of mentoring may need to be adapted to meet the needs of New Zealand youth. Utilising a mixed-methods design, this study explored the engagement in, and effectiveness of, Stars, a New Zealand developed, school-based, mentoring programme designed to ease the transition to secondary school. Participants (1642 questionnaires completed) were Year 9 mentees from eight schools across New Zealand. Results indicated that Stars mentees were highly engaged in the programme, but particularly youth attending low-decile schools and schools that were predominantly Pasifika in ethnic composition. In addition, the programme appeared to increase acquisition of practical skills, working with others, connecting to communities, meeting personal achievements, improving relationships with friends, and developing relationships with older peers. The impact of school-based mentoring on the development of the Key Competencies is discussed.*

*Keywords: mentoring; educational achievement; Key Competencies; adolescence.*

## **Introduction**

The Ministry of Education (MoE) in its Statement of Intent 2008–2013 identified having all young people participating, engaged, and achieving in education as a strategic outcome over the next five years. Further, it has been noted that learning and engagement is optimised by challenging and supporting students in complex and wide-ranging contexts (MoE, 2007). More specifically, five Key Competencies have been identified as important to learning across subject areas: *thinking; using language, symbols, and texts, managing self; relating to others; and, participating and contributing*. The Ministry has also noted that, while many students are engaged and achieving, there is a percentage of students in New Zealand schools who are disengaged in learning and in need of additional support (MoE, 2008).

The symptoms of disengagement relate to a young person switching off or disconnecting from their learning and are often manifested as negative attitudes to learning, educational underachievement, truancy, exclusions, and behavioural problems (Sodha & Gugliemi, 2009). In addition, transitioning schools can be a time of particular vulnerability (Holcomb-McCoy, 2007). Eccles (2004) noted that, during the transition to secondary school, students are at-risk of disengaging from school, and declining in their academic achievement, motivation, classroom preparation, and self-esteem. Recently, the transition from intermediate school to secondary school in New Zealand has received increased attention from the government (MoE, 2008; Wylie & Hodgen, 2009). In one study, around one-third of the Year 9/10

students did not find school engaging and one-fifth wanted to leave school as soon as possible (Wylie & Hipkins, 2006). Others have noted that truancy, stand-down, suspension, and expulsion rates increase rapidly from age 11 (e.g., Gibbs & Poskitt, 2010). Further, attitudes towards reading, writing, and mathematics decline in the middle years as students become more critical about some of the teaching they experience (Cox & Kennedy, 2008). Research in the US has indicated that formal mentoring programmes have been successful in facilitating academic engagement among vulnerable youth (Karcher, Davis, & Powell, 2002), particularly during times of transition (Johnson, Holt, Bry, & Powell, 2008). However, less is known about the impact of mentoring during youth transitions within the New Zealand context. Over the past two decades, mentoring has flourished in New Zealand (Farruggia, Bullen, Davidson, et al., 2011) and many schools now include mentoring programmes as part of their repertoire in addressing the needs of young people (Evans & Ave, 2000). Indeed, schools are the most common location of mentoring programmes in New Zealand (Farruggia, Bullen, Davidson, et al., 2011). Typically, school-based mentoring has been promoted as “prevention” aimed at raising academic achievement for struggling students (Evans, Jory, & Dawson, 2005). In addition, school-based mentoring has also been geared towards keeping youth at school, since school completion has been identified as a protective factor against many risk factors such as delinquency and suicide (Fergusson, Beautrais, & Horwood, 2003). A recent systematic review of 26 youth mentoring programmes in New Zealand found that 96% of programmes included in the review had at least one educational goal, regardless of the location (e.g., school, community) of the programme (Farruggia, Bullen, Davidson, et al., 2011). Further, this review noted that despite the growth of mentoring programmes in New Zealand, there appears to be limited quality research on the effectiveness of these programmes.

In the United States, where much of the evidence-base has been developed, mentoring is well established, now operating for over 100 years. In contrast, mentoring in New Zealand is relatively new (Evans et al., 2005) and reveals both innovative and imitative features. For an innovative example, comparatively unique to Australia and New Zealand, are mentoring wilderness experiences (Evans et al., 2005). With isolated and unspoiled landscapes as the back-drop, wilderness experiences provide students with the opportunity to face a variety of mental and physical challenges, aiming to bring about positive change (Hattie, Marsh, Neill, & Richards, 1997). In wilderness experiences, the challenging situations require persistence, teamwork, and self-belief, and typically promote leadership and social functioning (Sibthorp, 2003).

## **Mentoring in the New Zealand context**

Mentoring wilderness experiences are particularly relevant within the New Zealand context as they capitalise on unique cultural attributes, such as risk-taking and adventure. Further, these outdoor programmes may capture the strong connection to the land expressed within the Māori cultural context. However, mentoring programmes in New Zealand are also imitative as there has been a wide importation of mentoring programmes from other countries, namely the United States (Evans et al., 2005). It has been suggested that New Zealand youth may be culturally different

from the youth that these imported programmes were originally designed for (Farruggia, Bullen, Solomon, Collins, & Dunphy, 2011), and there is increasing discourse around the need to provide mentoring programmes better suited to New Zealand (Evans & Ave, 2000; Evans et al., 2005). As an example of an imitative feature, Evans and Ave (2000) noted that mentoring programmes typically employed individualistic single relationships between mentees and mentors. They further asserted that individual mentoring reflected a strong American cultural ethos, which may not fit with some New Zealand youth who may align more closely with collectivism. Within collectivist societies, the importance of the group and feeling connected to one's cultural group are paramount. Further, Māori traditions of tuakana/teina, where older whānau members support younger members (Metge, 1995) demonstrate that group mentoring is a common cultural practice.

It is argued in this study that the current traditional one-to-one-style mentoring programmes are individualistic and may have limited benefit to youth in New Zealand who are more closely aligned with collectivist values (i.e., Māori and Pasifika). However, there appears to be limited research that examines mentoring within a cultural context. In addition, programmes that incorporate an outdoor adventure component may be particularly effective as they are aligned with New Zealand's cultural landscape and values.

## **Stars mentoring transition programme**

The Stars mentoring programme is one such programme. Falling under the Foundation for Youth Development (FYD) umbrella, Stars is a school-based programme designed to help students transition into secondary school. It is run across five regions—Auckland, Northland, South Waikato, Wellington, and Canterbury. Stars is a group-based, peer-mentoring programme whereby all Year 9 students (mentees) are divided into small groups and matched with a group of Year 12 and 13 students (mentors). By utilising a whole-school approach, as opposed to a targeted approach, the potential negative consequences of stigmatisation relating to achievement may be mitigated (Herman, 2009).

Mentees meet weekly in school with peer mentors for 30 to 45 minutes. Students follow a structured programme focusing on life skills such as goal setting, time management, and building positive relationships. All mentors are trained by Stars coordinators, and following training, mentors are provided with manuals with detailed plans for each session.

In addition to the weekly meetings, there are three activity components which mentees engage in alongside their mentors: adventure camp, community project, and community adventure. Adventure camp occurs during the first term of the school year. The Stars adventure camps have replaced pre-existing school-run camps. During the one-week camp, wilderness is used as a medium for students to develop self-knowledge, teamwork, outdoor skills, and goal setting. During the community project component, mentees plan, organise, and spend one day on a project that involves giving something back to their community. Past projects have included working at the SPCA (Society for the Prevention of Cruelty to Animals), making morning tea at a retirement home, and removing graffiti from a bus shelter

and painting a mural in its place. The aim of the project is to help students connect with their community and to think about how they can contribute to it. Community adventure involves students exploring their local area while engaging in challenging scavenger-hunt-type activities. The aim of the community adventure is to give students the opportunity to gain an understanding of what community resources and amenities are available to them.

The Stars programme has nine objectives that focus on helping students successfully transition to secondary school: increasing academic and social skills; building, self-competence and communication skills; building friendships among peers and senior students; forging connections with teachers outside the classroom; building goal-setting skills relating to academics and health and fitness; increasing awareness of healthy behaviours around food, exercise, and the risks of peer pressure and substance abuse; forging connections between students and the school community; and fostering positive perceptions of the school (FYD, 2010, p. 1). Programmes such as Stars can play an important role in facilitating school engagement particularly during times of vulnerability (i.e., transition). Further, utilising a group-mentoring approach, combined with a wilderness experience may be particularly effective within the New Zealand cultural context.

## **Research aims and hypotheses**

The purpose of this study was to examine the suitability of a school-based youth mentoring programme developed for the NZ context in supporting Year 9 students in the transition to secondary school. Study aims and hypotheses were embedded within the objectives of the Stars programme (FYD, 2010). Specifically, we were interested in students' level of engagement in the programme, as well as the effectiveness of the programme in meeting the stated objective. In addition, we were interested in determining if engagement and effectiveness varied according to decile and ethnic composition of the schools. As decile and ethnic composition are often intertwined it was essential to look at both. Four hypotheses were therefore tested, including:

H1: Students will demonstrate high levels of engagement in the programme.

H2: Students in lower decile schools and in schools with high predominance of Pasifika and Māori students will show higher levels of engagement.

H3: The programme will be effective in facilitating positive transitions to secondary schools by meeting the stated objectives including: increasing academic and social skills; building, self-competence and communication skills; building friendships among peers and senior students; forging connections with teachers outside the classroom; building goal setting skills relating to academics and health and fitness; increasing awareness of healthy behaviours around food, exercise, and the risks of peer pressure and substance abuse; forging connections between students and the school

community; and fostering positive perceptions of the school as perceived by students, staff and families.

H4: Students in lower decile schools and in schools with high predominance of Pasifika and Māori students will show higher levels of effectiveness in meeting the stated objectives. (FYD, 2010, p. 1).

## **Methods**

### **Participants**

Participants were Year 9 students (mentees) enrolled in Stars in eight schools. In total, 1,642 mentee questionnaires were completed following the three activity components (adventure camp ( $n=779$ ); community project ( $n=381$ ); and community adventure ( $n=223$ ), and at the end of the programme (i.e., overall evaluation,  $n=259$ ). The total percentage of possible responses was adventure camp 79%; community project 39%; community adventure 23%; and overall evaluation 26%. The questionnaires were completed anonymously therefore it was impossible to follow up non-respondents. The degree to which mentees completed more than one questionnaire was unknown.

As individual demographic data were not collected, Education Review Office (ERO) reports that were published closest to programme implementation (2009) provided demographic information on each of the schools (ERO, 2007–2009). Stars schools were located nationwide in low to middle income communities with participating schools' deciles ranging from 1 to 7 (see Table 1). The size of the participating schools varied and there was a relatively equal proportion of males and females across all schools. The schools' ethnic composition varied with some reflecting the diversity of the New Zealand population, while others were more homogenous with substantially large proportions of Pakeha (New Zealand/European), Māori, or Pasifika students. Individual schools are labelled using a letter to protect confidentiality.

Stars Schools								
	A	B	C	D	E	F	G	H
Gender								
Male	58%	56%	49%	47%	43%	49%	53%	51%
Female	42%	44%	51%	53%	57%	51%	47%	49%
Ethnicity								
Māori	5%	91%	30%	9%	42%	20%	49%	40%
Pasifika	76%	2%	2%	0%	0%	9%	26%	16%
Pakeha	8%	4%	65%	87%	53%	55%	24%	42%
Asian	3%	0%	2%	0%	2%	14%	1%	0%
Other	8%	3%	1%	4%	3%	2%	1%	2%
Decile	2	1	4	7	3	5	2	4
Year of ERO report	2009	2008	2007	2007	2009	2007	2009	2009
Number of Year 9 Students	60	97	79	43	66	327	122	190
School Roll	280	450	479	485	442	1234	371	933

**Table 1.**  
Stars' schools demographic information based on ERO reports

## Procedure

Prior to the programme, FYD obtained passive consent from parents for their child to participate in Stars which required parents to sign and return a form if they refused to allow their child to participate in the programme and related research. The Stars programme was offered to every Year 9 student in participating schools and administrators for Stars reported that it was uncommon for students or parents to opt out or withdraw from the programme.

Questionnaires were administered by Stars personal and teachers. These were completed voluntarily after each component (i.e., adventure camp, community project, and community adventure), and an overall evaluation was completed as the end of the programme. Due to the anonymous nature of the questionnaires, as noted previously, individual demographic data (e.g., gender, ethnicity) were not collected, therefore, differences at the individual level could not be investigated. Stars received incomplete data (i.e., evaluations were completed for only some components) from five schools. For four of these, data was received for three of the four data-collection points, and for one school, data was received for two of the four data-collection points. Anonymous data were provided to the authors who did not participate in

data collection. Approval to analyse this secondary data was secured from the University of Auckland Human Participants Ethics Committee.

## Measures

*Demographics.* Schools were coded based on decile rating and ethnic composition of the students as described in ERO reports (ERO, 2007–2009). Decile ratings were: 1=*low decile* (decile 1 and 2), 2=*middle-low* (decile 3 and 4), and 3=*middle* (decile 5 to 7). Ethnic composition was coded as 1=*predominantly Pasifika*, 2=*predominantly Māori*, 3=*predominantly Pakeha*, and 4=*diverse*. For a school to be coded as predominantly one ethnic group, that group needed to be the majority (i.e., more than 50%) with no other ethnic group of a similar proportion.

*Stars Year 9 Questionnaire.* This 20-item questionnaire was developed by FYD in 2006, based on qualitative feedback received from mentees in 2005. The items covered a diverse range of topics relating to interpersonal skills (e.g., “Because of Stars I work better as a group”) and school connectedness (e.g., “Feel more settled in school”). Using a 5-point scale from 1=*not at all* to 5=*a lot*, mentees were asked to indicate how much taking part in each component and the programme overall had “helped them”. No guidance was given to students as to how to answer these questions. Mentees were also asked to answer two open-ended questions: *Please write about your [component/overall] experience;* and *What were the most important things you learned?*

## Plan of Analysis

### Qualitative data

Qualitative data were used to assess engagement in the programme and the impact of the programme on the adjustment of the students. Thematic analysis was used to capture prevalent patterns or themes across the responses, following the guidelines outlined by Braun and Clarke (2006). Themes were compared across schools, taking into account school decile and ethnic composition.

Thematic analysis was conducted on a 30% proportional sample of each school’s responses in each component, (i.e., adventure camp, community project, community adventure) and overall evaluation; questionnaires were randomly selected by school. Questionnaires were removed from the total qualitative sample pool if the open-ended questions were unanswered or not legible. Reliability of the coded themes was checked using inter-rater agreement where two researchers independently coded responses. In all instances disagreements were discussed and agreements were reached.

### Quantitative data

Quantitative data were used to assess the effectiveness of the programme and analyses were performed in three stages. The first stage involved conducting maximum likelihood factor analysis to determine if the 20 scale items reflected multiple constructs. As a correlation among items was expected, a direct oblimin rotation was used to allow for inter-correlation between items (Wegener & Fabrigar, 2000). Guided by the results of the factor analysis, in the second stage of the

analyses, individual item scores were combined and total mean scores for each component were calculated. In the third stage, to ascertain variation in programme effectiveness as a function of school decile and school ethnicity, analyses of variance (ANOVA) tests were conducted. Scheffé's post hoc tests were chosen due to their robustness and flexibility in handling unequal group sizes. All statistical analyses were conducted using SPSS version 18.

## Results

### Programme engagement (qualitative)

Incorporating mentees' evaluative responses regarding the programme, a single theme relating to students' *overall experience* of the programme was constructed from the data (Figure 1). The inter-rater reliability was .99. This theme showed that positive experiences and high engagement were most common as almost all mentees, across all components, described the programme as "fun", "awesome", "cool", and "rewarding". Of all responses for adventure camp, 10% of mentees responded positively about their peer mentors, and no negative comments were relayed. For final evaluation, 13% of mentees responded positively about their peer mentors and only a small percentage (3%) responded negatively (e.g., "boring"). This pattern was consistently prevalent across all schools regardless of decile or ethnic composition. Responses were received from only a possible 42% of students and so can only be seen to reflect the attitudes of that group of students.

Adventure Camp	Community Project	Community Adventure	Overall Evaluation
<ul style="list-style-type: none"> <li>• Overall experience</li> <li>• Practical skills</li> <li>• Working with others</li> <li>• Personal achievement and development</li> <li>• Friends</li> <li>• Peer mentors</li> </ul>	<ul style="list-style-type: none"> <li>• Overall experience</li> <li>• Practical skills</li> <li>• Working with others</li> <li>• Community</li> </ul>	<ul style="list-style-type: none"> <li>• Overall experience</li> <li>• Practical skills</li> <li>• Working with others</li> <li>• Community</li> </ul>	<ul style="list-style-type: none"> <li>• Overall experience</li> <li>• Practical skills</li> <li>• Working with others</li> <li>• Community</li> <li>• Personal achievement and development</li> <li>• Friends</li> <li>• Peer mentors</li> </ul>

**Figure 1.**  
Qualitative themes constructed from mentees' written responses

### Programme effectiveness (qualitative)

Relating to effectiveness, six themes were constructed: acquisition of practical skills; working with others; community, personal achievements; friends; and peer mentors.

The inter-rater reliability for each theme was high: acquisition of practical skills (.93), working with others (.98), community (.91), personal achievements (.98), friends (.98), and peer mentors (.98). Two themes, acquisition of practical skills and working alongside others, were common across the programme; while others were specific to a particular component, such as community, personal achievements, friends and peer mentors (Figure 1). As revealed through these themes and in line with engagement, mentees reported a variety of positive outcomes that occurred throughout the programme, with very few negative outcomes. Despite being a programme objective, discourses about adopting healthy behaviours were notably absent.

Comprising of the skills gained through participating in Stars, the *acquisition of practical skills* theme showed that mentees reported acquiring skills throughout the programme: adventure camp (25%), community project (49%), community adventure (33%), and, overall evaluation (21%). The types of skills gained varied across components. For example, skills noted within adventure camp centred on camp activities and safety issues, such as learning how to “abseil”, “kayak” and how to “wear a safety harness”. In community project, mentees reflected on a range of learnt skills from making a worm farm to learning good painting techniques.

The theme *working alongside others* reflected mentees’ reports of interacting with others or teamwork which was present across the programme: adventure camp (51%), community project (35%), community adventure (40%), and overall evaluation (55%). This theme was particularly pronounced in adventure camp. For example, mentees commented they had learnt: “to treat others good and respect others” and “to communicate and co-operate well with the members of the group”.

The *community* theme was comprised of mentees’ comments relating to connecting to, and interacting with, others within their local area, and was noted only within three components: community project (22%), community adventure (23%), and overall evaluation (9%). For example, within community project, this theme consisted of “caring” for their community and environment, such as “To help out people in the community” and “To look after the community and birds, trees, plants”.

Focusing on how mentees reported achieving at a personal level, the *personal achievements* theme was noted only within adventure camp (47%) and overall evaluation (34%). For example, within adventure camp, one mentee commented: “I can achieve stuff if I put my mind to it”. In addition, some of the mentees’ personal achievements focused around goal setting.

The *friends* theme focused on developing friendships and getting to know their peers. This theme was specific to the adventure camp component (20%) and overall evaluation (34%). In the overall evaluation one mentee reported: “My experience with Stars has made me more friends”.

In the *peer mentors* theme, mentees made both positive and negative responses about their peer mentors. The theme was specific to adventure camp and overall evaluation. For adventure camp, 10% of mentees responded positively about their peer mentors, and none responded negatively. Typically, positive comments

included peer mentors helping mentees overcome fears and mentees enjoying the opportunity to get to know senior students. For overall evaluation, 13% of mentees responded positively about their peer mentors and 3% responded negatively. Negative comments were focused on the peer mentors not being helpful. It is important to note that the majority of mentees made no mention of their peer mentors (adventure camp 90%, and overall evaluation 84%).

Finally, comparisons were made to determine if some themes were particularly prevalent for youth attending low-decile schools or attending schools with particular ethnic group predominance. Themes were consistently prevalent across all schools regardless of decile or ethnic composition.

### **Programme effectiveness (quantitative)**

Exploratory factor analysis using a maximum likelihood extraction with oblimin rotation revealed that all 20 items loaded on a single factor for each of the components. The only exception was for community adventure which suggested a two-factor solution, although all items loaded highest on factor one. Thus, the one factor solution was retained for all. The proportion of variance explained and range of factor loadings were: adventure camp  $s^2=.47$ , range .55 to .78; community project  $s^2=.53$ , range .55 to .80; community adventure  $s^2=.53$ , range .60 to .81; and overall evaluation  $s^2=.62$ , range .70 to .84. In addition, the single construct demonstrated high reliability across components: adventure camp  $\alpha=.94$ , community project  $\alpha=.95$ , community adventure  $\alpha=.97$ , and overall evaluation  $\alpha=.95$ . Therefore, composite mean scores were calculated by combining all 20 items for all components

The total means scores revealed that the programme was highly effective for the mentees: adventure camp ( $M=3.79$ ,  $SD=.76$ ), community project ( $M=3.53$ ,  $SD=.87$ ), community adventure ( $M=3.67$ ,  $SD=.79$ ), and overall evaluation ( $M=3.64$ ,  $SD=.92$ ). Next, a series of ANOVAs were run to test differences in the level of effectiveness as a function of decile and ethnic composition (Tables 2 and 3).

	Low	Middle-low	Middle	F (df)	Post hoc comparison
Component	M(SD)				
Adventure Camp	3.99(0.69)	3.80(0.75)	3.63(0.79)	14.432** (2,776)	M<ML<L
Community Project	3.86(0.81)	3.52(0.92)	3.38(0.82)	8.69*** (2,378)	M, ML<L
Community Adventure	3.91(0.74)	3.40(0.66)	3.11(0.74)	22.54*** (2,220)	M, ML<L
Overall	4.03(0.72)	3.67(0.85)	3.08(1.01)	20.34*** (2,256)	M<ML<L

Note. \*\*\*  $p < .001$

**Table 2.**

**Comparison of programme effectiveness by decile of school**

	Predom . Pasifika	Predom . Māori	Predom . Pakeha	Diverse	F(df)	Post hoc comparison
Component	M(SD)					
Adventure camp	4.06(0.64)	3.84(0.73)	3.60(0.80)	3.96(0.69)	15.52** * (3,775)	Pak < D, Pas
Community project	3.97(0.70)	3.92(0.65)	3.34(0.81)	3.64(0.96)	8.96*** (3,377)	Pak < D, Pas
Community adventure	4.13(0.79)	—	3.13(0.74)	3.75(0.66)	28.04** * (2,220)	Pak < D < Pas
Overall evaluation	4.03(0.72)	—	3.08(1.01)	3.67(0.85)	20.34** * (2,256)	Pak < D < Pas

Note. — indicates that data were not collected from these schools for this component.

\*\*\*  $p < .001$

**Table 3.**

**Comparison of programme effectiveness by ethnic composition of school**

With regard to decile, youth in low decile schools rated the programme's effectiveness significantly higher as compared to youth in middle-low or middle decile schools across all four components. In addition, middle-low students reported significantly greater effects for adventure camp and overall engagement as compared to students attending middle decile schools. With regard to ethnic composition, students attending predominantly Pasifika schools reported

significantly greater effects of the programme for all four components as compared to students attending diverse schools or students attending predominantly Pakeha schools. Further, students attending diverse schools also reported significantly greater effects compared to youth attending predominantly Pakeha schools for community adventure and overall engagement. It should be noted that the number of students in predominantly Māori schools who completed questionnaires was relatively small for community project and this could account for the lack of a significant difference with students attending predominantly Pakeha schools.

## **Discussion**

The purpose of this study was to examine the suitability of a school-based youth mentoring programme developed for the New Zealand context in supporting the adjustment of young people. Variation in engagement and effectiveness as a function of school decile and student ethnic composition were also explored. Engagement will be discussed first, followed by effectiveness.

### **Engagement in the programme**

Qualitative responses indicate that the students were highly engaged in the programme. This engagement was found across all data-collection points and there was no variation by school decile or ethnic composition. This finding is important for two reasons. First, it demonstrates that the school-based programme actually did engage the students during this time of transition. Second, it implies that, by taking a whole-school approach, students who typically may be targeted for intervention (e.g., at-risk for school-leaving) receive the intervention without the stigma often associated with a targeted programme.

Transitions can be a time of increased vulnerability for youth (Holcomb-McCoy, 2007). Such research supports current thinking that student engagement in school and learning decreases during the middle years of schooling, and highlights the importance of programmes such as Stars in promoting school engagement. More specifically, at a time when truancy, stand-down, suspension, and expulsion rates and negative attitudes are on the increase, Stars can act as vehicle to engage vulnerable students. Not only did the Stars programme engage the students at a time of potential risk for dis-engagement, but it also equally engaged students regardless of decile or ethnicity.

One of the challenges that targeted mentoring programmes may face is to mitigate the effects of targeting on stigmatising students (Larose & Tarabulsky, 2005). The negative consequences of stigmatisation, particularly in relation to achievement are well documented in the literature (Herman, 2009). A whole-school approach removes the threat of stigmatisation as all students are identified for the programme. Programmes often find that young people with the greatest need tend to be the most difficult to engage and this approach not only engages, it also potentially mitigates stigmatisation.

## Effectiveness of the programme

In examining the effectiveness of Stars, the high mean scores and moderate standard deviation indicated that the majority of students evaluated the programme highly, well above the mid-point. In addition, the qualitative data gave insight into how the programme supported the mentees' adjustment across diverse contexts.

The qualitative results of this study indicated links between the outcomes of the Stars programme and four of the five Key Competencies that have been identified as important to learning (MoE, 2007). For example, students reported gaining new knowledge and skills (*thinking*), learning how to set goals (*managing self*), learning how to listen and get along with others (*relating to others*), and interacting and caring for their community (*participating and contributing*). Stars may have optimised development through joint ventures involving mentees working together with their peer groups and peer mentors across diverse contexts, which appeared to promote the acquisition of key competencies. These findings suggest that academic learning and engagement may be strengthened when links are created between programme objectives and the Key Competencies of the New Zealand curriculum. In addition, as noted within the curriculum, this learning can be reinforced when students are supported across a wide range of contexts as provided by Stars (MoE, 2007).

A point of interest from the study was that of all components, adventure camp provided an abundance of rich learning opportunities as reflected in the qualitative data. It is noted, however, that the number of mentees evaluating adventure camp was also the largest. This finding provides further support that outdoor adventure programmes may be particularly relevant within the New Zealand context as they capitalise on the country's unique cultural attributes, such as risk taking and adventure (Evans et al., 2005). The positive response to the adventure camp component may also be linked to the delivery timing as all but one school camp occurred at the beginning of the year. Research suggests that due to the structurally larger size of secondary schools, friendships and social supports are often disrupted as students enter secondary school, which in turn can lead to negative outcomes associated with transition (Benner & Graham, 2009). Noting the key role that friendship plays in transitioning to secondary school, the findings here suggest that the programme and particularly the adventure camp component encouraged friendships, especially early on in the school year and may have eased school transition for mentees.

Another point of interest is that the vast majority of mentees made no mention of their peer mentors. It is unclear why this occurred since the mentors appear to be an integral part of the Stars programme. Mentors spend 35–40 minutes a week with their mentees and also accompany them on all three activity components. Perhaps mentors were not mentioned because mentees were not directly asked to comment on this aspect of the programme and their relationship was asked as one of the survey questions. It could also be that because meetings occurred regularly, these relationships were taken for granted. Finally, it is possible that, despite the regular contact, peer mentors are not as integral to the programme as assumed. Future evaluations of the programme should directly elicit feedback on the peer-mentoring relationship and determine its importance.

It is important to note that, despite being a programme objective, discourses about adopting healthy behaviours relating to food, exercise, substance misuse and peer pressure were notably absent. It is unclear why students did not provide responses reflecting this objective as healthy behaviours are included as part of the structured programme. It is possible that the programme did not adequately address this in delivery. It could also be that, as noted by others (e.g., Farruggia, Bullen, Davidson, et al., 2011), programme objectives that focus on changing behaviours can be more difficult to achieve when compared with objectives that focus on changing attitudes. A final, non-competing explanation could simply be that this aspect of the programme was not as much fun for the students, and, therefore, they did not mention it when asked about their experiences.

The next set of findings examined variation in effectiveness as a function of decile and ethnic composition of the school. While the qualitative data showed no difference, the quantitative data indicated that the programme was more effective for youth in low decile schools and for student in predominantly Pasifika schools. This lack of differences in the qualitative data could stem from differences in analytic approaches. By taking a thematic approach, the qualitative data allows for greater breadth and richness in the responses whereas the quantitative data, utilising a likert scale, allows for a more nuanced examination of the variability in degrees of effectiveness. The quantitative results are consistent with previous research (DuBois, Holloway, Valentine, & Cooper, 2002) whereby larger effect sizes were found for mentoring at-risk youth, suggesting a “ceiling effect” whereby vulnerable youth may have more room for change.

It is well documented that young people who grow up in poverty (reflective of low decile schools), a significant dimension of social disadvantage, are more likely to be exposed to cumulative, multiple stressors. For example, their housing is more likely to be overcrowded and of poor quality, they are at higher risk of experiencing more family turmoil, greater child-family separation, and higher levels of violence (St. John & Wynd, 2008). Stars appears to strengthen students’ relationships with others and aids development by providing opportunity for young people to positively engage with others in different settings. Although positive relationships and being connected to school cannot act as a remedy to life stressors, they can buffer their effects and help young people to cope with them (Coleman, 1987).

This study also indicated higher evaluation scores for mentees from schools with larger proportions of Pasifika mentees. It was unclear (due to missing data) if the results were similar for students in schools with high proportions of Māori. In line with recent thinking (Evans et al., 2005; Farruggia, Bullen, Solomon, et al., 2011), these results support the notion that group mentoring may be particularly effective for Pasifika students, who may be more closely aligned with a collectivist culture. Those who align more closely with collectivism are more likely to value the group above the individual, and be more familiar with working towards a group goal (Ho, Holmes & Cooper, 2004). The results from this study suggested that the group context met the needs of Pasifika students by providing an environment reflective of family values whereby individual success is measured by group success.

Another possible, non-competing explanation for the higher evaluation scores was the peer mentoring aspect of the programme. It might be that the effectiveness of peers as mentors could be heightened for Pasifika students who are more likely than their Pakeha counterparts to live in extended families and live in naturally mentor-rich environments (Fa'alau, McCreaner, & Watson, 2005). The peer-mentoring aspect may sit culturally well with these students for whom learning from and teaching family members is more commonplace.

### **Limitations and future directions**

Several limitations are noteworthy and should be addressed in future research. Firstly, the measure was a single, self-report instrument. Other measures such as test scores, attendance rates and behavioural referrals would help determine the extent to which self-reported changes are manifested in observable behaviours. Evidence of improvements in test scores would be particularly advantageous as Māori and Pasifika students achieve disproportionately lower academically than their peers (Ministry of Māori Affairs/Te Puni Kokiri, 2000; Ministry of Pacific Island Affairs, 2003). In addition, the measure that was used had only a single-factor structure which prevented an examination of the different areas in which the programme was effective, such as the importance of the peer mentors or improving health behaviours. Furthermore, pre-test measures were not conducted to assess change over time. Another limitation of the study is that a large proportion of questionnaires were not completed (58%), particularly from schools that predominantly had Māori students. This could create bias and, thus, limits the generalisability of the study. Additionally, as the questionnaires were completed anonymously it was not possible to investigate individual differences regarding gender and ethnicity. This anonymity also meant that it was not possible to follow up on non-respondents and increase the response rate. Finally, since there was no comparison group, it cannot be concluded that group mentoring was more effective than had the delivery been 1 to 1; a comparison group, preferably with random assignment would be needed to draw that conclusion.

### **Conclusion**

In summary, the results provide support that school-based mentoring programmes can be effective in encouraging school engagement, particularly during times of vulnerability such as the transition to secondary school. In addition, engagement may be strengthened when programme objectives are aligned with the Key Competencies of the New Zealand Curriculum. The results also add to our understanding of the importance of taking into account the unique cultural context of New Zealand during programme development and implementation. Programmes that take into account cultural contexts can be particularly effective for culturally diverse youth. More specifically, these findings suggest that programmes that utilise a group-mentoring format and incorporate an outdoor adventure component may be particularly effective in meeting the needs of culturally diverse youth and facilitating engagement. This engagement may, in turn, provide the impetus required to keep the young people engaged in school and on a pathway to educational success.

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## References

- Benner, A., & Graham, S. (2009). The transition to high school as a developmental process among multiethnic urban youth. *Child Development, 80*, 356–376. doi:10.1111/j.1467-8624.2009.01265.x
- Braun, V., & Clarke, V. (2006). Using thematic analysis in psychology. *Qualitative Research in Psychology, 3*, 77–101. doi: [10.1191/1478088706qp063oa](https://doi.org/10.1191/1478088706qp063oa)
- Coleman, J. (1987). Families and schools. *Educational Researcher, 16*, 32–38. doi: 10.3102/0013189X016006032
- Cox, S. & Kennedy, S. (2008). Students' achievement as they transition from primary to secondary schooling. Wellington: Ministry of Education.
- DuBois, D. L., Holloway, B. E., Valentine, J. C., & Cooper, H. (2002). Effectiveness of mentoring programs for youth: A meta-analytical review. *American Journal of Community Psychology, 30*(2), 157–197. doi: 10.1023/A:1014628810714
- Eccles, J. S. (2004). Schools, academic motivation, and stage-environment fit. In R. M. Lerner & L. Steinberg (Eds.), *Handbook of adolescent psychology* (2nd ed., pp. 125–153). Hoboken, NJ: John Wiley & Sons.
- Education Review Office (2007–2009). School Education Review. Retrieved from <http://www.ero.govt.nz/Early-Childhood-School-Reports/School-Reports>
- Evans, I. M., & Ave, K. T. (2000). Mentoring children and youth: Principles, issues, and policy implications for community programmes in New Zealand. *New Zealand Journal of Psychology, 29*(1) 41–49.
- Evans, I. M., Jory, A., & Dawson, N. (2005). International: Australia and New Zealand. In D. L. DuBois, & M. J. Karcher, (Eds.), *Handbook of youth mentoring* (pp. 408–422). Thousand Oaks, CA: Sage Publications.
- Fa'alau, P., McCreaner, T. & Watson, P. (2005). Samoan youth and family relationships in Aotearoa. *New Zealand Pacific Health Dialogue, 11*, 17–24.
- Farruggia, S. P., Bullen, P., Davidson, J., Dunphy, A., Solomon, F., & Collins, E. (2011). The effectiveness of youth mentoring programmes in New Zealand. *New Zealand Journal of Psychology, 40*, 235–251.

- Farruggia, S. P., Bullen, P., Solomon, F., Collins, E., & Dunphy, A. (2011). Examining the cultural context of youth mentoring: A systematic review. *Journal of Primary Prevention, 32*, 237–251. doi: 0.1007/s10935-011-0258-4
- Fergusson, D., M., Beautrais, A. L., & Horwood, L. J. (2003). Vulnerability and resiliency to suicidal behaviours in young people. *Psychological Medicine, 33*, 61–73. doi:10.1017/S0033291702006748
- Foundation for Youth Development (2010). *Stars: getting it together* [Brochure]. Auckland, New Zealand: Author.
- Gibbs, R., & Poskitt, J. (2010). *New Zealand families: Student engagement in the middle years of schooling (Years 7–10): A literature review*. Retrieved from <http://www.educationcounts.govt.nz/publications/schooling/74625>
- Hattie, J., Marsh, H. W., Neill, J. T., & Richards, G. E. (1997). Adventure education and Outward Bound: Out-of-class experiences that make a lasting difference. *Review of Educational Research, 67*, 43–87.
- Herman, M. (2009). The Black-White-other achievement gap: Testing theories of academic performance among multiracial and monoracial adolescents. *Sociology of Education, 82*, 20–46.
- Ho, E., Holmes, P., & Cooper, J. (2004). Review and evaluation of the international literature on managing cultural diversity in the classroom. Wellington, NZ: Ministry of Education.
- Holcomb-McCoy, C. (2007). Transitioning to high school: Issues and challenges for African-American students. *Professional School Counselling, 10*, 253–260.
- Johnson, V. L., Holt, L. J., Bry, B. H., & Powell, S. R. (2008). Effects of an integrated prevention program on urban youth transitioning into high school. *Journal of Applied School Psychology, 24*, 225–246.
- Karcher, M. J., Davis, C., & Powell, B. (2002). The effects of developmental mentoring on connectedness and academic achievement. *The School Community Journal, 12*, 35–50. doi: 10.1002/pits.20025
- Larose, S., & Tarabulsky, G. M. (2005). Academically at-risk students. In D. L. DuBois, & M. J. Karcher (Eds.), *Handbook of youth mentoring* (pp. 440–453). Thousand Oaks CA: Sage.
- Metge, J. (1995). *New growth from old: The whānau in the modern world*. Wellington, NZ: Victoria University Press.
- Ministry of Education (2007). *The New Zealand Curriculum: The English-medium teaching and learning in years 1–13* Wellington, NZ: Learning Media.
- Ministry of Education (2008). *New Zealand schools: Ngā kura o Aotearoa (2008)*. Wellington, NZ: Ministry of Education.
- Ministry of Māori Affairs/Te Puni Kokiri (2000). *Progress towards closing social and economic gaps between Māori and non-Māori*. Wellington, NZ: Author.

- Ministry of Pacific Island Affairs. (2003). *Ala fou – new pathways: Strategic directions for Pacific youth in New Zealand*. Wellington, NZ: Author.
- St. John, S. & Wynd, D. (2008). *Left behind: How social & income inequalities damage New Zealand Children*. Auckland, NZ: Child Poverty Action Group Inc. Retrieved from <http://www.cpag.org.nz/assets/Publications/LB.pdf>
- Sibthorp, J. (2003). An empirical look at Walsh and Golins' adventure education process model: Relationships between antecedent factors, perceptions of characteristics of an adventure education experience, and changes in self-efficacy. *Journal of Leisure Research*, 35, 80–106.
- Sodha, S., & Gugliemi, S. (2009). *A stitch in time: Tackling educational disengagement interim report*. Retrieved from [http://www.demos.co.uk/files/Demos\\_stitch\\_in\\_time\\_report\\_C.pdf?1243336176](http://www.demos.co.uk/files/Demos_stitch_in_time_report_C.pdf?1243336176)
- Wegener, D. T., & Fabrigar, L. R. (2000). Analysis and design for nonexperimental data: Addressing causal and noncausal hypotheses. In H. T. Reis & C. M. Judd (Eds.), *Handbook of research methods in social and personality psychology* (pp. 412–450). New York, NY: Cambridge University Press.
- Wylie, C., & Hipkins, R. (2006). *Growing independence – Competent learners at 14*. Wellington, New Zealand: New Zealand Council for Educational Research.
- Wylie, C., & Hodgen, E. (2009). Transition to secondary school: Does it affect age-16 performance? Retrieved from <http://www.educationcounts.govt.nz/publications/ece/2567/35119/35120>

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