



MINISTRY OF  
SOCIAL DEVELOPMENT  
*Te Manatū Whakahiato Ora*

# **Evaluation of Project K**

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## Summary of Findings

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1. Project K participants improved their ability to master academic activities (e.g. How well can you pay attention during class? How well can you finish school assignments?). There was significantly<sup>1</sup> greater improvement for Project K participants than control group students at the end of the intervention and one year post programme. A similar trend was found for New Zealand Māori, female and low decile school students.
2. Project K students showed significantly greater improvement than the control group in their ability to form and maintain peer relationships and social assertiveness in the classroom (e.g. How well can you become friends with other people? How well can you take part in class discussions?) at the end of the intervention and one year post programme. A similar trend was found for New Zealand European students, males, female, low and high decile school students. Male students benefited more than females.
3. Improvement in the ability to ask for adult help, information and support (e.g. How well can you get adults to help you with a problem? How well can you get the information you need from adults?) was not as marked as other outcomes. Overall, the Project K group showed significantly greater improvement on this measure than the control group at the end of the intervention. However, these gains were not maintained at one year post programme. Low decile school and female students benefited more than high decile school and male students.
4. New Zealand European and Māori Project K students showed significantly greater abilities to make good career decisions and successfully execute career-related behaviours (e.g. Work out what job would be best for you; Perform well in a job interview) than the control group students at one year post programme. Project K students from high decile schools also showed significantly greater career decision self-efficacy relative to the control group.
5. No changes were observed between groups on measures of health and lifestyle. However, risky behaviour increased significantly for both groups over time.
6. National Certificate of Educational Achievement (NCEA) results were measured only at one year after Project K completion. New Zealand Māori students who participated in Project K showed significantly higher average total NCEA credits than their counterparts in the control group. Overall, Project K students earned more NCEA credits than those in the control group, but differences were not statistically significant.

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<sup>1</sup> The term significant indicates that we are using a 5% level of statistical significance, that is, the evaluators are 95% certain that the findings are valid.

## **Purpose**

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7. This report presents the findings of the outcome evaluation of Project K carried out by the Centre for Social Research and Evaluation (CSRE), Ministry of Social Development (MSD), over the period September 2004 through June 2007. The evaluation was conducted in partnership with the Foundation for Youth Development (FYD).
8. A randomised control trial (RCT) was used to evaluate outcomes for young people who participated in the Project K mentoring-based programme. The evaluation was designed to measure gains in academic performance, social and health outcomes, help-seeking, career decisions and other behaviours.

## **Background**

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9. The Project K Trust was established in 1995 by New Zealanders Graeme Dingle and Jo-anne Wilkinson in consultation with youth experts and educators. It is now known as FYD. FYD delivers a mentoring-based programme called Project K to inspire 14-15 year old students to maximise their full potential. The aims of the programme are to build self confidence, teach life skills and promote health and education.
10. Year 10 students who would benefit most from Project K are selected through a self-efficacy questionnaire survey (Appendix 1) and teacher ratings. Students who are likely to be high-achievers as indicated by the highest self-efficacy scores are excluded. Students with low self-efficacy scores are selected as eligible students. Students with severe personal problems needing specialist intervention (e.g. at risk of self-harm or suicide, serious substance abuse) are also excluded from participation for their safety and that of the other participants and staff. Following consultation with a school liaison team (Year 10 dean, counsellor and Project K programme director), eligible students are invited to participate, with parent/caregiver permission.
11. The programme is 14 months long and comprises the following three components:
  - wilderness adventure to learn goal setting, teamwork, perseverance, self-reliance and self-knowledge in three weeks
  - community stage where students adapt the lessons learned in the wilderness to their community and are challenged to explore the resources, opportunities and support available in their local areas. This stage takes 10 days over the course of several weeks
  - mentoring in which each student is paired with a trained mentor for one year. The mentor supports the student in achieving their self-set goals, provides an objective and friendly ear and helps sustain and strengthen the positive changes achieved in the first two stages.
12. The objectives of the Project K programme are to improve students':

- motivation to pursue education and employment
  - confidence to set challenging goals and motivations to achieve them
  - social relationships with peers and family
  - interactions with adults to obtain the support and resources they need
  - connectedness to their community and awareness of the resources and activities available to them, and the opportunities to contribute
  - attitudes toward health and behaviours that promote wellbeing.
13. In 2002, CSRE reviewed an evaluation undertaken by FYD that indicated gains in student self-esteem. An agreement was made between MSD and FYD in 2003 that a more robust evaluation would be important to determine the merits (if any) of the programme. Government allocated three years funding to FYD for an expanded programme from 2003/2004 and included provision for evaluation.
  14. The Ministry of Youth Development (MYD) contracted FYD to deliver the programme to 94 young people. At the same time CSRE, in partnership with FYD, implemented a RCT to evaluate the outcomes for these young people.

## **Methodology**

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15. FYD collected demographic and outcome data for the 94 Year 10 students participating in the Project K programme at 8 high schools. A control group of the same number of students, who were not Project K participants, was selected from the same schools. Upon exclusion of ineligible students, random allocation was carried out in a meeting held by the Programme Director and took place at the school during the school day. Students and parents who consented to participate were invited to a meeting. At the meeting students were randomly allocated to the Project K, control or reserve group. Names were randomly drawn from a container and those left undrawn formed a reserve group. If a student dropped out before the start of the programme, a replacement student of the same gender was drawn from the reserve group.
16. The control group, known as an active control group, had a fun day out to keep them engaged in the process but received no other special intervention. They had access to existing school services such as counselling as did the Project K group. In addition, the Project K team made three contacts with them in the first year of the programme (pizza for lunch, update contacts, etc.).
17. The actual sample sizes of the control group and Project K respondents changed over time as it has not always been possible to locate all participating students. After attrition the final sample sizes for control and Project K groups were 75 and 79 at the end of the programme and 70 and 74, respectively at one year post programme. Only 55 control and 54 Project K students participated in the academic self-efficacy test at one year post programme due to some students leaving school.
18. A range of schools were selected to include low (Decile 1-5) and high (Decile 6-10) decile levels. Students from the following schools participated in the programme:

- Otahuhu College, Manukau (Decile 1)
  - Tokoroa High School, Tokoroa (Decile 2)
  - Aotea College, Porirua (Decile 3)
  - Taita College, Lower Hutt (Decile 4)
  - St. Bernard's College, Lower Hutt (Decile 5)
  - Massey High School, Waitakere (Decile 6)
  - Queen's High School, Dunedin (Decile 6)
  - Taradale High School, Taradale (Decile 9).
19. FYD conducted surveys of self-efficacy and health and lifestyle with both the control and the Project K groups before the programme (baseline data), immediately after the programme was completed to record short-term progress, and one year later, to check whether progress was maintained over time. Goal achievements were measured for Project K group at post programme. National Certificate of Educational Achievement (NCEA) achievements were recorded at one year post programme in terms of both total NCEA credits and results of NCEA Level 1 test<sup>2</sup>.
20. Appendix 1 includes the self-efficacy questionnaire consisting of academic, social and help-seeking domains administered to Project K and control groups at pre and post programme. Appendix 2 includes the self-efficacy questionnaires consisting of academic, social, help-seeking and career decision domains administered to students enrolled in school at one year post programme. Appendix 3 includes the self-efficacy questionnaires consisting of social, help-seeking and career decision domains administered to school leavers at one year post programme. The health and lifestyle questionnaire is not included with this report.
21. As CSRE was not responsible for the collection of data, an independent auditor, KPMG New Zealand, was contracted to ensure the integrity of data collection by:
- Reviewing the data management procedures used by FYD following each of the data collection periods as above, to determine if they were in keeping with agreed standards.
  - Re-administering questionnaires to randomly selected participants at the end of programme and one year post programme, to check for consistency.
22. MYD contracted FYD to provide the data for the evaluation as follows:
- Baseline (pre-programme) data by end June 2005
  - End of programme (post programme) data by end September 2006
  - Post programme follow-up (one year post programme) data by end June 2007.

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<sup>2</sup> NCEA is New Zealand's main national qualification for secondary school students and part of the National Qualifications Framework. An NCEA Level 1 qualification is issued to learners who have achieved 80 credits at Level 1 or higher including eight credits from approved standards for literacy skills and eight credits from approved standards for numeracy skills.

23. The data were then analysed by CSRE in terms of the following four measures at pre, post, and one year post programme, where possible, for control and Project K students:
- Self-efficacy in academic, social, help-seeking and career decision making
  - Health and lifestyle
  - NCEA achievements (at one year post programme only)
  - Goal achievements (Project K group at post programme only).
24. All analyses were conducted using SAS software. Two sample t-tests were used to compare mean self-efficacy ratings between the different programme stages (pre, post, and one-year post) within the Project K and control groups. The same t-test was also used for comparison between Project K and control groups in number of goals achieved at the end of the intervention, and in mean career-decision self-efficacy and total NCEA credits at one year post programme.
25. The difference in differences method was used to estimate the net effect (gain or loss) of the intervention in academic, social and help-seeking self-efficacy. The following steps were taken: (1) the pair-wise differences between pre and post and between pre and one year post programme were calculated separately for the Project K and control groups; (2) the mean pair-wise difference of the control group was subtracted from the mean pair-wise difference of the Project K group to derive an estimate of the net effect of the intervention; (3) two-sample t-test was then used to test for statistical significance of the net effect or gain of the intervention at the end of the intervention and one year post programme.

## Definitions of Measures

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26. Throughout this report, the term intervention is used interchangeably with Project K. The term significant indicates that we are using a 5% level of statistical significance, that is, the evaluators are 95% certain that the findings are valid<sup>3</sup>. This certainty was achieved through statistical analysis of the data using SAS software.
27. The following definitions describe the measures used in this evaluation.

### ***Self-efficacy***

28. Project K aims to build self-efficacy by providing challenges that enable students to experience success through effort and perseverance. The concept of self-efficacy is a key factor in enhancing personal achievement and wellbeing. Perceived self-efficacy is defined as: people's beliefs about their capabilities to produce designated levels of performance that exercise influence over events that affect their lives. Self-

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<sup>3</sup> It should be noted that given the relatively large number of statistical tests to be performed for this evaluation, some tests might achieve statistical significance by chance.

efficacy beliefs influence how an adolescent thinks, feels, behaves, motivates him or herself, and therefore ultimately how successfully the young person will make the transition from adolescence to adulthood. A strong sense of efficacy enhances human accomplishment and personal well-being (Pajares; Ormarod 2006; Wikipedia).

29. For Project K, self-efficacy as defined by Bandura (1997) is “Belief in one’s capacity to organise and execute the courses of action required to manage prospective situations”. Four types of self-efficacy were measured.

Academic self-efficacy	A young person’s perceived ability to master academic activities
Social self-efficacy	A young person’s perceived ability to form and maintain peer relationships and social assertiveness in the classroom
Help-seeking self-efficacy	A young person’s perceived ability to ask for adult help, information and support.
Career decision self-efficacy	A young person’s perceived ability to make good career decisions and successfully execute career-related behaviours.

### ***Health and life style***

30. Key risk and protective behaviours that feature in adolescence are targeted by Project K. Based on the Ministry of Health’s recommendations (2003) and Moore’s study (2005), measures of health and lifestyle behaviour changes were categorised by a series of self reported behaviours/achievements in relation to:

- Eat breakfast
- Buy own food
- Have drivers’ licence
- Eat healthy food
- Eat unhealthy food
- Sexual behaviours
- Positive behaviours
- Risky behaviours
- Negative alcohol effect
- Risky driving
- Family monitoring
- Family cohesion.



### ***NCEA achievements***

31. NCEA achievements in total credits were used for assessment of the Project K effect at one year post programme.

### ***Goal achievements***

32. Goals were set by students themselves. They covered health and fitness, school, sport, hobbies, family, and career/work areas. Examples of goals included:

Health and fitness	I will walk to school at least twice a week for the first two terms
School	I will complete all my homework and hand it in on time for the first two terms of next year
Sport	I will try a new sport – soccer
Hobbies	I will make three garments before Graduation from Project K
Family	I will improve relationship with family
Career/work	I will explore the option of Tourism College
Other	I will reduce the amount I spend on my cell-phone to \$10.00 per month.

## **Limitations of the Methodology**

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33. There are several limitations in the evaluation that must be taken into account when considering the findings. First, the sample sizes of both control and intervention groups were relatively small. Some effects of Project K, such as measures of students' health and lifestyle, may have been undetectable due to the small sample sizes. The sample sizes became even smaller over time due to attrition which can bias assessment of change. Within each group, sub-groups of students based on ethnicity, gender and school decile are even smaller. This made it unrealistic to generalise all the findings of the evaluation to the whole youth population in New Zealand (NZ). Accordingly, analyses based on breakdowns of ethnic groups other than NZ Māori and European were not conducted.
34. Second, there were no baseline and end of programme data on NCEA achievements because students start working on NCEA at Year 11, one year after they start on Project K. In addition, career decision self-efficacy was only measured at one year post programme. Therefore, it was not possible to compare the net effects of Project K for these two measures. Third, there were no data on goal achievements for the control group students, therefore no comparisons were made between the two groups for this measure.
35. Lastly, the school deciles were not evenly represented, with under-representation of the high decile schools (the samples consisted of one decile 9 and two decile 6 schools). This may have caused bias towards low decile schools. A school's decile indicates the extent to which it draws its students from low socio-economic

communities. Decile 1 schools are the 10% of schools with the highest proportion of students from low socio-economic communities. Decile 10 schools are the 10% of schools with the lowest proportion of these students. However, students from a high decile school are not necessarily from a high socio-economic community as they may have travelled from other neighbourhoods to attend a particular school. Therefore, decile level may not accurately indicate socio-economic status of students in the Project K and control group samples.

## **Key Findings**

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### ***Review of Data Collection***

36. KPMG New Zealand reviewed the data management procedures to ensure the integrity of the evaluation services provided by FYD by assuring the Ministry that the data collected were complete and accurate. KPMG New Zealand found that, overall, FYD had a well established process with appropriate controls in place to ensure the integrity of the post and follow-up data collection process. KPMG New Zealand also found that the end of programme and one year post programme data were correctly collected.

### ***Characteristics of Young People in the Samples***

37. The control and Project K groups were of similar composition by gender with about half of the students being male and half female (Table 1). Around 60% of students in both groups came from low decile schools. Less than a third were Māori and about 40% of the control group and 50% in the Project K group were NZ European. The remainder were from Pacific Island, Asian or other backgrounds.

Table 1 Demographic characteristics of students in the samples

Demographic breakdowns	Control group		Intervention group		Subtotal	
	Number	Percentage*	Number	Percentage*	Number	Percentage*
<b>Ethnicity</b>						
NZ European	31	41	42	53	73	47
NZ Māori	20	27	22	28	42	27
Pacifica/others	24	32	15	19	39	25
Total	75	100	79	100	154	100
<b>Gender</b>						
Female	36	48	40	51	76	49
Male	39	52	39	49	78	51
Total	75	100	79	100	154	100
<b>School decile</b>						
Low decile	46	61	48	61	94	61
High decile	29	39	31	39	60	39
Total	75	100	79	100	154	100

\*Percentages are rounded.

### ***Academic Self-efficacy***

38. Table 2 presents a summary of mean academic self-efficacy scores at pre, post and one year post programme stages by student type in each group. Students who attended the Project K programme showed significantly greater improvement in their academic self-efficacy from the pre-programme stage to the end of programme than the control group. The gain was well maintained at one year post programme.
39. Female Project K students showed significantly greater improvement than their counterparts in the control group at the end of the intervention and one year post programme. In contrast, a significant gain was found for male project K students at end of the programme, but the gain was not maintained at one year post programme.
40. Students from high decile schools showed similar improvement in academic self-efficacy at one year post programme in both the intervention and control groups. However, there was greater improvement in academic self-efficacy at one year post programme for students from low decile schools in Project K group than in the control group ( $p=0.064$ ).
41. NZ European students participating in Project K showed significantly greater improvement in academic self-efficacy than those in the control group at the end of the intervention. However, the gain was not maintained at one year post programme. Māori students in Project K group showed significant improvement at one year post programme, whereas their counterparts in the control group showed a substantial decrease in academic self-efficacy ( $p=0.057$ ).

**Table 2. Changes in mean academic self-efficacy at the end of the intervention and one year post programme by student type in intervention and control group**

Student type	Mean ratings <sup>4</sup>			Differences	
	Pre	Post	1-yr post	Pre & Post	Pre & 1-yr post
<b>All students</b>					
Control	3.50 (n=75)	3.32 (n=75)	3.51 (n=55)	-0.19 (p=0.021)*	0.01 (p=0.926)
Intervention	3.33 (n=79)	3.62 (n=79)	3.55 (n=54)	0.29 (p=0.000)*	0.22 (p=0.007)*
Net effect of intervention at post & 1-yr post programme				0.47 (p=0.000)*	0.24 (p=0.035)*
<b>NZ European students<sup>‡</sup></b>					
Control	3.34 (n=31)	3.40 (n=31)	3.64 (n=31)	0.07 (p=0.569)	0.30 (p=0.005)*
Intervention	3.50 (n=42)	3.91 (n=42)	3.67 (n=24)	0.41 (p=0.000)*	0.18 (p=0.148)
Net effect of intervention at post & 1-yr post programme				0.35 (p=0.005)*	-0.18 (p=0.245)
<b>NZ Māori students</b>					
Control	2.96 (n=20)	2.74 (n=20)	2.59 (n=7)	-0.22 (p=0.165)	-0.37 (p=0.057)
Intervention	3.01 (n=22)	3.04 (n=22)	3.27 (n=17)	0.03 (p=0.780)	0.26 (p=0.000)*
Net effect of intervention at post & 1-yr post programme				0.26 (p=0.119)	0.41 (p=0.121)
<b>Female students</b>					
Control	3.55 (n=36)	3.55 (n=36)	3.77 (n=26)	0.00 (p=0.974)	0.22 (p=0.053)
Intervention	3.30 (n=40)	3.67 (n=40)	3.60 (n=31)	0.37 (p=0.000)*	0.30 (p=0.003)*
Net effect of intervention at post & 1-yr post programme				0.37 (p=0.002)*	0.27 (p=0.067)
<b>Male students</b>					
Control	3.46 (n=39)	3.11 (n=39)	3.28 (n=29)	-0.36 (p=0.002)*	-0.19 (p=0.109)
Intervention	3.37 (n=39)	3.57 (n=39)	3.48 (n=23)	0.20 (p=0.057)	0.11 (p=0.415)
Net effect of intervention at post & 1-yr post programme				0.55 (p=0.000)*	0.13 (p=0.428)
<b>Low-decile school students</b>					
Control	3.80 (n=46)	3.47 (n=46)	3.57 (n=31)	-0.33 (p=0.002)*	-0.23 (p=0.047)*
Intervention	3.42 (n=48)	3.51 (n=48)	3.43 (n=32)	0.09 (p=0.369)	0.01 (p=0.954)
Net effect of intervention at post & 1-yr post programme				0.42 (p=0.000)*	0.27 (p=0.064)
<b>High-decile school students</b>					
Control	3.07 (n=29)	3.10 (n=29)	3.43 (n=24)	0.04 (p=0.768)	0.37 (p=0.002)*
Intervention	3.20 (n=31)	3.79 (n=31)	3.73 (n=22)	0.60 (p=0.000)*	0.53 (p=0.000)*
Net effect of intervention at post & 1-yr post programme				0.56 (p=0.000)*	0.19 (p=0.241)

<sup>‡</sup> Sample sizes were too small to allow analyses based on breakdowns of other ethnic groups.

\* Statistically significant at 0.05 level.

<sup>4</sup> Ratings are based on a scale of 1 to 5, with 1 being the lowest rating and 5 the highest.

### ***Social Self-efficacy***

42. Table 3 reports changes in mean social self-efficacy at pre, post, and one year post programme.
43. Although both intervention and control groups significantly improved social self-efficacy from pre to the end of the intervention and one year post programme, the Project K group showed significantly greater improvement than the control group ( $p=0.000$ ).
44. NZ European Project K students showed significantly greater improvement in social self-efficacy than did their counterparts in the control group at post ( $p=0.001$ ) and one year post programme ( $p=0.009$ ).
45. Both intervention and control group Māori youth showed significant improvement in social self-efficacy at the one year post programme with no significant difference between the two groups.
46. Overall, both male and female benefited significantly from the Project K intervention in the improvement of their social self-efficacy at the end of the intervention and one year post programme. However, male students benefited more than female students.
47. When comparing females between both groups on social self-efficacy, those in Project K did significantly better than their counterparts in the control group. Males in Project K showed significant improvement whereas those in the control group showed no improvement.
48. Project K students from both high and low decile schools showed significantly greater improvement in social self-efficacy between pre and one year post programme than those in the control group ( $p=0.001$ ).

**Table 3. Changes in mean social self-efficacy at the end of the intervention and one year post programme by student type in intervention and control group**

Student type	Mean ratings <sup>5</sup>			Differences	
	Pre	Post	1-yr post	Pre & Post	Pre & 1-yr post
<b>All students</b>					
Control	3.93 (n=75)	4.10 (n=75)	4.20 (n=70)	0.17 (p=0.044)*	0.27 (p=0.000)*
Intervention	3.93 (n=79)	4.41 (n=79)	4.55 (n=74)	0.47 (p=0.000)*	0.62 (p=0.000)*
Net effect of intervention at post & 1-yr post programme				0.31 (p=0.000)*	0.42 (p=0.000)*
<b>NZ European students<sup>‡</sup></b>					
Control	3.48 (n=31)	3.86 (n=31)	4.09 (n=35)	0.38 (p=0.002)*	0.61 (p=0.000)*
Intervention	3.78 (n=42)	4.55 (n=42)	4.47 (n=40)	0.77 (p=0.000)*	0.70 (p=0.000)*
Net effect of intervention at post & 1-yr post programme				0.39 (p=0.001)*	0.33 (p=0.009)*
<b>NZ Māori students</b>					
Control	3.75 (n=20)	4.03 (n=20)	4.20 (n=16)	0.28 (p=0.100)	0.45 (p=0.006)*
Intervention	4.02 (n=22)	4.27 (n=22)	4.53 (n=21)	0.25 (p=0.058)	0.61 (p=0.000)*
Net effect of intervention at post & 1-yr post programme				-0.03 (p=0.856)	0.06 (p=0.730)
<b>Female students</b>					
Control	3.93 (n=36)	4.11 (n=36)	4.38 (n=37)	0.18 (p=0.131)	0.45 (p=0.000)*
Intervention	3.81 (n=40)	4.38 (n=40)	4.55 (n=37)	0.57 (p=0.000)*	0.73 (p=0.000)*
Net effect of intervention at post & 1-yr post programme				0.39 (p=0.001)*	0.28 (p=0.019)
<b>Male students</b>					
Control	3.93 (n=39)	4.09 (n=39)	4.01 (n=33)	0.16 (p=0.180)	0.08 (p=0.449)
Intervention	4.06 (n=39)	4.44 (n=39)	4.55 (n=37)	0.38 (p=0.000)*	0.49 (p=0.000)*
Net effect of intervention at post & 1-yr post programme				0.22 (p=0.047)*	0.57 (p=0.000)*
<b>Low-decile school students</b>					
Control	4.18 (n=46)	4.17 (n=46)	4.31 (n=42)	-0.01 (p=0.957)	0.13 (p=0.180)
Intervention	4.09 (n=48)	4.35 (n=48)	4.55 (n=43)	0.27 (p=0.004)*	0.46 (p=0.000)*
Net effect of intervention at post & 1-yr post programme				0.27 (p=0.008)*	0.41 (p=0.000)*
<b>High-decile school students</b>					
Control	3.56 (n=29)	3.99 (n=29)	4.04 (n=28)	0.43 (p=0.001)*	0.48 (p=0.000)*
Intervention	3.70 (n=31)	4.49 (n=31)	4.55 (n=31)	0.79 (p=0.000)*	0.85 (p=0.000)*
Net effect of intervention at post & 1-yr post programme				0.37 (p=0.003)*	0.44 (p=0.001)*

<sup>‡</sup> Sample sizes were too small to allow analyses based on breakdowns of other ethnic groups.

\* Statistically significant at 0.05 level.

<sup>5</sup> Ratings are based on a scale of 1 to 5, with 1 being the lowest rating and 5 the highest.

### ***Help Seeking Self-efficacy***

49. Table 4 shows changes in mean help-seeking self-efficacy at the end of the intervention and one year post programme by student type in Project K and the control groups. Project K group generally showed significantly greater improvement in help-seeking self-efficacy than the control group for all students at the end of the programme, but the gain was not maintained at one year post programme. The net effect of Project K intervention was significant at the end of the intervention ( $p=0.003$ ), but not significant at one year post programme ( $p=0.157$ ).
50. There were no differences between Project K and the control group in help-seeking self-efficacy based on ethnicity at one year post programme. Māori students in the Project K group showed significantly greater improvement in help-seeking self-efficacy than their counterparts in the control group at the end of the intervention ( $p=0.027$ ), but the gain was not maintained at one year post programme ( $p=0.392$ ).
51. For females there was also no significant difference between gains made by the intervention and control groups. Both groups showed significant gains at the end of the intervention and one year post programme.
52. For males, there was significant improvement for the Project K group in the period between pre-programme and immediately post programme. However, the gains were not maintained at one year post programme. No improvement was found at the end of the intervention and one year post programme for the control group.
53. Results showed that students from low decile schools in Project K benefited more in help-seeking self-efficacy than did those from high decile schools. The Project K group from low decile schools showed greater improvement in help seeking self-efficacy than did the control group at the end of the intervention ( $p=0.018$ ) and the gain of Project K intervention approached significance at one year post programme ( $p=0.078$ ). There was significantly greater improvement for Project K students from high decile schools than their counterparts in the control group at the end of the intervention ( $p=0.050$ ), but the gain was not maintained at one year post programme ( $p=0.869$ ).

**Table 4. Changes in mean help-seeking self-efficacy at the end of the intervention and one year post programme by student type in intervention and control group**

Student type	Mean ratings <sup>6</sup>			Differences	
	Pre	Post	1-yr post	Pre & Post	Pre & 1-yr post
<b>All students</b>					
Control	3.49 (n=75)	3.61 (n=75)	3.92 (n=70)	0.12 (p=0.324)	0.43 (p=0.000)*
Intervention	3.65 (n=79)	4.15 (n=79)	4.16 (n=74)	0.51 (p=0.000)*	0.52 (p=0.000)*
Net effect of intervention at post & 1-yr post programme				0.39 (p=0.003)*	0.22 (p=0.157)
<b>NZ European students<sup>‡</sup></b>					
Control	3.16 (n=31)	3.61 (n=31)	3.97 (n=35)	0.44 (p=0.006)*	0.81 (p=0.000)*
Intervention	3.70 (n=42)	4.42 (n=42)	4.27 (n=40)	0.73 (p=0.000)*	0.57 (p=0.000)*
Net effect of intervention at post & 1-yr post programme				0.28 (p=0.145)	0.04 (p=0.858)
<b>NZ Māori students</b>					
Control	3.15 (n=20)	3.11 (n=20)	3.80 (n=16)	-0.04 (p=0.863)	0.65 (p=0.010)*
Intervention	3.38 (n=22)	3.88 (n=22)	3.88 (n=21)	0.50 (p=0.004)*	0.50 (p=0.006)*
Net effect of intervention at post & 1-yr post programme				0.54 (p=0.027)*	-0.26 (p=0.392)
<b>Female students</b>					
Control	3.40 (n=36)	3.77 (n=36)	4.10 (n=37)	0.36 (p=0.021)*	0.69 (p=0.000)*
Intervention	3.49 (n=40)	4.06 (n=40)	4.28 (n=37)	0.58 (p=0.000)*	0.79 (p=0.000)*
Net effect of intervention at post & 1-yr post programme				0.22 (p=0.241)	0.34 (p=0.100)
<b>Male students</b>					
Control	3.57 (n=39)	3.47 (n=39)	3.75 (n=33)	-0.11 (p=0.535)	0.18 (p=0.284)
Intervention	3.81 (n=39)	4.24 (n=39)	4.03 (n=37)	0.44 (p=0.002)*	0.22 (p=0.167)
Net effect of intervention at post & 1-yr post programme				0.54 (p=0.004)*	0.12 (p=0.601)
<b>Low-decile school students</b>					
Control	3.86 (n=46)	3.71 (n=46)	4.04 (n=42)	-0.15 (p=0.331)	0.19 (p=0.221)
Intervention	3.79 (n=48)	4.05 (n=48)	4.15 (n=43)	0.26 (p=0.043)*	0.36 (p=0.011)*
Net effect of intervention at post & 1-yr post programme				0.41 (p=0.018)*	0.35 (p=0.078)
<b>High-decile school students</b>					
Control	2.96 (n=29)	3.46 (n=29)	3.76 (n=28)	0.50 (p=0.004)*	0.80 (p=0.000)*
Intervention	3.42 (n=31)	4.31 (n=31)	4.18 (n=31)	0.89 (p=0.000)*	0.76 (p=0.000)*
Net effect of intervention at post & 1-yr post programme				0.39 (p=0.050)*	0.04 (p=0.869)

<sup>‡</sup> Sample sizes were too small to allow analyses based on breakdowns of other ethnic groups.

\* Significant at 0.05 level.

<sup>6</sup> Ratings are based on a scale of 1 to 5, with 1 being the lowest rating and 5 the highest.



## Career Decision Self-efficacy

54. This measure was assessed for Project K and control group students only at the one year post programme stage.
55. Table 5 shows the comparisons between Project K and the control groups in career decision self-efficacy at one year post programme. The Project K group showed slightly higher career decision self-efficacy than the control group ( $p=0.071$ ).
56. The Project K group showed significantly greater career decision self-efficacy than the control group for both NZ European ( $p=0.001$ ) and Māori students ( $p=0.035$ ).
57. Project K students from high decile schools showed significantly greater career decision self-efficacy than their control group counterparts. Low decile school students showed no difference in self-efficacy between the Project K and Control groups.

**Table 5. Comparison of intervention and control groups in mean career decision self-efficacy ratings<sup>7</sup> at one year post programme**

Student type	Control	Intervention	Difference	p value
<b>All students</b>	3.39 (n=70)	3.49 (n=74)	0.10	0.071
<b>Ethnicity of students<sup>‡</sup></b>				
NZ European	3.41 (n=35)	3.66 (n=40)	0.25	0.001*
NZ Māori	3.20 (n=16)	3.42 (n=20)	0.22	0.035*
<b>Gender of students</b>				
Female students	3.41 (n=37)	3.49 (n=37)	0.08	0.313
Male students	3.37 (n=33)	3.50 (n=37)	0.13	0.121
<b>Decile type of school</b>				
Low decile schools	3.44 (n=42)	3.43 (n=43)	-0.01	0.879
High decile schools	3.32 (n=28)	3.57 (n=31)	0.26	0.002*
<b>School status</b>				
At school students	3.38 (n=55)	3.44 (n=54)	0.06	0.324
School leavers	3.43 (n=15)	3.67 (n=20)	0.23	0.076

<sup>‡</sup> Sample sizes were too small to allow analyses based on breakdowns of other ethnic groups.

\* Statistically significant at 0.05 level.

<sup>7</sup> Ratings are based on a scale of 1 to 5, with 1 being the lowest rating and 5 the highest.

## Health and Lifestyle

58. Overall, there were no statistically significant differences between groups on key measures of health and lifestyle. However, risky behaviour such as alcohol and drug abuse and unsafe sexual activity significantly increased over time for both groups.

## NCEA Results

59. This was only measured at one year post programme. Table 6 presents mean number of credits at one year post programme for all students and by ethnicity, gender and school decile.
60. The intervention group achieved slightly more total credits than the control group but the difference was not significant ( $p=0.111$ ).
61. Māori students in the intervention group showed significantly higher average total number of credits earned than Māori students in the control group. There were no statistically significant differences between groups for NZ European students.
62. Low decile school students in Project K showed a higher average total number of credits than the low decile control group students ( $p=0.075$ ).

**Table 6. Comparison of intervention and control groups in total number of credits at one-year post programme stage**

Other variable	Control	Intervention	Difference	p value
<b>All students</b>	70.9 (n=72)	80.9 (n=79)	10.1	0.111
<b>Ethnicity of students<sup>‡</sup></b>				
NZ European	90.8 (n=31)	81.9 (n=42)	8.9	0.386
NZ Māori	55.0 (n=17)	84.2 (n=22)	29.2	0.004*
<b>Gender of students</b>				
Female students	74.8 (n=34)	82.6 (n=40)	7.8	0.415
Male students	67.4 (n=38)	79.2 (n=39)	11.8	0.157
<b>Decile type of school</b>				
Low decile schools	68.9 (n=43)	82.4 (n=48)	13.4	0.075
High decile schools	73.8 (n=29)	78.7 (n=31)	4.9	0.660

<sup>‡</sup> Sample sizes were too small to allow analyses based on breakdowns of other ethnic groups.

\* Statistically significant at 0.05 level.

## Goals Achievement

63. This section reports goals that were set and goals that were achieved or attempted. Information was collected immediately after the completion of Project K intervention. This outcome was not measured for the control group.
64. Since 16.4% of the goals set were related to career or work and participants were still attending school when goal achievements were assessed, it was decided that a better measure of the intervention effect than merely goal achievement, was to account for both achieved and attempted goals (Figure 1).
65. The number of goals achieved or attempted for the intervention group was similar to the number of goals set at the beginning of the programme. The t-test showed no difference between the two means with a total sample size of 81 and  $p=0.378$ .

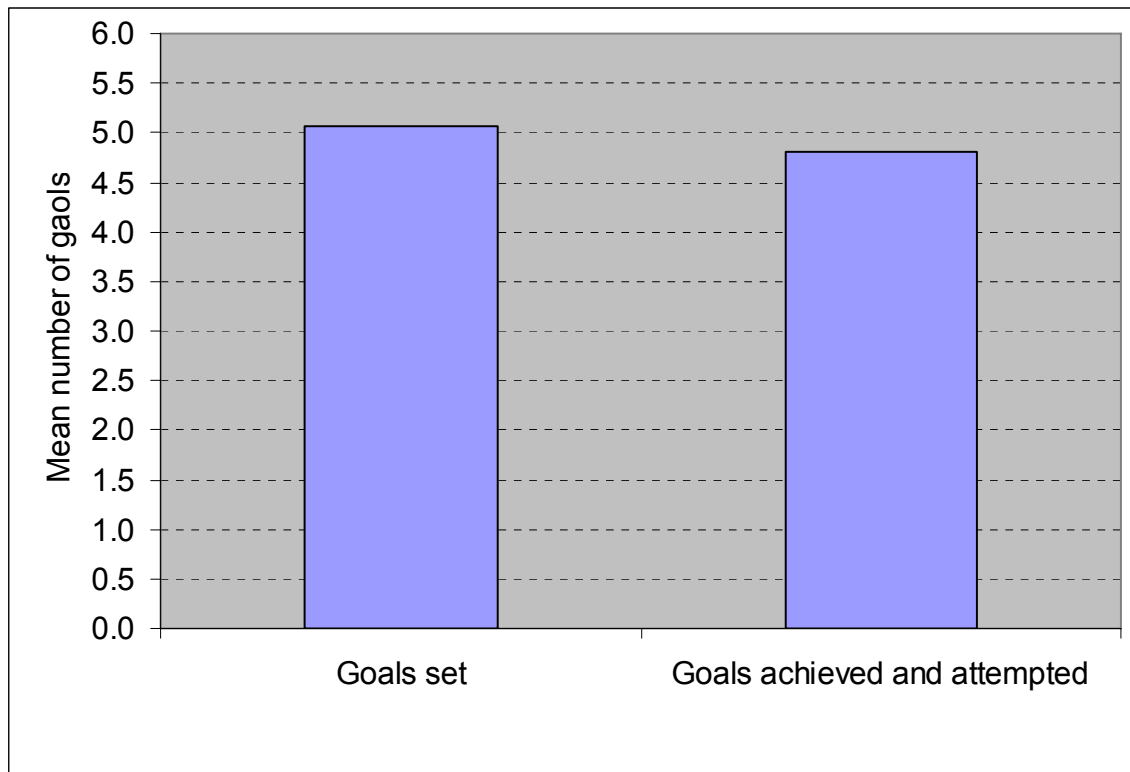


Figure 1. Goals achieved and attempted for Project K students at end of programme

## Overall Self-efficacy for Specific Groups

### Findings for all students

66. In general, students in Project K showed significantly greater improvement in different subscales of self-efficacy than their counterparts in the control group (Figure 2).
67. In academic self-efficacy, Project K students showed significant improvement at the end of the programme and the gain was well maintained at one year post programme. In contrast, the control group students showed no improvement at one year post programme.
68. Students from both groups showed significant improvement in social self-efficacy at the end of the intervention and one year post programme stages, but there was significantly greater gain for Project K students than for the control group.
69. There was significant improvement in help-seeking self-efficacy at one year post programme in both groups, but the gain in the Project K group slightly exceeded that in the control group.
70. Project K students showed significantly higher career decision self-efficacy than their counterparts in the control group at one year post programme. However, it was not clear if this difference was purely due to the project K intervention due to lack of baseline data at pre-programme stage.

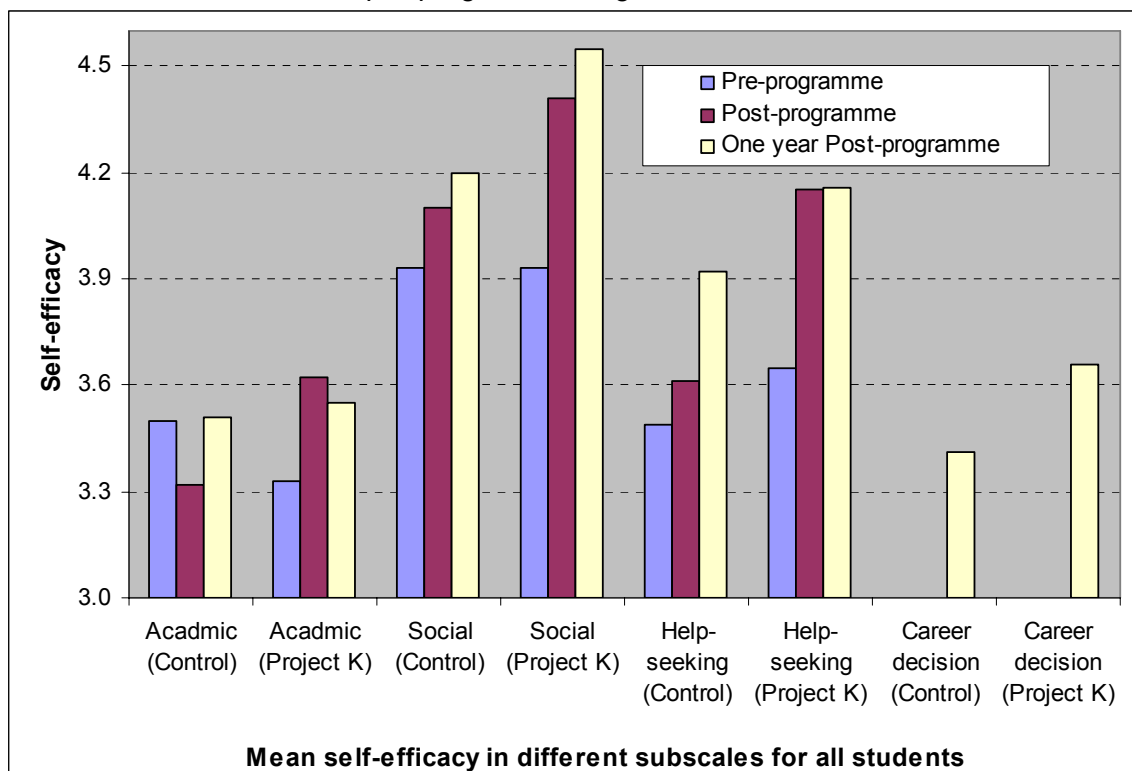


Figure 2. Changes for all students in Project K and Control groups

## Findings by Gender

71. Male students in Project K did better than females although both males and females made gains. However, in academic self-efficacy, females (n=40) in Project K did better than males (n=39) but the difference was not significant.

### Females

72. Figure 3 shows that female students in Project K did significantly better than did females in the control group in social self-efficacy. The Project K females showed slightly greater improvement than control group females in help-seeking self-efficacy although the difference was not significant. There were no significant differences between the control and Project K female students in career decision ability.

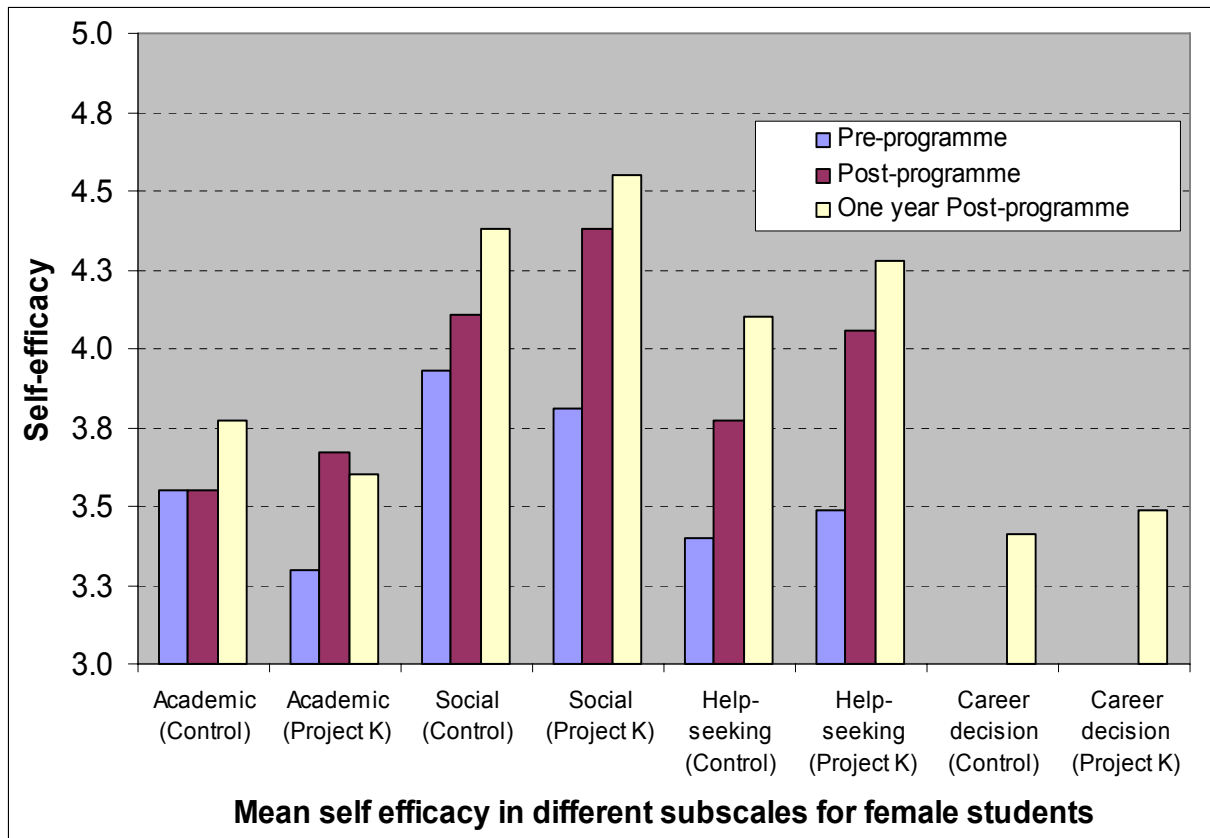


Figure 3. Changes for female students in Project K and Control groups

## Males

73. Figure 4 shows that male students in Project K increased their academic self-efficacy at one year post programme while male students in the control group showed a significant decrease in academic self-efficacy at one year post programme. In addition, males in Project K showed significant improvements in social self-efficacy, whereas those in the control group showed no improvement.
74. There was significant improvement for males in the Project K group in help-seeking self-efficacy between pre-programme and immediate post intervention. However, the gains dropped slightly at one year post programme. There was some improvement in help-seeking self-efficacy at one year post programme for the control group but the increase was not significant ( $p=0.284$ ).

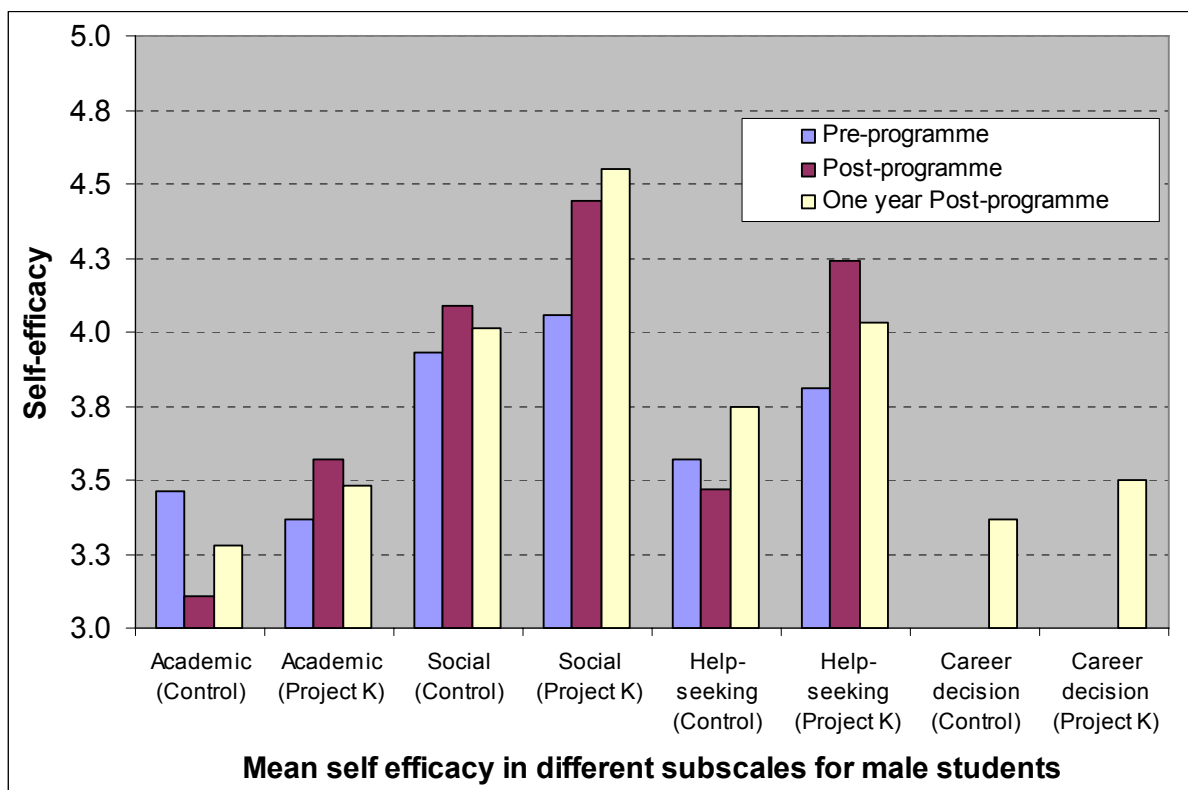


Figure 4. Changes for male students in Project K and Control groups

## Changes for Māori students

75. Figure 5 demonstrates results for Māori students. Māori students in Project K (n=22) showed significant improvement in academic self-efficacy at one year post programme, whereas their counterparts in the control group (n=20) showed a significant decrease.
76. Māori in both the Project K and the control group showed significant improvement in social self-efficacy at one year post programme; however, there was no significant difference between groups in the gains achieved. Similarly, there was no difference between Māori students in Project K and the control group in the improvement of help-seeking self-efficacy at one year post programme. However, Māori in Project K showed significantly higher career decision self-efficacy than the control group (Figure 5). Māori students in the intervention group showed significantly higher average total number of NCEA credits earned than those in the control group ( $p=0.004$ ) (Table 6).

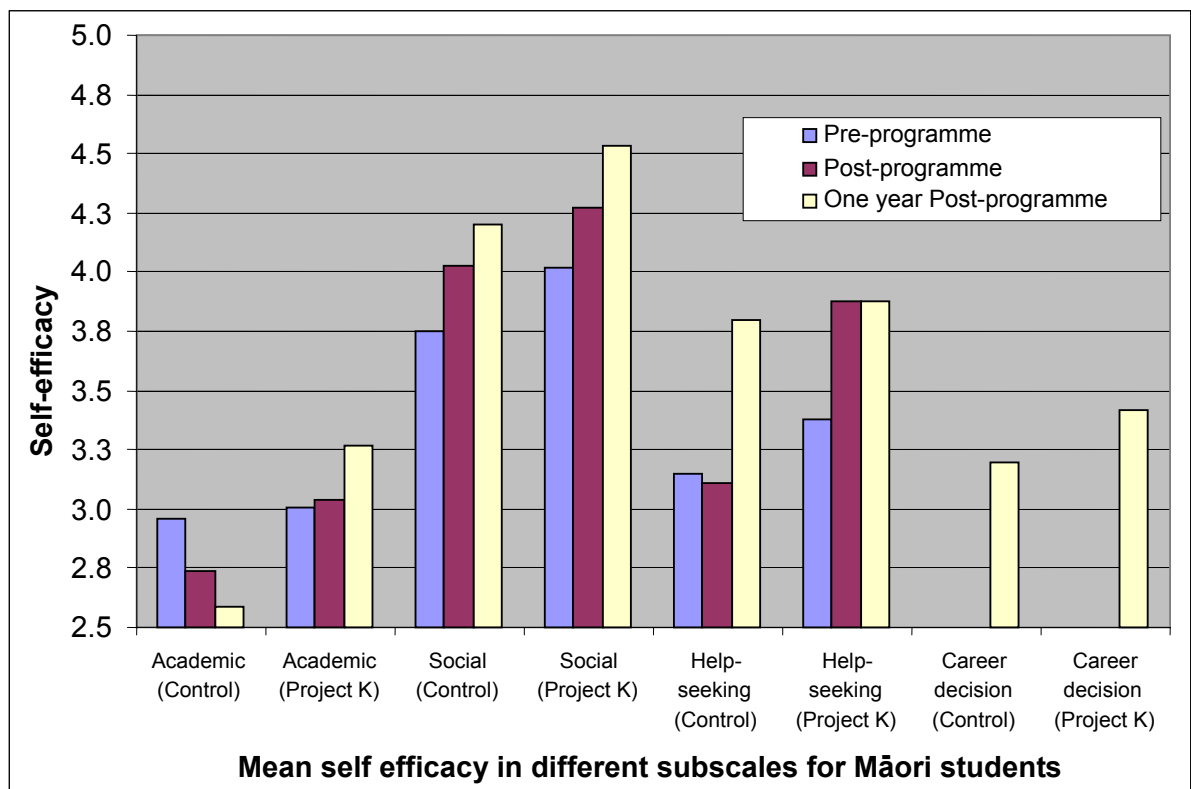


Figure 5. Changes for Māori students in Project K and Control groups

## Discussion

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77. Evaluation results demonstrate that the Project K intervention improved self-efficacy for all participating students and that the effects of the intervention were well maintained at one year post programme. Māori, male and low decile school students benefited the most. Māori students who participated in Project K showed significantly higher average total NCEA credits than their counterparts in the control group.
78. Research in the literature indicates a strong positive correlation between academic self-efficacy and academic performance (motivation, learning and achievement) (Bandura et al., 1999; D'Amico & Cardaci, 2003; Schunk & Pajares, 2002). The current evaluation findings support the research. For example, while the control group showed greater academic self-efficacy than the Project K group prior to the intervention, this relationship reversed at one year post programme, with the Project K group showing greater academic self-efficacy than the control group.
79. Project K did not appear to have a major impact on students' health and lifestyle measures. Moreover, risky behaviours such as alcohol and drug abuse and unsafe sexual activity increased for both Project K and the control group students. Research has shown that participation in risky behaviours increases from early to late adolescence (Duncan et al., 2001), with older students more likely to engage in multiple risk behaviours (Lindberg et al., 2000). In addition, small sample sizes for the current programme may have caused bias in the measurements.
80. To avoid small sample size problems for subgroups such as females and ethnic groups, future evaluation of the programme would require substantially larger numbers of students. This would enable conclusions to be generalised more reliably and allow assessments of the impact on these sub groups. FYD has collected another larger data set from both Project K and control group students and will report further findings in 2008.
81. In order to understand with greater certainty which population groups benefit the most from Project K, it may be useful to know more about the characteristics of each student in the study, such as their social economic background and specific risk factors. This could be achieved through extending the information gathered from parents/caregivers and students.
82. Project K believes that the long term benefits include a healthier youth population who:
  - Are better educated
  - Have enhanced employment prospects
  - Have greater self-efficacy and focus
  - Are more balanced
  - Are empowered and motivated
  - Will contribute positively to society



83. Understanding the programme's impact on these aspects of life for participants would require a longer period of data collection to follow students beyond one year post programme. It would be of great interest to understand firstly how the programme effects are maintained and secondly how they impact on students' longer-term economic and social wellbeing. FYD has planned a three-year post programme data collection, a potential source of information for assessment of longer-term benefits of the programme.
84. The design of the present evaluation allows data to be collected from both the intervention and control groups at pre, post and one year post programme. This enables the evaluators to assess the net effect due to programme intervention and sets up a good practice model/benchmark for the evaluation of future similar programmes.
85. Future research and evaluation may need to focus the cost effectiveness of the Project K programme and its three key components (wilderness adventure, community challenge, and mentoring) in comparison to other similar programmes. It would be useful to understand which of the three components is the most important/effective in terms of overall outcomes for participating students.

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