



## ABSTRACT

The present study used anonymous self-report questionnaires to investigate ethnic group differences in causal attributions for academic outcomes, achievement goal orientations, academic self-efficacy and academic achievement among undergraduate university students (N = 241). Several statistically significant differences were found in academic motivation and achievement based on participants' ethnicity. Pasifika students reported the lowest levels of academic achievement and the highest levels of external locus of control (LOC). Correlational analyses revealed a significant negative association between achievement and external locus of control. In contrast, internal locus of control as well as mastery goal orientation (MGO) and self-efficacy were positively associated with academic achievement.

## INTRODUCTION

Bishop et al. (2009) and a report by May et al. (2012) found that the academic achievement levels of Maori and Pasifika students is low compared to New Zealand European and Asian students. Programmes addressing underachievement have focused on altering aspects that are external to students, such as teaching methods. However, they do not take into account aspects that are considered internal to students, such as academic motivation, which has been shown to have a huge impact on academic achievement (McClure et al., 2011).

## RESEARCH QUESTIONS

1. Are there any differences in causal attributions for academic outcomes between university students of different ethnic groups? What is the relationship between students' causal attributions and their academic achievement?
2. Are there any differences in academic goal orientations between university students of different ethnic groups? What is the relationship between students' goal orientations and academic achievement?
3. Are there any differences in academic self-efficacy between university students of different ethnic groups? What is the relationship between students' academic self-efficacy and their academic achievement?
4. What are the relationships between students' causal attributions for their academic outcomes, goal orientations, and academic self-efficacy, and how do these impact academic achievement?

## METHOD

**Participants:** Table 1 shows a total of 241 students across three campuses participated in the study.

	Maori	European	Pasifika	Asian (Domestic)	Asian (International)	Chi-square
City	7	51	17	30	22	127
Epsom	35	44	9	4	0	92
MIT	3	14	4	1	0	22
Total	45	109	30	35	22	241

Note.  $\chi^2(8, N=241) = 69.33, p < .001$ . Given marginal frequencies, cells with boldfaced/italicized frequencies are significantly greater/less than expected (adjusted standardized residual score greater than 2.0/less than -2.0).

**Measures:** A 7-point Likert scale questionnaire consisting:

- An adapted version of Trice's (1985) survey measuring internal LOC ( $\alpha = .63$ ) and external LOC ( $\alpha = .67$ )
- An adapted version of PALS (Midgley et al., 2000) measuring mastery orientation ( $\alpha = .84$ ), performance orientation ( $\alpha = .93$ ), self-efficacy ( $\alpha = .85$ )
- Students' self-reported grades

**Analyses:** Analyses of variance, correlational analyses, multiple regression

## RESULTS

Table 2 shows Pasifika students reported the lowest level of academic achievement and the highest external locus of control. With respect to achievement goals, Asian domestic students reported the lowest level of mastery goal orientation while Asian international students reported the highest level of performance goal orientation (PGO). Maori students reported the highest level of self-efficacy and Asian domestic students the lowest.

Variable	Euro	Pasifika	Maori	As-Dom	As-Int	Total	F-value
Typical Grades	4.64 (1.08) <sup>a</sup>	3.47 (1.11) <sup>b</sup>	4.51 (1.25) <sup>a</sup>	4.17 (1.10) <sup>ab</sup>	4.73 (0.77) <sup>a</sup>	4.41 (1.16)	7.71***
MGO	5.70 (0.79) <sup>ab</sup>	5.96 (0.80) <sup>ab</sup>	6.02 (0.91) <sup>a</sup>	5.51 (0.72) <sup>b</sup>	5.77 (0.85) <sup>ab</sup>	5.77 (0.82)	2.53*
PGO	2.84 (1.13) <sup>ab</sup>	2.53 (1.23) <sup>b</sup>	2.60 (1.78) <sup>b</sup>	2.79 (1.19) <sup>ab</sup>	3.60 (1.31) <sup>a</sup>	2.82 (1.33)	2.64*
Internal LOC	5.45 (0.73) <sup>ab</sup>	5.31 (0.85) <sup>ab</sup>	5.69 (0.72) <sup>a</sup>	5.19 (0.62) <sup>b</sup>	5.19 (0.98) <sup>b</sup>	5.41 (0.77)	2.98*
External LOC	4.03 (1.06) <sup>ab</sup>	4.46 (0.98) <sup>ab</sup>	3.77 (1.45) <sup>b</sup>	4.51 (0.68) <sup>a</sup>	4.05 (1.09) <sup>ab</sup>	4.11 (1.12)	3.16*
Self-efficacy	5.71 (0.80) <sup>ab</sup>	5.75 (0.87) <sup>ab</sup>	6.07 (0.83) <sup>a</sup>	5.29 (0.76) <sup>b</sup>	5.36 (1.00) <sup>b</sup>	5.69 (0.86)	5.33***

Note. Posthoc analyses using Tukey's HSD indicated that groups with different superscripts were significantly different from one another ( $p < .05$ ). \* $p < .05$ . \*\* $p < .001$ . MGO = mastery goal orientation; PGO = performance goal orientation; LOC = locus of control; Euro = European; As-Dom = Asian Domestic; As-Int = Asian International.

Variable	1	2	3	4	5
1 Typical Grades	--				
2 MGO	.14*	--			
3 PGO	.04	.03	--		
4 Internal LOC	.30**	.49**	.07	--	
5 External LOC	-.36**	-.08	.21**	-.28	--
6 Self-efficacy	.25**	.49**	-.09	.63**	-.28**

Note. MGO = mastery goal orientation; PGO = performance goal orientation; LOC = locus of control. \* $p < .05$ . \*\* $p < .01$ .

Table 3 shows mastery goal orientation, internal locus of control and academic self-efficacy were positively correlated with typical grades; external locus of control was negatively correlated with typical grades. No statistically significant differences were found between performance goal orientation and typical grades.

Table 4 shows students' ethnicity and causal attributions

	B	SE	B	95% CI
Constant	3.54	0.68		[2.21-4.88]
Ethnicity (1=Pasifika)	-0.94	0.20	-0.27***	[-1.34-0.54]
MGO	0.06	0.10	0.04	[-0.13-0.25]
PGO	0.06	0.05	0.07	[-0.04-0.16]
Internal LOC	0.19	0.12	0.13	[-0.04-0.43]
External LOC	-0.29	0.06	-0.28***	[-0.42-0.17]
Self-Efficacy	0.11	0.11	0.08	[-0.09-0.32]
R <sup>2</sup>			0.25	
F			11.43***	

Note. N=241. MGO = mastery goal orientation; PGO = performance goal orientation; LOC = locus of control. CI = confidence interval. \*\*\* $p < .001$

significantly predicted typical grades. Being Pasifika and external locus of control negatively predicted typical grades. These two factors and the overall model were highly significant ( $p < .001$ ) and explained 25% of the variance in students' self-reported grades.

## CONCLUSIONS AND IMPLICATIONS

- Although relatively high in their desire to develop competence (i.e., mastery goal orientation) and feeling able to do so (i.e., self-efficacy), Pasifika students reported the lowest level of academic achievement (i.e., typical grades). The latter finding may be a result of the fact that Pasifika students were the most likely to attribute academic outcomes to factors beyond their control (i.e., external locus of control).
- In contrast, Maori students reported the lowest level of external LOC and earning grades equivalent to those of European and Asian international students. These findings were not expected and run counter to previous research (e.g., Bishop et al., 2009).
- Also unexpected were differences between domestic and international Asian students. Specifically, although the differences did not reach statistical significance, the Asian domestic students reported earning lower grades than their international counterparts. In addition to reporting greater achievement, the latter also reported a greater emphasis on demonstrating competence (i.e., MGO) as well as a lower tendency to attribute academic outcomes externally. These differences warrant further investigation with larger and more representative samples.
- In light of results from the regression analyses, attribution retraining may be a worthwhile intervention for all students but especially so for Pasifika students who reported the highest levels of external locus of control.

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