

ACADEMIC PERFORMANCE AND THE PERCEPTION ABOUT THE EDUCATIONAL ENVIRONMENT: A COMPARISON BETWEEN ETHNIC MINORITY AND MAJORITY STUDENTS FOLLOWING THREE DEGREE PROGRAMS

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ABSTRACT

Beneficial effects of ethnic and social diversity in a higher educational institute can be realized only if different ethnic groups effectively integrate into the educational and social environment in which they live and study. Though located in an area of ethnic majority, the Faculty of Agriculture, University of Ruhuna (FAUR) has become a tertiary education institute with a reasonable proportion of other ethnic communities since 2012. Students of minority ethnic communities may perceive the new learning environment unwelcoming which may in turn adversely affect their academic performance. Objective of the present study was to compare the academic performance and perception of educational environment between ethnic minority (Tamil and Muslim) and majority (Sinhala) students, following three degree programs in FAUR. Perception of randomly selected ethnic minority (n=53) and majority (n=83) students were determined using a modified version of DUNDEE DREEM questionnaire. Students' agreement on each of the 50 statements in five domains; students' perception of learning (SPL), teachers (SPT), academic self-perception (SAP), atmosphere (SPA) and social self-perception (SSP) were recorded on a five point Likert scale. Semester grade point averages (SGPA) of 320 Sinhala and 53 Tamil and Muslim students, representing three Degree programs were used for the academic performance analysis. SGPA of the ethnic minority (Tamil and Muslim) students (2.267±0.08) was significantly lower than that of Sinhala students (2.747±0.03). Ethnic minority students recorded lower SGPA values in all three degree programs, both academic years and semesters. The percentage of students having higher academic grades was significantly higher among ethnic majority students. There was a higher rate of examination avoidance either by not applying or by submitting medical certificates, among minority students. Ethnic minority students held significantly higher total perception score and perception scores with respect to SPL, SAP and SPA. It was concluded that though ethnic minority students held better perception towards the educational environment of the FAUR, their academic performance are lower than ethnic majority students. Students perceptions towards the educational environment and their academic performance were found to be two different constructs each determined by different factors.

Key words: Academic performance, DUNDEE, Educational environment, Minority, Perception

INTRODUCTION

An educational environment with ethnic and cultural diversity provides an ideal background for long term social harmony in the country. However, beneficial effects of such a situation can be realized only if different ethnic groups effectively integrate into the educational and social environment in which they live and study. Students of minority ethnic communities, particularly those with poor communication skills may face difficulties in adjusting to the new learning environment which may in turn adversely affect their aca-

ademic performance. A study with minority students in USA, Tinto (1993) has identified that academic and social integration as the two most influential factors that affect the university dropout rate. Meanwhile, Rienties *et al.* (2012) have found that the relationship between academic integration and performance was weak and multi-facet. Zea *et al.* (1997) have found that when students perceived the environment as unwelcoming because of race, ethnicity, or religion, their desire to continue attending college diminished.

The extent to which students adapt to the educational way-of-life has been defined as academic integration (Tinto, 1975). A good aca-

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demographic integration is essential for a university student to cope up with teaching-learning environment of the university which is quite different from what they experienced in schools. Difficulties in poor academic integration reduce the opportunities (time, drive, enthusiasm) for social integration as well. Dorsey and Jackson (1995) have shown that poor academic integration leads students to choose to associate primarily with students from a similar ethnic or racial background for security and racial identity. Therefore, if different ethnic communities are not effectively integrated academically and socially, the cumulative effect may be a frustrated mind set in minority students who in turn bring a bad message back to their community. Therefore, it is evident that enrolment of students of minority ethnic communities to regional universities may be counterproductive if proper mechanisms are not adopted to integrate those students academically and socially to the environment where they live and study. Being geographically located in Buddhist-Sinhala majority area, FAUR did not experience a much ethnic and cultural diversity among its student community, until recently. However, with the introduction of two new degree programmes in 2012 and the additional intakes resulting from the A/L Z score problem, the FAUR has now become a tertiary education institute with a reasonable proportion of other ethnic communities. At present, there are 71 Tamil and Muslim students among the 500 of total student population. A number of measures have been taken to make a better academic and social life for minority students at FAUR. However, no attempt has been made to evaluate how effectively the non-Sinhala students have academically integrated with the teaching-learning environment. Such an analysis is critically important to address the problematic academic issues faced by minority communities, which in turn improve their academic and social integration. Objective of the present study was to compare the academic performance and perception of educational environment between ethnic minority (Tamil and Mus-

lim) and majority (Sinhala) students following three Degree programs in FAUR.

MATERIALS AND METHODS

Semester grade point averages (SGPA) of 320 Sinhala and 53 Tamil and Muslim students were used for the academic performance analysis. Students represented three Degree programs namely (BSc. Agricultural Resource Management and Technology, BSc. Agribusiness Management and BSc. Green Technology), two academic years (first and second year) and two semester levels (first and second). Randomly selected first and second year Sinhala students (n=83) and Muslim (n=23) and Tamil students (n=30) were interviewed using a structured-type questionnaire. The questionnaire was a modified version of the DUNDEE DREEM inventory (Roff *et al.*, 1997). The number of statements considered under the domain students' perception of learning (SPL), teachers (SPT), academic self-perception (SAP), atmosphere (SPA) and social perception were 12, 11, 8, 12 and 7. Each student was asked to indicate their perception about the each of the 50 statements on a five point Likert scale 0-4 (4 = strongly agree, 3 = agree, 2 = unsure, 1 = disagree, and 0 = strongly disagree). Wordings of the statements of the original DREEM questionnaire were rearranged and/or rephrased in order to suit the educational environment of the FAUR. There are nine negative statements scored in a reverse manner; high scores on these items indicate disagreement. The maximum possible subtotal scores for domain SPL, SPT, SAP, SPA and SSP were 48, 44, 32, 48 and 28 and thus the maximum total score was 200.

GLM procedure was used to test whether the SGPA and percentage student perception scores of ethnic majority and minority students were statistically different. Chi square test was performed to determine whether grading categories were affected due to the ethnicity, gender, academic year and degree program.

RESULTS AND DISCUSSION

SGPA of the ethnic minority non-Sinhala students was significantly lower than that of Sinhala students (Table 1). BSc. (Green Technology) students recorded significantly higher SGPA value than those following other two degree programs. Non Sinhala students recorded lower SGPA values in all three degree programs, in both academic years and semesters. Chi square analysis showed that the percentage of students having higher academic achievements were significantly higher among ethnic majority. Severiens and Wolff (2008) have also reported that after one year of study, the academic performance of minority international students in Dutch Universities was lower than local students, even

though their approaches to learning had been no different. Having a good performance in examinations is a strong motivational factor for continuous and enthusiastic academic engagement. Furthermore, being repeat in examinations put an extra burden on students, creating a cascade of adverse effects. Above all, students' career prospects and interest towards higher studies are hampered due to poor academic performance. This study was conducted at the midpoint of all three undergraduate academic programs. Therefore, it is of utmost importance to develop short term and medium/long term strategies, aiming present and prospective ethnic minority students, respectively to upgrade their academic performance.

Table 1: Academic performance between ethnic majority and minority undergraduate students of the Faculty of Agriculture, University of Ruhuna

Variables		Ethnic category		Mean	P value
		Majority	Minority		
Degree	Agric.Business Management	2.748±0.07	1.972±0.18	2.360±0.10	0.00
	Agric. Res. Mgt and Technology	2.676±0.04	2.162±0.11	2.419±0.06	0.00
	Green Technology	3.114±0.09	2.719±0.16	2.917±0.09	0.01
Academic year	1	2.702±0.04	2.214±0.10	2.458±0.14	0.00
	2	2.845±0.06	2.385±0.15	2.615±0.14	0.00
Semester	1	2.735±0.04	2.011±0.14	2.373±0.06	0.00
	2	2.766±0.05	2.570±0.12	2.668±0.06	0.00
Overall		2.747±0.03	2.267±0.08	2.65±0.95	0.00
Results grading among each ethnic category (%)					
First class		7.1	5.6	6.8	Chi square P=0.001
Second Uppers		21.4	12.1	20.1	
Second Loweres		18.4	13.1	17.7	
Pass		18.1	10.2	17.0	
Medical with referred		7.1	9.4	7.4	
Referred		22.3	41.1	24.9	
Medicals		4.3	5.6	4.5	
Not applied		1.0	2.8	1.3	

Another aspect that needs immediate attention is the “not applied for the examination” category of students and the percentage of the submission of medicals both high among minority students. Since these students are prone to be drop out from the courses, academic and general counseling may be required.

Interestingly, percentage of students who submitted medicals and those who did not apply for examinations were low and the percentage of students having good grading was significantly higher among Green Technology students compared to other two degree programs.

It could be argued that students’ perception towards the educational environment would have a direct influence on the academic performance and *vice versa*. However, results of the present study do not support the above common notion. Ethnic minority students held significantly better perception scores with respect to SPL, SAP and SPA (Table 2). However, their perception about the teachers (SPT) and social environment (SSP) were similar to that of ethnic majority students. Severiens *et al.* (2006) have also shown that ethnic background does not seem to be a decisive, unequivocal factor in the extent to which students are integrated in institutions of higher education. Furthermore, Severiens and Wolff (2008) have concluded that for majority students, the impact of formal academic integration was positively related to grades, credits and approaches to learning. However, in the group of minority students, the role of formal academic integration was inconclusive: negatively related to grades, but positively related to the deep approaches to learning.

According to the criteria set out by McAleer and Roff (2001) the overall perception towards the educational environment of the FAUR was found to be “more positive than negative. This indicates that there exists a room for further improvement in students’ perception. With respect to SPL, SAP, SPA and SSP ethnic majority students held a

“more positive than negative” perception. Minority students’ self academic perception was just reaching the level of “excellent”. About SPL, SPA and SSP, minority student also held “more positive than negative” perception. Unfortunately, both majority and minority students’ perception towards teaching (SPT) was found to be under the category of “many problems” and thus needs immediate attention. It is not clear as to why minority students held better perception with respect to many of the aspect. May be they are enjoying better environment than they had held before entering the FAUR.

Table 2: Perception of educational environment between ethnic majority and minority undergraduate students of the Faculty of Agriculture, University of Ruhuna

Domain	Ethnicity		Mean	P Value*
	Majority	Minority		
SPL	64.6±1.4	71.4±1.7	67.2±13.7	0.00
SPT	48.2±1.0	47.9±1.2	48.1±9.3	NS
SAP	61.9±1.6	74.9±2.0	67.0±16.1	0.00
SPA	61.2±1.3	69.5±1.7	64.4±13.2	0.00
SSP	55.0±1.2	54.1±1.5	54.7±11.5	NS
Total	58.4±0.9	63.9±1.2	60.5±12.9	0.00

*NS; P>0.05

Ideally to determine the relationship between the students’ perception and academic performance, each respondent should be individually identified and performance and perception should be analyzed. However, assuming that such an approach would conceal the frank perception, respondents were not individually identified when inquiring their perception. However, the sample of minority students represented almost 75% of the total minority students.

CONCLUSIONS

It was concluded that though ethnic minority students held a better perception towards the educational environment of the FAUR, their academic performance are lower than ethnic majority students. Students' perception towards the educational environment and their academic performance were found to be two different constructs.

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