

Is Pacific Ethnicity Associated to Proactivity: An Investigation in Higher Education

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Abstract— The social, emotional, economic and cultural characteristics of students have emerged in literature showing their importance in student learning and academic achievement. Proactivity has been recently seen to be an essential attribute for success in academic as well as non-academic areas. The research paper considers the possible association between proactivity and ethnicity. Three measures of proactivity namely proactive personality, proactive confidence and proactive behaviour, were used. The Kruskal-Wallis test showed that proactivity levels differed significantly between the ethnic groups - Melanesian, Micronesian, Polynesian and Fiji Indians. The difference was attributed to the Pacific way of life and the unique culture and tradition of the different ethnic groups of the South Pacific.

I. INTRODUCTION

Student retention is arguably the biggest challenge in higher education around the world where except for a handful of universities, the rest are faced with very low retention rates [1]. Students go through various phases of adjustment when they move from one learning environment to another. Most of the students find university life to be somewhat challenging mostly if they are less prepared. Minority students experience additional stress of their minority status other than financial stress [2]. Around the world, diversity also affects student's social life, ethnic minority youths are associated with higher levels of school drop-out, higher levels of unemployment and also higher levels of crime and disorder [3]. The higher education institutes (HEIs) incorporate extensive proactive and positive reinforcement activities to induction and orientation sessions for student success. Clearly, the HEIs acquire and train their students to be willing, proactive, take ownership of education as well as be able to self-manage [4]. Using [5] differential exposure model of personality (Gan, Hu, & Zhang, 2010) revealed that proactive coping plays an important role in university adjustment. This is because proactivity minimizes challenges and have been shown to be important predictors of success [6]. In contrast, less proactive individuals are passive and reactive, preferring to adapt to circumstances rather than to change them [7]. According to [8], proactive people actively seek information and opportunities for improving things, also they do not passively wait for information and opportunities to come to them. It is well investigated that living proactive life lowers stress and increases effectiveness [9]. Similarly, in an organization, employees are expected to progressively demonstrate

proactive behaviours not only because proactive personality positively correlates to job satisfaction but also positively relates to career satisfaction [10].

II. BACKGROUND OF THE STUDY

The five factor model was validated to formulate by [11] to test hypotheses of individual differences in personality. The five-factor model comprised of Big Five traits (Neuroticism, Extraversion, Openness to Experience, Agreeableness and Conscientiousness which was further used to investigate the differences in personality trait across three countries New Zealanders (NZ Europeans, Maori and Pacific Islanders), Australians and South Africans and between ethnic groups [12]. However, due to lack of sufficient data and sample size, finding involving pacific islanders was limited to only the analysis of their ethnic group differences in employment context. The study indicated teachers' use of proactive behaviour management is favourably associated in achieving positive behaviours of students [13]. However, their finding relied heavily on teachers proactive work in having culture-responsive teaching strategies such as in making curriculum relevant to white and African American students, varying way of communicating, engaging and displaying student understanding. These studies provided the motivation for this research which investigates if differences in proactivity exist in the ethnic groups of tertiary students in the South Pacific. It is also of significant interest to examine how proactive personality, confidence and behaviour influence the feelings of these tertiary students.

III. LITERATURE REVIEW

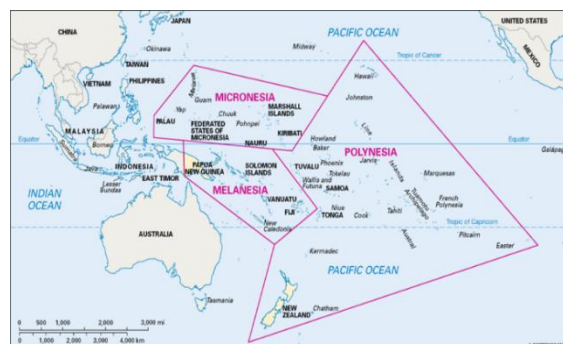


Fig. 1 The distribution of different ethnic groups in the Pacific

Ethnic group is defined as a group of people with distinct culture, shared historical, national or religious identity [14]. Polynesia, Micronesia and Melanesia are geographically isolated groups of countries in the Pacific region as shown in Fig 1. Similar to Small Island Developing States (SIDS), these groups are heavily dependent on educational aid and are struggling with issues of smallness, islandness, remoteness and scatteredness [15]. [16] highlighted the social, cultural and economic impacts of colonial ways of developing and managing education systems in the Pacific and that these are deeply resistant to change. Polynesian population is about 750,000, while Micronesia contains only about 160,000 people whereas Melanesian is the largest of the Pacific in terms of land area and population [17]. The population of each country except Fiji is predominantly of one race and easily included in one of the three ethnic groups. While Fiji is regarded as part of the Melanesian group, it is unique because it has been shaped by relations between indigenous Fijians and Indo-Fijians where huge number of Indians have come from all parts of India [18]. Indian labourers were brought for sugar cane plantations now account for 43% of the population [19]. The indigenous Fijians (i-Taukei) are little more than half of the population (partly Tongan and Melanesian ancestry), followed by Fiji-Indians as the second largest ethnic group in Fiji.

The Pacific is often spoken of as the most linguistically complex region in the world [20] because of the geographical nature of the region, the number of speakers of each language is small, averaging around 5,000–6,000 [20]. In fact, Melanesian countries are more multilingual than Polynesian countries, which have far fewer languages and dialects while the Micronesian being plotted in between [21]. The Pacific islanders also have hidden curriculum and have challenges in picking up information that are implicitly learned [22] compared to children who pick up a lot of information from the environment and learn implicitly. He further explained hidden curriculum refers to opinions, attitudes and values that students learn not from a formal curriculum but are learnt from experience. So formal curriculum mainly/largely focuses on the achievement of white [23] and this is why children of other ethnic groups don't feel so valued and confidence is low in class or within the university learning system. Standard measures of academic performance tend to undermine and underestimate the true academic ability and performance of ethnic minority students [24]. The Polynesian, Melanesian, and Micronesian students usually do not experience the same level of academic success as their Anglo peers [25]. Culture is also an important factor influencing behaviour so are other factors like personality and background [26].

IV. METHODOLOGY

The research methodology for this study is quantitative, whereby the research design follows a survey methodology.

A. Settings

This regional university has campuses and centers housed in all 12 member countries and students are from diverse cultural background fragmented along ethnic lines that are divided into three major groups Micronesian, Melanesian, and Polynesian of Oceania. Due to the large numbers of Fiji-Indians, a fourth group was added for this research. Ultimately, very few of the USP student speak English as a first language and this has been a concern for a number of years by many USP students because of lack of fluency in

English [27]. The English Language Skills Assessment (ELSA) test demonstrates the required level of English proficiency to proceed with USPs undergraduate studies. Likewise, Online Mathematics Diagnostic Tool (OMDT) identifies the areas of mathematics weakness in students and provide remediation to bridge the numeracy gaps [28, 29]. These approach ensures proactive measures and demand HEIs for innovative culture in problem solving.

The blended course chosen from the University for this study is UU100 - Communication and Information Literacy. It is a 14-week first year course offered in blended and online modes at all the campuses and centers of the university. The aim of this course is to ensure that all incoming students develop knowledge and competence in the use of computers and information resources. The course is designed to address the broader imperative for students to develop their capacity to locate, access, evaluate and use information efficiently and effectively.

B. Process

The students were given an online questionnaire which was designed using a 7-point Likert scale ranging from "strongly disagree" to "strongly agree". The survey asks for demographic information and measures goal orientation, self-directed learning, student wellbeing, positive affect, proactive behaviours, and students' feelings about their course (as measured by felt belonging, felt leaving and overall satisfaction). Participants are first year students who have just begun their academic program in the university. The questionnaire was adopted from [30] therefore had already gone through the reliability test. This research is part of a bigger study conducted at USP. The questionnaire was available online in the UU100 Moodle shell and the link to the questionnaire was provided to the students via course announcement forum, Moodle message and email distribution. The questionnaire was open to students for 1 week with a student taking a maximum time of 15 minutes to fill in the questionnaire.

The student's responses were voluntary and confidential. Responses were not identified by individuals. All responses were compiled together and analysed as a group. The details of the participants were anonymous and the responses were only used for analysis purpose for this study. For analysis, the MS Excel and SPSS software were used and descriptive and correlation analysis were carried out. To test for normality, Kolmogorov-Smirnov and Shapiro-Wilk tests for normality was used. To test the hypothesis, Mann-Whitney and Cronbach Alpha tests were carried out.

C. Sampling

The sample distribution of the four groups are shown in Fig. 2. Majority of the participants (53%) belonged to the Melanesian group. This is because the three largest campuses are from countries categorised as Melanesian highly contributing to the university enrolment numbers. The Fiji Indian group represented a significant 22% of the sample since a large number of students enrolled in Laucala campus are from this group. The remaining 25% participants belonged to Micronesian and Polynesian groups (11% and 14%, respectively). There were 68% female participants compared to male participants which somewhat reflects the enrollment ratio in USP. For majority of the students, English is their second language.

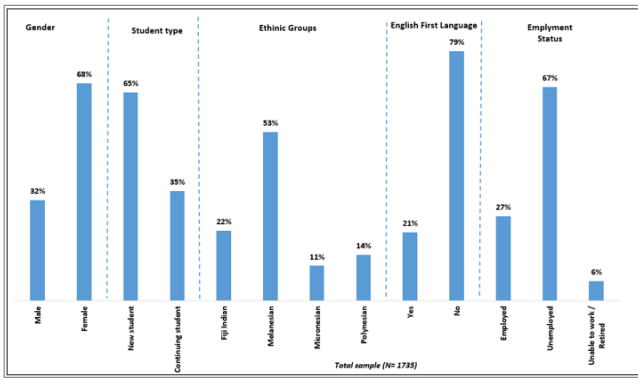


Fig. 2 Sample distribution of the four groups

V. RESULTS

The survey data comprising 1735 responses was analysed using IBM SPSS Statistics 20. Three aspects of proactivity (that is, proactive personality, proactive confidence and proactive behaviour) were gathered for undergraduate students of a multi-regional campus based in the South Pacific. The four groups namely, Melanesian, Micronesian, Polynesian and Fiji Indians. The survey utilized three 7-point Likert scales to gather the proactivity of students across different groups.

Figure 3 presents the average scores of proactive personality, proactive confidence and proactive behaviour for the four groups.

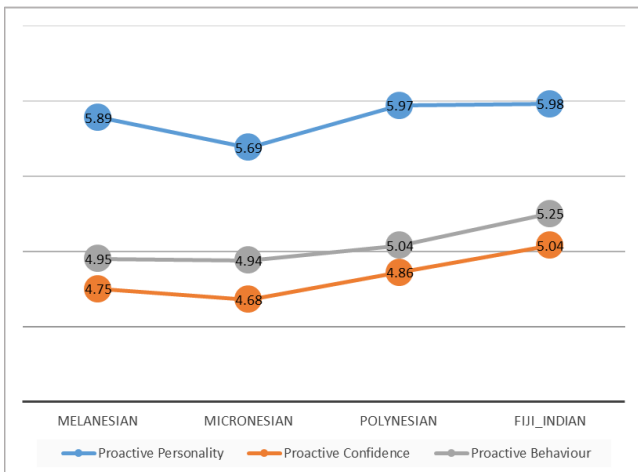


Fig. 3 Mean scores for proactivity of the four groups

The averages for proactive personality (5.98), proactive confidence (5.04) and proactive behaviour (5.25) were found to be the highest for the Fiji Indian students. The difference between proactive personality averages for the Polynesian and Fiji Indian students was relatively small (0.01) but a greater gap can be noticed between these groups when compared with the Melanesian and Micronesian students. The average scores for proactive confidence and proactive behaviour of Fiji Indian students is higher than the other three groups while the difference with the Melanesian, Micronesian and the Polynesian students was not very large. It is evident from the above results that the proactivity averages differ across the groups but it does not suggest whether these differences are significant. Therefore, further analysis is required to determine if there is a statistical significance difference between students proactivity across the four groups.

A test was conducted to investigate whether the sample data was taken from a normally distributed population using the Kolmogorov-Smirnov and Shapiro-Wilk tests for normality. A normality test is conducted to determine whether to use a parametric or a non-parametric test for inferential statistics. The results of the test are provided in Table I.

The results show that the data did not pass both the Kolmogorov-Smirnov and Shapiro-Wilk tests for normality ($p < 0.05$) meaning the sample data does not follow normal distribution. Therefore, it is recommended that a non-parametric test be used for the hypothesis testing. Since the means of four independent groups are compared, the most appropriate non-parametric test to analyse this kind of data is the Kruskal-Wallis test.

Table I. Test for normality

	Kolmogorov-Smirnov ^a			Shapiro-Wilk		
	Statistic	df	Sig.	Statistic	df	Sig.
{1 = Melanesian, 2 = Micronesian, 3 = Polynesian, 4 = Fiji Indian						
Proactive Personality	.107	919	.000	.898	919	.000
1 Proactive Confidence	.045	919	.000	.989	919	.000
Proactive Behaviour	.040	919	.001	.986	919	.000
2 Proactive Personality	.110	190	.000	.906	190	.000
2 Proactive Confidence	.065	190	.041	.981	190	.010
2 Proactive Behaviour	.087	190	.001	.974	190	.001
3 Proactive Personality	.122	241	.000	.915	241	.000
3 Proactive Confidence	.063	241	.023	.981	241	.003
3 Proactive Behaviour	.064	241	.018	.976	241	.000
4 Proactive Personality	.142	385	.000	.882	385	.000
4 Proactive Confidence	.075	385	.000	.973	385	.000
4 Proactive Behaviour	.075	385	.000	.973	385	.000

The following research questions with the respective hypothesis were tested using the Kruskal-Wallis test:

Research question 1: The first research question tried to determine if there is a significant difference in proactive personality of the four groups. Thus, the null hypothesis for this research question was:

H_0 : There proactive personality is same for all the four groups.

Research question 2: The second research question tried to determine if there is a significant difference in proactive confidence of the four groups. Thus, the null hypothesis for this research question was:

H_0 : There proactive confidence is same for all the four groups.

Research question 3: The third research question tried to determine if there is a significant difference in proactive behaviour of the four groups. Thus, the null hypothesis for this research question was:

H_0 : There proactive behaviour is same for all the four groups.

Table II presents the result of the hypothesis testing performed using the Kruskal-Wallis test. The result for the first research question shows that there is a statistical significant difference (Chi square = 15.115, $p = 0.002$, $df = 3$) between the mean proactive personality scores of the four groups. Similar results were also achieved for the second research question showing that there is a statistically significant difference (Chi square = 21.847, $p = 0.00$, $df = 3$) between the means of proactivity behaviour of the groups. Likewise, there is enough evidence (Chi square = 20.361, $p = 0.000$, $df = 3$) to reject the null hypothesis of the third research question, therefore it could be

stated that the proactive confidence was statistically and significantly different for the groups.

Table II. Kruskal-Wallis Test

	Proactive Personality	Proactive Confidence	Proactive Behaviour
Test Statistic	15.115	21.847	20.361
df	3	3	3
Asymp. Sig.	.002	.000	.000

The Kruskal-Wallis test only suggests that there is a significant difference in the averages across the groups so a post-hoc analysis is required to determine where exactly this difference between the groups lie. A post-hoc analysis was conducted to test the pairwise comparisons for proactive personality, proactive confidence and proactive behaviour. The results are provided in Table III, Table IV, Table V, respectively.

Table III. Test for comparing means for the proactivity of all groups

Sample 1- Sample 2	Test Statistic	Std. Error	Std. Test Statistic	Sig.	Adj. Sig.
2.00 – 1.00	96.811	39.880	2.428	.015	.091
2.00 – 3.00	-149.258	48.548	-3.074	.002	.013
2.00 – 4.00	-160.071	44.366	-3.608	.000	.002
1.00 – 3.00	-52.447	36.215	-1.448	.148	.885
1.00 – 4.00	-63.260	30.379	-2.082	.037	.224
3.00 – 4.00	-10.813	41.103	-0.263	.792	1.000

Each row tests the null hypothesis that the Sample 1 and Sample 2 distributions are the same.

Asymptotic significances (2-sided tests) are displayed. The significance level is .05.

Table IV. Pairwise comparison of proactive personality

Sample 1- Sample 2	Test Statistic	Std. Error	Std. Test Statistic	Sig.	Adj. Sig.
2.00 – 1.00	22.811	39.916	.571	.568	1.000
2.00 – 3.00	-71.045	48.593	-1.462	.144	.862
2.00 – 4.00	-155.588	44.407	-3.504	.000	.003
1.00 – 3.00	-48.234	36.248	-1.331	.183	1.000
1.00 – 4.00	-132.777	30.407	-4.367	.000	.000
3.00 – 4.00	-84.543	41.140	-2.055	.040	.239

Each row tests the null hypothesis that the Sample 1 and Sample 2 distributions are the same.

Asymptotic significances (2-sided tests) are displayed. The significance level is .05.

Table V. Pairwise comparison of proactive confidence

Sample 1- Sample 2	Test Statistic	Std. Error	Std. Test Statistic	Sig.	Adj. Sig.
2.00 – 1.00	-8.718	39.915	-.218	.827	1.000
2.00 – 3.00	-44.024	36.247	-1.215	.225	1.000
2.00 – 4.00	-134.841	30.406	-4.435	.000	.000
1.00 – 3.00	-35.307	48.592	-.727	.467	1.000
1.00 – 4.00	-126.123	44.405	-2.840	.005	.027
3.00 – 4.00	-90.816	41.139	-2.208	.164	.164

Each row tests the null hypothesis that the Sample 1 and Sample 2 distributions are the same.

Asymptotic significances (2-sided tests) are displayed. The significance level is .05.

The results of the pairwise comparison for the four groups shows that there is a significant difference in proactive personality between the Micronesian and Fiji Indian students (Adj. Sig. < .013), and between Micronesian and Polynesian students (Adj. Sig. < .002). The averages for proactive confidence differed statistically significantly between students from the Micronesian and Fiji Indian groups (Adj. Sig. < .003), and between the Melanesian and Fiji Indian students (Adj. Sig. < .000). This suggests that students from the Fiji Indian group have higher confidence in performing proactive behaviour when compared Micronesian and Melanesian students. for the four groups shows that there is a significant difference (Adj. Sig. < .02) in proactive behaviour between the Melanesian students and Others, and between Polynesian students and Others. Likewise, a significant difference in mean for proactive behaviour was detected between the Micronesian and Fiji Indian students (Adj. Sig. < .000), and between students of the Melanesian and Fiji Indian groups (Adj. Sig. < .027). This means that the actual proactive behaviour of Fiji Indian students is significantly higher than the Melanesian and Micronesian students.

VI. DISCUSSION

This study aimed to find if there exists a difference in proactivity levels between the four ethnic groups which represent students of USP, that is, Melanesian, Micronesian, Polynesian and Fiji Indians. Three measures of proactivity namely proactive personality, proactive confidence and proactive behaviour, were used and these were carried out using Likert-scales. The Kruskal-Wallis test indicated that proactivity levels differed significantly between these groups. Students in these groups have various cultural norms that play a vital role in their proactivity levels. For example, in Fiji silence is seen as a means to show respect in meetings and traditional ceremonies [31]. This ‘culture of silence’ has been often seen to translate into the education system as well as the workplace. Students emulate this culture in classrooms especially when they do not understand an issue or concept at hand because they may be too shy, hence they keep quiet. Another example, is the ‘culture of respect’ which is deeply rooted in the Fijian culture. In meetings, everyone has to quietly listen to the chiefs and those who hold high authority to show a mark of respect. Even though there may not be consensus, they often tend to agree with the higher authorities out of respect. Unfortunately, these ‘Pacific way of life’ also prevents students from active participation in the teaching and learning process [32].

VII. CONCLUSION

While many social, emotional, economic and cultural characteristics of students have emerged in literature showing their importance in student learning and academic achievement, proactivity has been one of the latest addition. A number of recent work have shown the importance of proactivity in academic as well as non-academic areas. This research is an extension of the work carried out on proactivity by Geertshuis et al. in 2014. The research mentions that to further advance the research, one has to better understand the relationships between proactivity and variables which are known (and also currently unknown) to be associated with students learning success. This paper reflects the possibility of how ethnicity can have an impact on the student's proactivity level, through the case study of first year university students at the University of the South Pacific. Particular importance has been given to the realization and classification of ethnicity groups in the South Pacific region in to four categories namely Melanesian, Micronesian, Polynesian and Fiji Indians. The focus of the study was to measure proactive personality, proactive confidence and proactive behavior for each respective ethnic group and the relationships among them. The study revealed that among these ethnic groups the Fiji Indians were more confident in performing proactive behavior when compared to the other groups. Interesting inter-relationships were also seen between the different ethnic groups which also points to the unique culture and tradition of the groups. The findings of this research also suggests the need for ethnic consideration when designing and developing programs tailored for undergraduate studies, together with the dire need to introduce modules on proactivity in the curriculum so that students enter higher education with a sound level of proactivity.

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