

Critical Analysis on the Performances of the IQ and General Knowledge among Graduates in the Northern Province of Sri Lanka

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Abstract - Unemployment is a significant sustainability issue in Sri Lanka[1], [2]. The number of unemployed graduates is higher than the other unemployed youths in the country[3], [4]. Several studies revealed that they do not have enough employability skills which are expected by the present employers in the government and private sectors[5], [6]. Commonly, competitive examinations for recruitment assess the performance of Intelligence Quotient (IQ) and General knowledge among candidates. This study attempts to examine the performance of IQ and General Knowledge among recently passed out graduates in Northern Province of Sri Lanka. For that purpose secondary data of 2459 graduates belonging to the Northern Province were obtained from the Web site of Northern Provincial Council. Chi-square statistical test was carried out to find out any association in Gender, Ethnic group, Permanent district, offered subjects Tamil, History, Civics, Geography, Information Technology (IT), Agriculture, Second Language, Media, English and Counseling with scoring at least 40 marks (Pass Score) in IQ. Same test was carried out to identify the association with scoring Pass Score in General Knowledge. The study revealed that the IQ has association individually with Ethnic group of graduates and with the offered subjects Tamil, History, Civics, IT, Agriculture and Counseling. At the same time General Knowledge has association individually with Gender and offered subjects Tamil, Geography, Second Language and Counselling. And also there was positive correlation between scoring in IQ and General Knowledge.

I. BACKGROUND OF THE STUDY

Employers in the government and private sector expect their employees to hold skills that could help them work efficiently and effectively[2],[7]. They assess the Intelligence Quotient (IQ) and General Knowledge level to select suitable persons. This study tries to identify the factors that has association with the IQ and General Knowledge of graduates. Results of the competitive examination to recruit graduates to Sri Lanka Teachers service in Northern Province is selected for analysis.

II. RESEARCH PROBLEM

At present, graduates do not have enough employability skills which are expected by employers[8]. Further, most of the undergraduate programmes do not fully meet the needs of the job market. And also the reading habit among undergraduates is decreasing. Due to these reasons large number of graduates fail to score enough marks in the competitive examinations and in the interviews conducted by the government and private sectors [2],[7]. In addition to that, performance of the IQ and General knowledge among graduates are low and diverse among different disciplines.

III. OBJECTIVE OF THE STUDY

1. To examine the performance of IQ among recently passed out graduates in Northern Province of Sri Lanka.
2. To examine the performance of General knowledge among recently passed out graduates in Northern Province of Sri Lanka.

IV. METHODOLOGY

It was a descriptive quantitative study. Secondary data were obtained from Northern Provincial Council (NPC) Web site (www.np.gov.lk). The data were based on the recruitment examination conducted by the NPC for recruiting teachers for the schools in Northern Province. There were 2465 graduates' performance marks of IQ and General knowledge. Descriptive and inferential statistics were used for analyzing the data. For that purpose Statistical Package for Social Sciences version 20.0 was used.

V. RESULTS

2736 (Male - 846, Female -1890) graduates were applied for the competitive examination to fill the vacancies of Tamil medium teachers in Northern Province. Among those graduates only 2459 graduates of Northern Province sat for both (IQ and General Knowledge) exams and only 44.2% and 58.1% of graduates scored at least 40 marks (Pass Score) in IQ and General Knowledge respectively.

1. Performance of IQ

TABLE I

NO OF STUDENTS WHOSE IQ SCORE BELOW 40 AND ABOVE AND EQUAL TO 40 MARKS

Factor Below 40 (Row %)		IQ Marks	
		Above or equal 40(row%)	
Gender	Male	426(56.8%)	324(43.2%)
	Female	946(55.4%)	763(44.6%)
Ethnic Group	Sri Lankan Tamil	1209(54.6%)	1005(45.4%)
	Muslim	163(66.5%)	82(33.5%)
Permanent District	Jaffna	864(54.4%)	724(45.6%)
	Kilinochchi	79(55.6%)	63(44.4%)
	Mannar	193(59.9%)	129(40.1%)
	Mullaitivu	78(60.0%)	52(40.0%)
	Vavuniya	158(57.0%)	119(43.0%)
Offered the subject Tamil	No	737(49.3%)	759(50.7%)
	Yes	635(65.9%)	328(34.1%)
Offered the subject History	No	1038(53.3%)	908(46.7%)
	Yes	334(65.1%)	179(34.9%)
Offered the subject Civics	No	969(54.2%)	820(45.8%)
	Yes	403(60.1%)	267(39.9%)
Offered the subject Geography	No	958(56.7%)	733(43.3%)
	Yes	414(53.9%)	354(46.1%)
Offered the subject IT	No	1266(57.8%)	924(42.2%)
	Yes	106(39.4%)	163(60.6%)
Offered the subject Agriculture	No	1356(57.0%)	1021(43.0%)
	Yes	16(19.5%)	66(80.5%)
Offered Second Language	No	1293(55.8%)	1026(44.2%)
	Yes	79(56.4%)	61(43.6%)
Offered the subject Media	No	1322(55.7%)	1051(44.3%)
	Yes	50(58.1%)	36(41.9%)
Offered the subject English	No	1305(56.3%)	1014(43.7%)
	Yes	67(47.9%)	73(52.1%)
Offered the subject Counseling	No	1125(54.9%)	925(45.1%)
	Yes	247(60.4%)	162(39.6%)

The above table shows the number of graduates falling under each category. Further Chi-square test is performed to check whether there is an association between the gender and number of students who have scored at least 40 marks (pass score) in IQ exam. Under the assumption that there is no association between Gender and scoring Pass Marks in IQ (greater than or equal to 40), the Chi-Square test statistics is 0.442 and the p-value is 0.506. Since the p-value is greater

than 0.05 it is concluded that there is no association between gender and scoring marks above or equal to 40 in IQ.

When considering the Ethnic Group, under the assumption that there is no association between Ethnic Group and scoring pass marks in IQ, the Chi-square test statistics is 12.715 and the p-value is 0.00. Since the p-value is lesser than 0.05 it is very less chance, under the above assumption, of appearing the pattern as given in the above table. While 45.4% of Sri Lankan Tamil graduates scored pass marks only 33.5% of Muslim graduates scored pass marks in IQ.

When considering Permanent District, the Chi-square test statistic is 4.587 and the p-value is 0.332. So there is no association between the Permanent District and the scoring pass marks for IQ.

When considering the graduates who have offered the subjects Tamil (Chi-square statistic: 66.049 and the p-value: 0.00), History (Chi-square statistic: 22.791 and the p-value: 0.00), Civics (Chi-square statistic: 7.079 and the p-value: 0.008), Information Technology (IT) (Chi-square statistics:32.896, P-value: 0.00), Agriculture(Chi-square statistic: 45.277, p-value: 0.00) and Counseling (Chi-square statistic: 4.202, p-value: 0.040) there is enough evidence to state that there is an association between the score for IQ and subjects offered individually.

But when considering the subjects Geography (Chi-square statistics: 1.615, P-value: 0.204), Second Language (Tamil/Sinhala) (Chi-square statistic: 0.024, p-value: 0.876), Media (Chi-square statistic: 0.199, p-value: 0.656), English (Chi-square statistic: 3.793, p-value: 0.051) there is no enough evidence to reject the assumptions. So there is no association between the IQ score and those subjects individually.

2. Performance of General knowledge

TABLE II

NO OF STUDENTS WHOSE GENERAL KNOWLEDGE SCORE BELOW 40 AND ABOVE AND EQUAL TO 40 MARKS

Factor Below 40 (Row %)		General Knowledge marks	
		Above or equal 40(row%)	
Gender	Male	274(36.5%)	476(63.5%)
	Female	757(44.3%)	952(55.7%)
Ethnic Group	Sri Lankan Tamil	922(41.6%)	1292(58.4%)
	Muslim	109(44.5%)	136(55.5%)

Permanent District	Jaffna	689(43.4%)	899(56.6%)
	Kilinochchi	45(31.7%)	97(68.3%)
	Mannar	133(41.3%)	189(58.7%)
	Mullaitivu	50(38.5%)	80(61.5%)
	Vavuniya	114(41.2%)	163(58.8%)
Offered the subject Tamil	No	540(36.1%)	956(63.9%)
	Yes	491(51.0%)	472(49.0%)
Offered the subject History	No	828(42.5%)	1118(57.5%)
	Yes	203(39.6%)	310(60.4%)
Offered the subject Civics	No	759(42.4%)	1030(57.6%)
	Yes	272(40.6%)	398(59.4%)
Offered the subject Geography	No	764(45.2%)	927(54.8%)
	Yes	267(34.8%)	501(65.2%)
Offered the subject IT	No	910(41.6%)	1280(58.4%)
	Yes	121(45.0%)	148(55.0%)
Offered the subject Agriculture	No	1003(42.2%)	1374(57.8%)
	Yes	28(34.1%)	54(65.9%)
Offered Second Language	No	956(41.2%)	1363(58.8%)
	Yes	75(53.6%)	65(46.4%)
Offered the subject Media	No	992(41.6%)	1381(58.2%)
	Yes	39(45.3%)	47(54.7%)
Offered the subject English	No	970(41.8%)	1349(58.2%)
	Yes	61(43.6%)	79(56.4%)
Offered the subject Counseling	No	828(40.9%)	1212(59.1%)
	Yes	193(47.2%)	216(52.8%)

When considering the Gender there is enough statistical evidence (Chi-square statistics: 12.897 p-value: 0.00) to state that there is an association between the Gender and scoring pass marks in General knowledge.

But for the Ethnic Group (Chi-square statistics: 0.734 p-value: 0.392), Permanent District (Chi-square statistics: 8.264 p-value: 0.082) no enough evidence to reject the assumption that there is no an association between the General knowledge score and Ethnic Group and between General knowledge score and Permanent District.

When considering the subjects offered by the graduates there is statistical evidence to state that there is an association between General knowledge score and the following offered subjects: Tamil (Chi-square statistics: 53.350 p-value: 0.00), Geography (Chi-square statistics: 23.527 p-value: 0.00), Second Language (Tamil/ Sinhala) (Chi-square

statistics: 8.266 p-value: 0.004) and Counseling (Chi-square statistics: 5.576 p-value: 0.018). But no association between General knowledge score and the following offered subjects: History (Chi-square statistics: 1.478 p-value: 0.224), Civics (Chi-square statistics: 0.670 p-value: 0.413), IT (Chi-square statistics: 1.157 p-value: 0.282), Agriculture (Chi-square statistics: 2.109 p-value: 0.146), Media (Chi-square statistics: 0.428 p-value: 0.513) and English (Chi-square statistics: 0.165 p-value: 0.685).

3. Correlation between IQ and General knowledge

Correlation between the IQ marks and the General knowledge marks is 0.348 (significant at 0.01 level). Since this value is positive increase in one variable causes the other variable to increase.

VI. CONCLUSION

The study revealed that there was an association between gender and scoring Pass Score in General Knowledge but no association between gender and scoring Pass Score in IQ.

There was an association between Ethnic group and scoring Pass Score in IQ but not between Ethnic group and scoring Pass Score in General Knowledge.

There was no association between Permanent District of the graduates and scoring the Pass Score in IQ and between Permanent District and scoring Pass Score in General Knowledge.

There was an association between scoring Pass Score in IQ and offered subjects Tamil, History, Civics, IT, Agriculture and Counseling individually.

There was an association between scoring Pass Score in General Knowledge and offered subjects Tamil, Geography, Second Language and Counseling individually.

There was significant positive correlation between scoring Pass Score in IQ and General Knowledge.

VII. RECOMMENDATIONS

Existing undergraduate curriculum need to be enriched with respect to IQ and General knowledge.

Undergraduates need to be encouraged to complete activities that could improve the reading habits and library usage during their degree programme.

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