ENGLISH LANGUAGE PROFICIENCY;
AN IMPORTANT SOCIO-ECONOMIC FACTOR AND ITS IMPACT ON STUDENT'S PERFORMANCE

ORIGINAL
PROF-1839

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ABSTRACT… Introduction: Each year, more than 30,000 students sit in the Government sponsored Entrance Test conducted by University of Health Sciences, Lahore for admission in Public and Private Medical & Dental Institutes of Punjab, Pakistan. Objective: In this study, we have embarked to seek the relationship of the performance of students in the English component of the test and their sciences components scores and how this English-Science relationship varies amongst the developed and underdeveloped districts of Punjab, Pakistan. **Period:** Three years from 2008 to 2010. **Methodology:** The sciences components scores of the candidates in MCAT, their scores in English portion in the test and their demographic variables were entered into Statistical Package for Social Sciences (SPSS) v.16. Parametric tests were applied. **Results:** Nearly 14% of the question paper tests proficiency of the candidates in the English Grammar. The students from the socioeconomically challenged districts scored less marks in English component as well as in the sciences component of Entrance Test when compared with the scores of the students of more developed districts ($p<0.05$). The difference in the mean marks of English and Sciences components of the test when adjusted for weightage was higher in the socioeconomically developed districts ($p<0.05$). A steady improvement from 2008 to 2010 in the scores obtained by candidates in English component of the Entrance Test was observed ($p<0.05$). **Conclusions:** For admission in Medical and Dental Colleges in Punjab, candidates scoring more than 60% marks in their Higher Secondary School Certificate Board Examination, have to sit in a uniform Entrance Test in which from the year 2008-2009, candidates from socioeconomically low districts have performed poorly in both English component and sciences components of test in comparison to the candidates from more developed districts. The comparatively lower score is more significant in sciences components of test. The lower scores of the less developed districts, candidates can not therefore be attributed to their low proficiency in the English language but rather to a lower general educational performance.

Key words: Entrance Test, Socioeconomic, English Language Proficiency, Punjab Pakistan.

INTRODUCTION

Each year, millions of students worldwide sit in Entrance Test to compete for limited seats in various disciplines within academic institutions. The increasing trend of using Entrance test as one of the variables for ascertaining the merit of the candidate has become a psychosocial burden of immense proportion in both the developed and the developing world. In the USA, each college is an examining body in itself and grants its own degree on successful completion of the program[1]. The idea to standardize the education and qualification by allowing the students to sit in a Scholastic Aptitude Test (SAT) is both sensible and practical. Similarly to establish a standardized merit for entry into USA Medical Colleges, the candidates there have to sit in a Medical Colleges Admission Test (MCAT) again because of the wide variability in the educational background and institutions of the student population.

In Pakistan, Higher Secondary School Education is controlled by District Boards of Intermediate and Secondary Education (BISE)[2,3]. Students in Punjab, Pakistan, for example, may study in different Higher Secondary Schools and Colleges but will have to sit in a standardized BISE examination, both pen & paper and practical. Standardization of Higher Secondary School Certificate (HSSC) within a district is therefore achieved through this BISE examination. In total, there are 8

Table-I. Boards of Intermediate and Secondary Education and the ranking of different districts they serve based on the socio-economic indicators[6]

Board	District	Poverty	IMR	GINI	Mean Income	Literacy	Female Literacy	Population per Health Unit	Popu. per School	Sewerage	Tap Water
Rawalpindi	Rawalpindi	3	2	10	9	3	3	26	33	6	4
	Attock	1	11	5	6	4	6	15	22	5	1
	Jhelum	56	27	34	34	17	22	16	18	27	11
	Lahore	7	12	3	4	2	2	30	41	3	2
Lahore	Kasur	25	23	21	29	27	25	28	25	24	37
	Sheikhu-Pura	46	41	21	31	23	17	22	31	20	24
D.G.Khan	D.G.Khan	67	17	21	66	5	4	13	19	50	17
	Faisalabad	11	19	32	5	33	27	38	38	25	36
Faisalabad	Jhang	47	34	30	53	61	62	75	54	46	44
	T.T. Singh	23	26	25	11	26	13	2	17	26	7
Multan	Multan	35	21	9	30	51	29	32	35	8	38
	Vehari	59	50	9	63	30	31	6	21	16	19
	Bwp	31	23	13	24	10	7	36	13	11	58
Bahawalpur	Bahawal-nagar	49	52	13	69	64	42	64	71	50	32
	R.Y.Khan	66	32	15	67	32	24	23	29	14	27
Gujranwala	Gujranwala	24	31	3	28	19	10	42	36	17	48
	Gujrat	8	20	26	3	12	8	19	23	50	52
	Sialkot	15	30	22	16	7	5	24	27	22	15
Sargodha	Sargodha	22	53	38	52	48	41	51	51	50	35

Boards (BISE)[4,5], as shown in Table I.

A decade ago, it was being argued that even though the outcomes of Higher Secondary School Education (HSSE) is standardized within the geographical boundaries of any one Board, the same cannot be said to be true for inter-Board standardization. The system was criticized for having softer and tougher Boards and thereby allowing students from softer Boards to achieve higher merits then those from tougher Boards and thereby stand better chance of getting enrolled in public Medical and Engineering Institutions, in particular. In order to reduce the variability amongst the outcomes of Boards, they started sharing resources and responsibility. Various tasks related to paper setting and assessment are now divided equally amongst Boards so that in effect all the Boards work as a consortium and a combined result of the entire Higher Secondary School Student population is declared. In the presence of this system that standardizes Higher Secondary School certificate, one would have thought that the role of Entrance test for enrollment into graduate studies especially in engineering and medicine would be superficial.

Nevertheless, more than 30,000 students sit in the Government sponsored MCAT conducted by University of Health Sciences, Lahore. Uptill 2010, the test comprised of 30 questions of English, 70 of Biology and 60 each in Physics and Chemistry. The questions were mostly based on factual recall of material provided to students for rote learning in the Higher Secondary Schools by the repetition of the earlier Board examination albiat at a smaller scale but uptill 2010 had 30% weightage in calculating the final merit and this weightage was raised to 50% in 2011. The Entrance test is conducted soon after the BISE examination in more than 12 cites all over Punjab. The medium of examination is English.

In this study, we have embarked to seek the relationship of the performance of students in the English component of the test and their sciences components scores and how this English-Science relationship varies amongst the developed and underdeveloped districts of Punjab, Pakistan.

METHODOLOGY

This cross-sectional study is based on the results of Medical Colleges Admission Test (MCAT) for admissions in the Public and Private Medical & Dental Colleges of Punjab, Pakistan, for the year 2008, 2009 and 2010. The sciences components scores of the candidates in MCAT, their scores in English portion in the test and their demographic variables were entered into Statistical Package for Social Sciences (SPSS) v.16. Parametric tests were applied. The marks obtained by the candidates in the English component of the test were compared for various developed and underdeveloped districts using Analysis of Variance (ANOVA). The adjusted English scores and the sciences components scores were compared using paired sample t-test.

RESULTS

For comparing the marks obtained by candidates from different localities in English component of the test as well as sciences components marks in Entrance Test 2008, 2009 & 2010, ANOVA was applied and a significant difference among different localities in both cases was observed ($p<0.05$). Analysis of Variance (ANOVA) results are presented in Table I.

Table-I. Results of ANOVA on English and Science Subjects part in Entrance Test

Year	Comparison	F-Statistics	p-value
2008	Marks in English part	32.607	.000
	Marks in Science Subjects	38.129	.000
2009	Marks in English part of entrance test	7.015	.000
	Marks in Science Subjects	96.527	.000
2010	Marks in English part	15.595	.000
	Marks in Science Subjects	12.674	.000

Post Hoc Tukey Test divided the mean of different localities in five homogenous groups in both cases and revealed that in both cases, candidates from Sargodha scored the highest marks in Entrance Test 2008 while candidates from Bahawalpur scored the least marks. Results are shown in Fig 1 & 2.

Post Hoc Tukey Test divided the mean marks of different localities in English component of Entrance test 2009 in three homogenous subgroups in both cases. It was revealed that candidates from Multan scored the highest marks in English component of the Entrance Test 2009 while candidates from Dera Ghazi Khan scored the least marks. Candidates from Wah Cantt. who scored the 2nd least marks in English component of Entrance test 2009, scored the highest marks in sciences components while candidates from Dera Ghazi Khan scored the least marks in Entrance test 2009. Results are shown in Fig.3 & 4.

For 2010, Post Hoc Tukey Test divided the mean of different localities in three homogenous groups in both cases and revealed that candidates from Sahiwal, Lahore, Multan and Sargodha scored the highest marks in the English component of the Entrance Test 2010 while candidates from Rahim Yar Khan scored the least marks and in case of Sciences components marks, candidates

Fig-1. Marks in English component of Entrance Test 2008

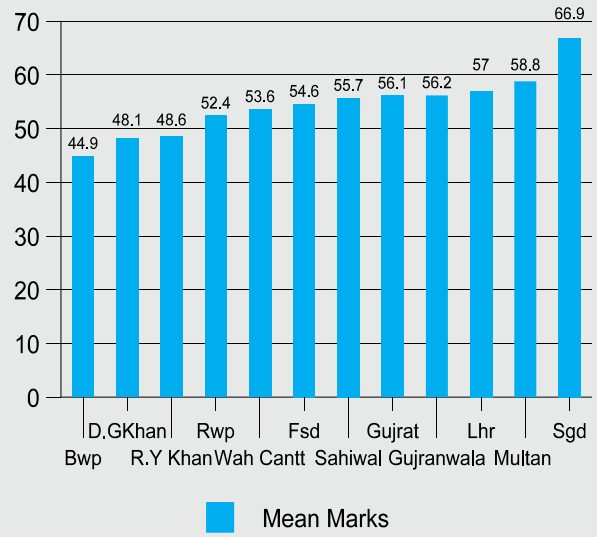


Fig-2. Marks in Sciences components of Entrance Test 2008

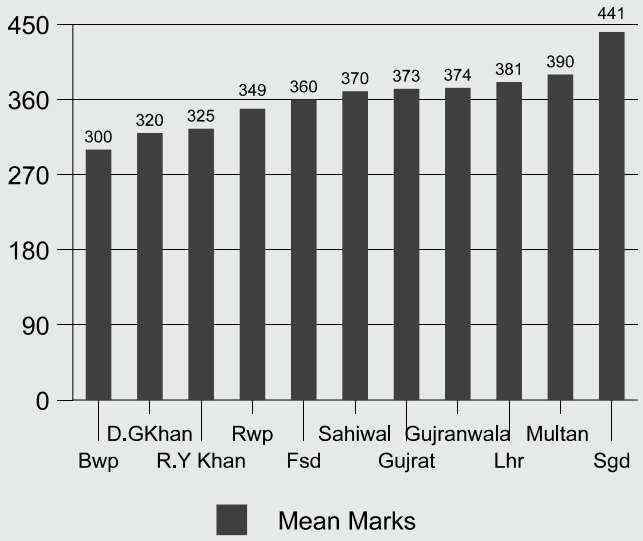


Fig-3. Marks in English component of Entrance Test 2009

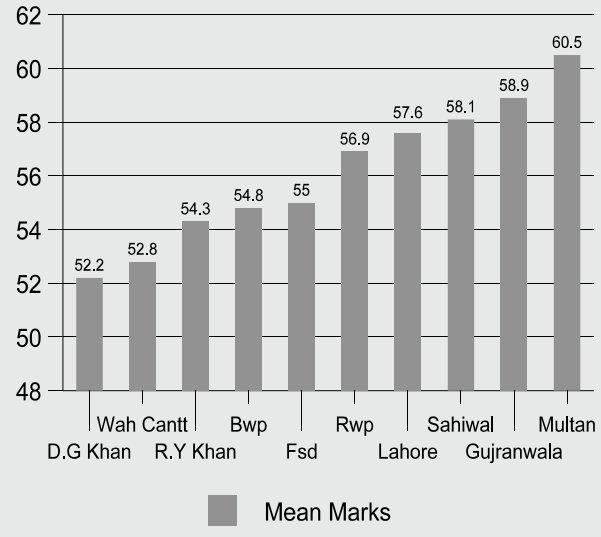
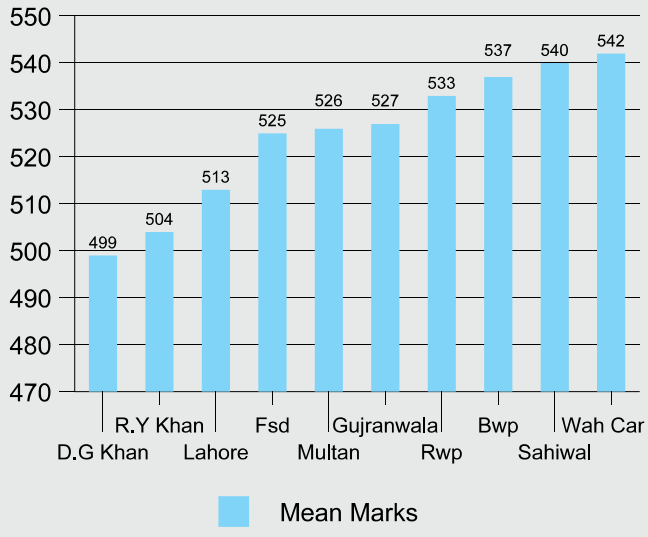


Fig-4. Marks in Sciences components of Entrance Test 2009



from Sargodha scored highest marks while candidates from Gujranwala and Rahim Yar Khan scored the least marks. Results are shown in Fig. 5 & 6.

Moreover, to find out the difference amongst marks obtained by candidates from different districts in English component of the Entrance Test as well as in the Sciences components of each year, Paired Sample t-test was applied. For paired Sample t-test, marks of English component of the Entrance Test were adjusted to make them equivalent to the Sciences components marks. Significant difference amongst English (Adjusted) and

Fig-5. Marks in English component of Entrance Test 2010

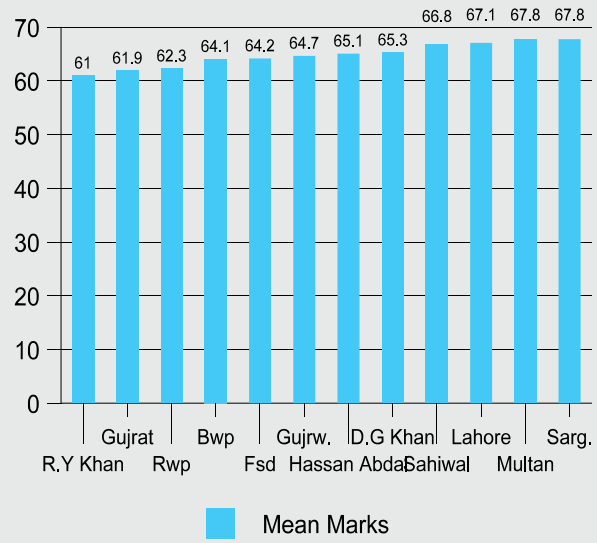
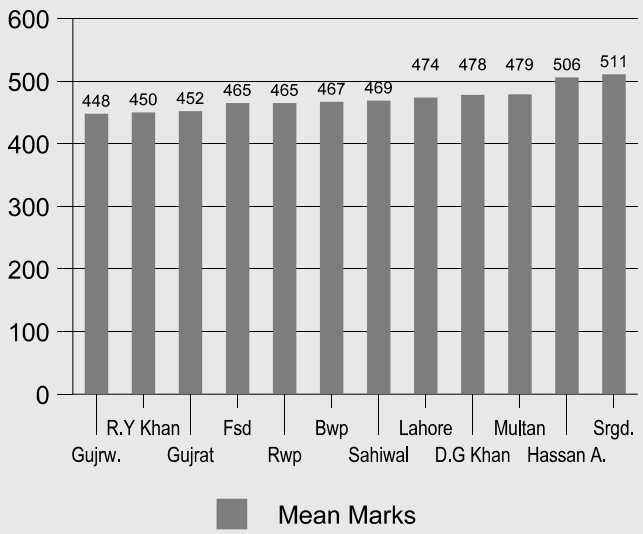


Fig-6. Marks in Sciences components of Entrance Test 2010



Sciences components (Adjusted) marks in Entrance test of each year in each district ($p<0.05$) was found. Candidates scored significantly lower marks in English component than the Sciences components marks in the Entrance tests. Difference in the adjusted marks of Science and English part of the Entrance tests of 2008 to 2010 are shown in Fig 7, 8 & 9.

Marks obtained by the candidates in the English component of the Entrance Test for each year are also shown in Fig 10. The figure clearly shows a gradual increase in the marks obtained by the candidates in English component of the Entrance test from 2008 to 2010 in each district.

DISCUSSION

Nearly 14% of the question paper tests proficiency of the candidates in the English Grammar. English is not the National language of the country neither is it a regional language. However, the medium of instruction in higher education is English and admission in any higher education program is based on the assumption that the candidates will be able to understand English and communicate in English as well. Nearly all the text-books, written materials, lectures, tutorials, group discussions and other knowledge-resources are in English in a country whose National Language is Urdu. Testing proficiency of candidates in English language therefore seems important, since all future academic activities will require it.

In this study, it was revealed that students from the socioeconomically challenged districts scored less marks in English component as well as in the sciences component of Entrance Test when compared with the scores of the students of more developed districts[7,8]. This perhaps is because the students from the less developed districts have limited access to education in the English medium. In the less developed districts, students mostly go to the government secondary and higher secondary schools in which medium of instruction is Urdu. It should not be surprising therefore, to find these students scoring lower marks compared to the students from the developed districts who have greater exposure to English language at schools and also have access to private tuition academies where they could improve proficiency in English Language. Stated differently, candidates from low socioeconomic background scored lower marks in English as well as lower marks in the sciences components of Entrance Test Examination. Similar studies have identified comparable trends in the USA as well[1].

Fig-7. Difference in Science and English Marks of Entrance Test 2009

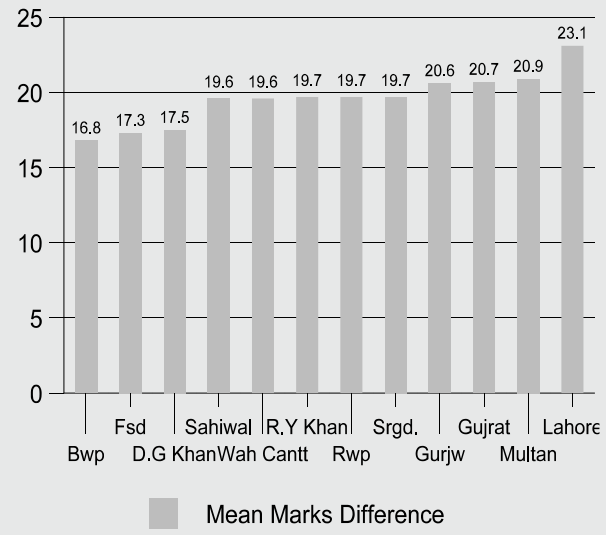


Fig-8. Difference in Science and English Marks of Entrance Test 2009

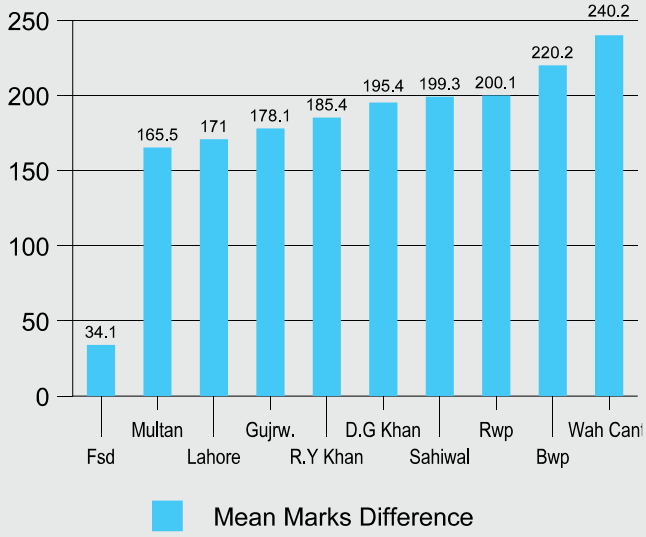
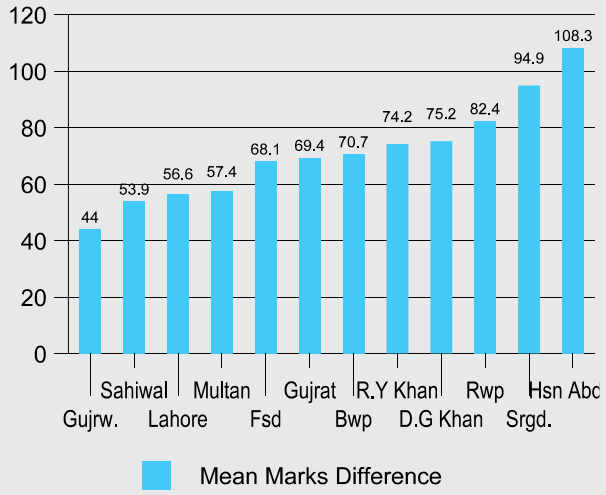


Fig-9. Difference in Science and English



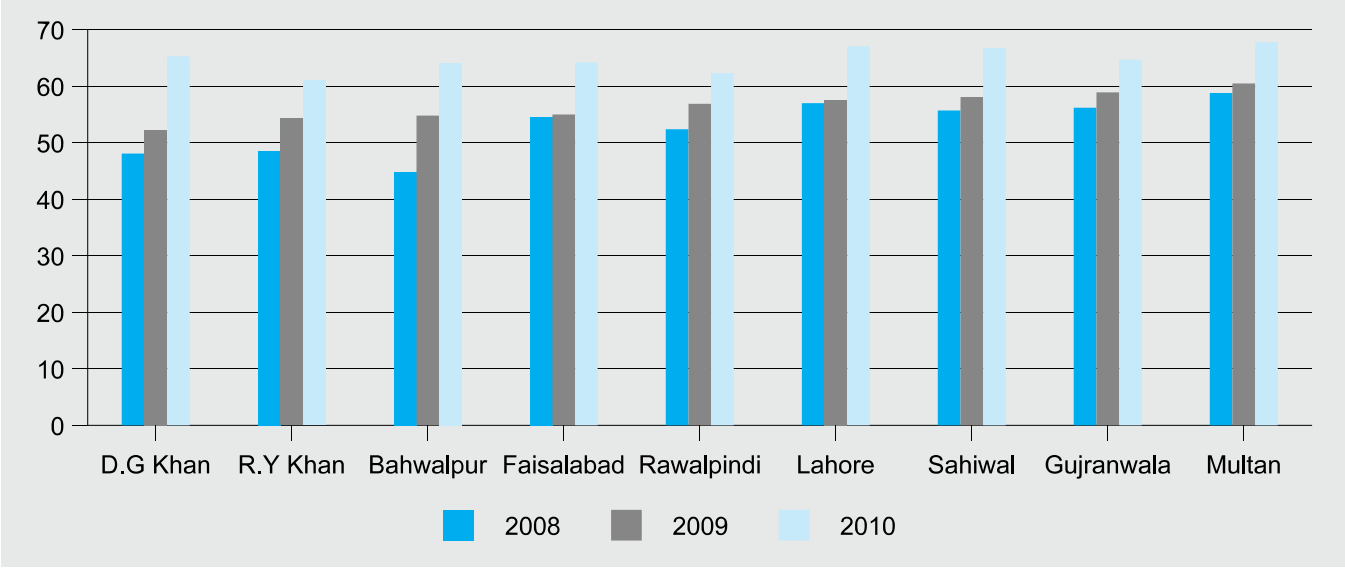
Surprisingly, the study also reflected that the difference in the mean marks of English and Sciences components of the test when adjusted for weightage was higher in the socioeconomically developed districts. Students from the more developed districts scored higher marks in sciences components as compared to English component. Thus, perhaps, because of their educational background and the educational resources available to them, while they were more proficient in English than the candidates in the underdeveloped districts, they were at the same time far more proficient in the science subjects. This result was not different from other studies regionally[9].

The study also identifies an interesting trend evident in Fig. 10 of steady improvement from 2008 to 2010 in the scores obtained by candidates in English component of the Entrance Test. This has been shown in other studies as well and can best be explained by the educational impact of assessment[10,11]. Since assessment drives learning and therefore this should come as no surprise to us that the poor performance in the English component has resulted in more rigorous preparation and better score in this component over the years.

CONCLUSIONS

Punjab is the largest province of Pakistan and has 8 Boards of Intermediate and Secondary Education, each regulating Secondary and Higher Secondary Education in its own geographical boundaries but all collaborating in every aspect of education and assessment to an extent where it can safely be said that the outcomes of their education and assessment is standardized and uniform. For admission in Medical and Dental Colleges in Punjab, candidates scoring more than 60% marks in their Higher

Fig-10. Year-wise comparison for different districts



Secondary School Certificate Board Examination, have to sit in a uniform Entrance Test in which from the year 2008-2009, candidates from socioeconomically low districts have performed poorly in both English component and sciences components of test in comparison to the candidates from more developed districts. The comparatively lower score is more significant in sciences components of test. The lower scores of the less developed districts, candidates can not therefore be attributed to their low proficiency in the English Language but rather to a lower general educational performance. There has nevertheless been a gradual improvement in the English component of the test over the years with comparable improvement in the science component of the test and can best be related to the assessment driven learning phenomenon.

RECOMMENDATIONS

1. Higher Secondary School education and assessment should be further standardized.
2. Admission to Medical and Dental Colleges of Punjab should be based on the Higher Secondary School Certificate only.
3. The educational system should be strengthened in the underdeveloped districts and brought at par with the developed districts of Punjab.
4. Entrance Test represents a parallel system to the Higher Secondary School Certificate examination and poses an immense psychosocial burden on the students and their families[12,13] and therefore it should be discontinued.

REFERENCES

1. Geiser S, Santelices MV. **Validity of High-School Grades in Predicting Student Success Beyond The Freshman Year: High-School Record vs.** Standardized Tests as Indicators of Four-Year College Outcomes. CSHE 2007.
2. Shah D. **Country Report on Decentralization in the Education System of Pakistan: Policies and Strategies.** 2003; 1-50.
3. Rehmani A. **Impact of public examination system on teaching and learning in Pakistan.** ANTRIEP Newsletter 2003 January– June; 8(1): 3-6.
4. Wikipedia, the free encyclopedia: Education in Pakistan. [homepage on the Internet]. Wikimedia Foundation, Inc: [updated 2011 August 12; cited 2011 August 27]. Available from: http://en.wikipedia.org/wiki/Education_in_Pakistan#Secondary_education.
5. Pakmed: **Boards of Intermediate & Secondary Education in Pakistan [homepage on the Internet] pakmed Board Home:** [updated 2011 August; cited 2011 August 27]. Available from: http://www.pakmed.net/board.

6. Siddiqui R. **Income, Public Social Services, and Capability Development: A Cross-district Analysis of Pakistan.** Pakistan Institute of Development Economics, Islamabad. 2008:43.

7. Ramjoo SA. **On The Relationship between Multiple Intelligences and Language Proficiency.** Read. Mat. 2008; 8 (8) : 155-174.

8. Khan J S. **Facts regarding Medical Colleges Admission Test (MCAT) in Punjab, Pakistan: The good, the bad and the ugly.** Trends in Medical Education – 6th Congress of Asian Medical Education Association (AMEA 2011), 23-26 March 2011, Kuala Lumpur, Malaysia.

9. Deverell G. **The Relationship between English Proficiency and Academic Success at the University of the South Pacific.** 1989; 11(1): 10-17.

10. Boud D. **Sustainable assessment: Rethinking assessment for the learning society.** Stud Cont Edu. 2000; 22:151-167.

11. Newble B., Cannon R. **Assessing the Students.** In: A Handbook for Medical Teachers. 4th ed. Dordreht / Boston/London: Kluwer Academic Publishers; 2001: 126-163.

12. Paterra ME. **Survey of Student Assessment of Study Behaviors (SSASB) [homepage on the Internet]. Willamscille; [cited 2011 August 28].** Available from: www.cambridgestraford.com.

13. Revuelta J, Ximénez MC, Olea J. **Psychometric and Psychological Effects of Item Selection and Review on Computerized Testing.** Edu. & Psycho. Meas. 2003; 63(5) : 791-808.

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