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AN EVALUATION OF THE CORRELATION BETWEEN ENGLISH LANGUAGE PROFICIENCY AND STUDENTS' PERFORMANCE IN SCIENCE SUBJECTS AT HIGHER SECONDARY SCHOOL LEVEL IN SINDH

1. **Dr. Roshan Ali Teevno**
Lecturer Government Syed Noor Muhammad Shah Degree College Tharushah, Sindh, Pakistan
teevno@yahoo.com
2. **Dr. Allah Dino Abro**
Assistant Professor, Govt. Higher Secondary School Govt. Ghulam Hidayatullah Hyderabad Sindh, Pakistan
ada2000@live.com
3. **Muhammad Akram**
Subject Specialist, Govt. Higher Secondary School Govt. Ghulam Hidayatullah, Sindh, Pakistan
akram.zai@gmail.com

Abstract

The medium of instructions employed for teaching all science subjects up to secondary level is the indigenous language across all public schools of Sindh, but at higher secondary level the medium of instruction is English. Consequently, students face serious problems in learning science subjects. Realizing the gravity of this problem and its adverse effects on other subjects, an empirical study has been conducted which was aimed at measuring correlation between English language proficiency and students' performance in science subjects. It involves students' and teachers' perceptions to find out whether English is truly an obstacle for students especially in science subjects or not, and if so, then to what extent it is so. The population of the study comprised all the teachers and students of Sindh, which was further delimited to Hyderabad, from which a sample of 500 students and 50 teachers was selected through random stratified sampling technique. The data was collected through survey method and questionnaire instruments. The findings showed that there was strong correlation between English language proficiency of students and their performance in science subjects. There was no significant difference between the perceptions of teachers and students regarding the impact of English proficiency on performance of students in science subjects. Even the performance of students in English and science subjects was alike. It also unfolded that the inadequate English language proficiency was such a gigantic stumbling block for students that demoralized a large number of students so much as to drop out prematurely in their studies. They, who managed to overcome this hindrance, get through the exams with merely passing marks or by re-sitting some supplementary exams. Result indicated that this problem was even graver for rural students compared to urban ones. It is suggested that time and energies allocated to improving students' language proficiency ought to be improved both quantitatively and qualitatively and students should be given leverage to write down their answers partly in English and partly in native language.

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Key Words: Language proficiency, science subjects, Students' performance, perceptions of teachers and students

1. Introduction

English Language Proficiency refers to the ability of students to use the language for developing a meaning or sense and communicating it in spoken and written contexts to their audience. Kaliyadan, Thalamkandathil, Parupalli, Amin, Balaha and Ali (2015) describe that "English language proficiency is an important factor in determining academic performance of students" (p. 140). Ramsay, Barker and Jones (1999) and Selvadurai (1998) also affirm that students with poor English proficiency may not understand the lectures delivered in English. Moreover, due to their poor English proficiency, the students will not be capable of interacting with their teachers or ask question in the class where medium of instruction is English. Consequently, their performance in the particular subject will also be poor.

In Pakistan, the question as to which language should be used as the medium of instruction still persists as point of argument, particularly in the context of Sindh. Since the inception of Pakistan, it has remained an concluded debate whether English should be regularized as medium of instruction or the local language in our educational institutions (Rahman, 2006 &Shamim, 2011). So far, this is the local language that is used as the medium of instructions and examinations from primary up to secondary level. Even the textbooks taught in government schools are in local language in almost all the public schools of Sindh. In the way forward, as these students come forward to higher secondary levels, they confront with English as medium of instructions and examinations for learning all the subjects including science subjects such as: Physics, Chemistry, Math or Biology. The textbooks of all these subjects are in English which result in a serious problem for these undergraduates. The limited knowledge of English language actually makes it hard for the learners to comprehend the text contained in their course books of science subjects. As such, the flawed and inadequate understanding of scientific concepts on part of students eventually reduces their ability to analyze, build on or express these concepts effectively and in the result learners are unable to get desired results.

There is a bulk of empirical studies indicating that English proficiency plays a vital role for students in pursuance of their studies in English-medium institutions, especially for those students whose first language is not English (Li, Chen and Duanmu, 2010 &Wardlow, 1999). Aina, Ogundele and Olanipekun (2013) add that students who struggle with their communication skills in English language are very unlikely to function effectively, both in English language as well as in other academic subjects. If a student increases his knowledge in a particular subject it only helps him improve his results in that very subject. On the other hand, if he strives to improve his competency in English, it helps him improve upon all the subjects, for all their concepts and skills are in English language.

To sum up, it is high time that our academicians and concerned policy makers to reach some impartial conclusion. Either introduce Urdu- the national language as medium of instruction throughout from primary to graduate and post graduate level or regularize English as medium of instruction in true spirit from primary through post-graduate level. This study is aimed at exploring whether this sudden emergence of English language as medium of

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instruction affects students' performance in science subjects. It will provide sound basis for the concerned officials to shape up their perspective and remove the long-standing barrier of language in our educational scenario.

2. Objectives

1. To evaluate the relationship between English proficiency and students' performance in science subjects at higher secondary school level in Sindh.
2. To compare the performance of students in English subject and science subjects at higher secondary school level in Sindh.
3. To appraise the perceptions of teachers and students pertaining to English proficiency of students at higher secondary school level in Sindh.

3. Research Questions

1. To what extent English proficiency of students is correlated to their performance in science subjects at higher secondary school level in Sindh?
2. What is the difference between students' performance in English subject and in science subjects at higher secondary school level in Sindh?
3. What is the difference between perceptions of teachers and students regarding English proficiency of students at higher secondary school level in Sindh?

4. Hypothesis

1. There is no significant correlation between English proficiency and students' performance in science subjects at higher secondary school level in Sindh.
2. There is no significant difference between students' performance in English subject and science subjects at higher secondary school level in Sindh.
3. There is no significant difference between the perceptions of teachers and students regarding English proficiency of students at higher secondary school level in Sindh.
4. There is no significant difference between the performance of rural and urban students in science subjects at higher secondary school level in Sindh.
5. There is no significant difference between the performance of male and female students in science subjects at higher secondary school level in Sindh.

5. Literature Review

The language used by teacher in classroom to disseminate knowledge is known as the medium of instruction (Ahmed, Zarif, &Tehseen, 2013). Medium of instruction is one of the most influential factors in an educational context. It plays vital role in the performance of students. If a student who is not sound in English language he is very likely to be equally deficient in other subjects of science such as physics, chemistry, biology or math. English language is the single most predominant element that affects the academic performance of students and its main reason is that English language is used for recording and preserving the research based knowledge of the world. Hence, the password to all that hard earned knowledge related to various educational fields is English language.

The Medium of instruction has continued to prevail as stubborn problem ever since the country has come into existence. The frequent amendment in language policies during the past years indicate the irresolute attitude of various governments that came into power. The height of lethargy and lack of seriousness that they have shown in dealing with this major issue is saddening. According to Khokhar, Memon, Siddique (2016), the government has

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hardly paid any heed to the language policies, in spite of the fact that there is a rich diversity of languages and ethnicity in Pakistan. There have always been two groups out of which one advocates the idea of making mother tongue as Medium of instruction whereas the other opposes to it and propounds reasons for their opposition in this regard.

5.1. Local language should be Medium of instruction

Many experts are of the view that mother language as a medium of instruction plays the role of spinal cord. In this regard Ibn-e-Khaldoon (2001) believes that students can easily and clearly understand the content of the subject in their mother tongue. To educate students by foreign medium of instruction is the half education. He further affirms that it takes years for one to become fairly skilful in a foreign language so a student cannot learn knowledge and foreign language at a time.

Ibn-e-Khaldoon (2001) is of the opinion that a language which is not practicing in society is an artificial cover over human personality. And that the children who are not taught by mother tongue, their creative abilities do not develop. Particularly, when students learn science based concepts and skills, which are quite technical and logical, it becomes fairly challenging for them to imbibe these concepts in foreign language, especially when their linguistic competency is very limited and poor. In such a scenario, students should either be equipped with better language skills during their primary and elementary education, so they may not come across this shocking experience or they should not be imposed with English language in post matriculation phase.

5.2. English should be the Medium of instruction

Some intellectuals have firmly opposed the idea of adopting first language as a medium of instruction. According to their views, mother tongue will create prejudices among provinces. In our country where such forces are already in strength and miss no opportunity to give rise to disputes and discriminations, the idea of using local language as Medium of instruction will add fuel to such elements. Our country is already divided into two parts. We are not in a position to engage with any such inauspicious incidents especially owing to language disparity. It is empirically proven that regional languages culminate national integrity. In this regard Kiranmayi and Celta (2010) suggest that if the institutions do not adopt one common Medium of instruction, it will create an element of biasness among the regions and provinces, and will ultimately produce regionally minded educated elite. This ultimately weakens the political unity of the country and may even affect its cultural future. Moreover, such boundaries will confine the activities of the intellectuals of different regions merely to their respective regions and their relations with scholars beyond provincial and national boundaries will come to an end.

Woodrow (2006) describes that it is beyond all doubts that English is extremely important for the better academic achievements of learners, particularly for those who are acquiring education at tertiary level since a large proportion of knowledge related to their field of studies is written in English. Li, Chen and Duanmu (2010) and Wardlow (1999) giving the reference of several research findings show that English proficiency serves as the key to all the academic locks for international students in completing their studies in English-medium institutions, particularly for those whose first language is other than English.

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6. Methodology

Fink (1995), DeMarraiss and Lapan (2004), Gray (2004), Neuman (2007) and Creswell (2008) have confirmed that survey research is more accurate, consistent, flexible and reliable. The researchers mostly prefer to use survey method in their studies to build theories, identify gaps, suggest solution to the issues and make decisions corresponding to their planning in every nook and corner of the world. The notable point of survey is that the researchers can conduct their study, by choosing a big sample that represents large population, while spending little money, energy and time. Considering the fact that it is vastly applied method in education, it had been adopted in this study. A sample of 50 teachers (25% of target population) and 500 students (10% of target population of students) was selected from the target population (total population of teachers 200 and students 5001). It was delimited to higher secondary schools of rural and urban areas of Hyderabad, through random stratified sampling technique. A closed ended questionnaire was developed and applied for the collection of data from teachers and students regarding English proficiency of students. Its validity was checked with the help of four experts, who had got their doctoral degree in education (three experts) and linguistics (one expert). Also, its reliability (Chron Batch's Alpha) was found 0.75 through SPSS-22 software. In addition to questionnaire, the annual examination result 2015-16 of the sampled students in English and science subjects was obtained from B.I.S.E. Hyderabad for making further comparison of students' performance. Using SPSS-22, the major hypotheses were tested through regression and t-test (parametric statistical tests). Likewise, item analysis was made through non-parametric statistical tests including percentages and chi-square (X2).

7. Results

7.1. Item analysis

Table: 7.1. Item analysis

SN	Items	Sample	SD	D	UD	A	SA	Chi Square	Sig.
1.	The level of English Language competency of higher secondary students is satisfactory.	Students	20.2	38.4	1.8	21.8	17.8	169.480	.00
		Teachers	30.0	46	2	10	12	31.600	.00
2.	Reading skill of students is satisfactory.	Students	26.4	41.8	0.4	22.4	9.0	256.780	.00
		Teachers	38	32	4	10	16	21.000	.00
3.	Students often enjoy the activity of reading the textbook.	Students	70.6	16.8	.6	8.0	4.0	836.740	.00
		Teachers	12	72	0	8	8	59.120	.00
4.	Students of HSS are capable to read the text fluently.	Students	25.6	33.8	1.2	23.0	16.4	149.300	.00
		Teachers	24	60	8	6	2	57.000	.00
5.	Students of HSS pronounce the words accurately.	Students	38.4	23.6	1.0	14.4	22.6	187.660	.00
		Teachers	6	54	8	30	2	48.000	.00
6.	Students use English tone (intonation) while reading the text.	Students	45.2	19.6	1.2	19.6	14.4	255.040	.00
		Teachers	6	78	2	4	10	106.000	.00
7.	The vocabulary of students is	Students	15.0	23.0	.6	37.4	24.0	182.280	.00

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	satisfactory.	Teachers	68	8	4	12	8	72.800	.00
8.	Reading comprehension of students is satisfactory.	Students	22.2	39.2	1.0	19.8	17.8	184.840	.00
		Teachers	4	60	8	20	8	53.600	.00
9.	Students know the art of Skimming.	Students	39.2	41.6	1.0	13.0	5.2	366.060	.00
		Teachers	18	58	16	6	2	49.600	.00
10.	Students know the art of Scanning.	Students	14.4	43.8	3.4	20.8	17.6	219.940	.00
		Teachers	18	66	8	6	2	69.600	.00
11.	Students know the art of intensive reading.	Students	37.8	24.8	2.2	10.4	24.8	192.980	.00
		Teachers	18	66	6	6	4	69.200	.00
12.	Students know the art of extensive reading.	Students	39.8	41.6	2.6	3.0	13.0	374.840	.00
		Teachers	24	46	2	24	4	32.200	.00
13.	Writing skills of students are satisfactory.	Students	20.2	47.2	1.4	17.6	13.6	283.140	.00
		Teachers	56	12	4	18	10	43.000	.00
14.	Students are capable to write long sentences accurately.	Students	13.8	26.8	.8	27.4	31.2	158.380	.00
		Teachers	16	12	8	62	2	57.800	.00
15.	Students are capable to write paragraphs accurately.	Students	35.0	25.6	.4	12.0	27.0	188.380	.00
		Teachers	54	14	2	8	22	41.600	.00
16.	Students are capable to summarize the lesson.	Students	48.0	16.8	.8	24.4	10.0	320.560	.00
		Teachers	16	62	2	12	8	57.800	.00
17.	Students are capable to write precise.	Students	28.8	44.4	1.2	12.0	13.6	282.800	.00
		Teachers	6	74	4	2	14	93.200	.00
18.	The students often write correct spelling of words.	Students	21.0	46.4	3.6	16.6	12.4	259.060	.00
		Teachers	6	78	0	14	2	76.400	.00
19.	Students are capable to expand an idea.	Students	44.4	16.4	1.8	14.2	23.2	245.860	.00
		Teachers	12	72	2	6	8	85.800	.00
20.	Students know the rules and regulations of grammar.	Students	32.8	39.0	1.2	18.0	9.0	250.820	.00
		Teachers	90	6	2	0	2	112.880	.00
21.	Speaking skill of students is satisfactory.	Students	21.4	53.0	1.4	14.8	9.4	394.080	.00
		Teachers	18	72	2	2	6	88.800	.00
22.	The students are capable to ask questions from teachers in English.	Students	30.0	38.4	.8	20.4	10.4	224.880	.00
		Teachers	12	78	2	2	6	106.800	.00
23.	The students are capable to reply the questions of teachers in English.	Students	37.2	41.2	4.8	10.4	6.4	313.360	.00
		Teachers	12	12	6	68	2	73.800	.00
24.	The students are capable to discuss any lesson in English.	Students	31.8	48.2	4.0	10.0	6.0	371.620	.00
		Teachers	54	6	0	24	16	25.680	.00
25.	The students are capable to express their idea in English.	Students	38.2	41.4	.4	11.0	9. 0	343.840	.00
		Teachers	18	74	0	6	2	66.800	.00
26.	Students speak grammatically correct sentences.	Students	39.2	54.2	1.0	3.4	2.2	622.920	.00
		Teachers	12	72	0	14	2	60.560	.00
27.	Listening skill of students is	Students	40.6	38.4	3.2	15.2	2.6	342.740	.00

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	satisfactory.	Teachers	2	74	6	12	6	92.400	.00
28.	Teachers mostly deliver the lectures in English language.	Students	22.0	37.2	1.0	27.6	12.2	194.860	.00
		Teachers	16	4	2	72	6	87.400	.00
29.	Students often understand the questions asked in English.	Students	6.0	7.6	.8	53.2	32.4	493.600	.00
		Teachers	0	26	4	56	14	30.480	.00
30.	Students are capable to understand the instructions given by the teachers in English	Students	5.4	22.0	1.6	59.0	12	535.180	.00
		Teachers	8	68	0	6	18	50.960	.00

Analysis: Referring to table 7.1.1., the value of Chi-Square (X2) is significant for teachers and students at df: 4 and alpha: 0.05. Hence, the null hypothesis is rejected and alternative hypothesis is accepted, concluding that:

1. The level of English Language competency of higher secondary students is not satisfactory.
2. Reading skill of students is not satisfactory.
3. Students do not enjoy the activity of reading the textbook.
4. Students are not capable to read the text fluently.
5. Students do not pronounce the words accurately.
6. Students use English tone while reading the text.
7. The students believe that their vocabulary is satisfactory whereas the teachers' view point is quite contrary.
8. Reading comprehension of students is not satisfactory.
9. Students do not know the art of Skimming.
10. Students do not know the art of Scanning.
11. Students do not know the art of intensive reading.
12. Students do not know the art of extensive reading.
13. Writing skill of students is not satisfactory.
14. Students are not capable to write long sentences accurately.
15. Students are not capable to write paragraphs accurately.
16. Students are not capable to summarize the lesson.
17. Students are not capable to write precise.
18. The students do not write correct spelling of words.
19. Students are not capable to expand an idea.
20. Students do not know the rules and regulations of grammar.
21. Speaking skill of students is not satisfactory.
22. The students are not capable to ask questions from teachers in English.
23. The teachers believe that they are capable to reply the questions of teachers in English whereas the students view point is quite contrary.
24. The students are not capable to discuss any lesson in English.
25. The students are not capable to express their idea in English.
26. Students do not speak grammatically correct sentences.
27. Listening skill of students is not satisfactory.

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28. The teachers believe that they mostly deliver the lectures in English language whereas students have view point quite contrary.
29. Students often understand the questions asked in English.
30. The students believe that they are not capable to understand the instructions given by the teachers in English whereas the teachers' view point is quite contrary.

7.2. Testing major hypotheses

7.2.1. Hypothesis one: There is no significant correlation between English proficiency and students' performance in science subjects at higher secondary school level in Sindh.

Table: 7.2.1. Testing hypothesis one

Model Summary		R	R^2	Adjusted R	Std. Error of Estimate	Change Statistics				
						R Square Change	F Change	df1	df2	Sig.
	Teachers' Model	.693	.480	.469	.83330	.480	44.282	1	48	.000
	Students' Model	.853	.728	.727	.463	.728	1333.168	1	498	.000
				Sum of Squares		Mean Square		df	F	Sig.
ANNOVA	Teachers' Model	Regression		30.749		30.75		1	44.282	.000
		Residual		33.331		.694		48		
		Total		64.080				49		
	Students' Model	Regression		286.121		286.121		1	1333.168	.000
		Residual		106.879		.215		498		
		Total		393.000				499		
Coefficient				Un-standardized Coefficients			Standardized Coefficients		t	Sig.
				B		Std. Error	Beta			
	Teachers' Model	(Constant)		.801		.536			1.496	141
		English proficiency		1.432		.215	.693		6.654	.000
	Students' Model	(Constant)		1.082		.067			16.135	.000
		English proficiency		.642		.020	.820		31.978	.000

Analysis: Referring to table 7.2.1., the result indicates that English proficiency (independent variable) and performance of learners in science subjects (dependent variable) are significantly (students: p=000, r=0.853 and teacher: p=000, r=0.693) correlated. Moreover, English proficiency, being strong predictor variable, contributes 72.8% (students) and 48% (teachers) of variance on students' performance in science subjects. The significant F value (students: F=1333.168, p=000 and teachers: F=44.282, p=000) also confirms that model is fit to make prediction. Additionally, the significant t value (students: t = 31.978 p=000 and teachers: t = 6.654 p=000) also makes it clear that students' performance in science subject will change with change in English proficiency. Hence, null hypothesis is rejected and it is concluded that English proficiency (independent variable) is significantly correlated to

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students' performance in science subjects (dependent variable). An improvement in English proficiency of students leads to better performance of students in science subjects.

7.2.2. Hypothesis two: There is no significant difference between students' performance in English subject and science subjects at higher secondary school level in Sindh.

Table: 7.2.2. Testing hypothesis two

Students' performance		t-test for Equality of Means				
		t	Df	Sig.	Mean df.	Std. error df.
	Equal variances assumed	.234	498	.815	.019	.080
	Equal variances not assumed	.242	494.786	.809	.019	.078

Analysis: Referring to t-test table 7.2.2., the result is insignificant ($p = .815 \geq .05$, $\beta = .234$) and null hypothesis is upheld. Hence, it is concluded that there is no significant difference between students' performance in English subject and science subjects at higher secondary school level in Sindh.

7.2.3. Hypothesis three: There is no significant difference between the perceptions of teachers and students regarding English proficiency of students at higher secondary school level in Sindh.

Table: 7.2.3. Testing hypothesis three

English proficiency		t-test for Equality of Means				
		T	Df	Sig.	Mean df.	Std. error df.
	Equal variances assumed	-1.455	548	.146	-.300	.206
	Equal variances not assumed	-1.032	53.242	.307	-.300	.291

Analysis: Referring to t-test table 7.2.3., the result is insignificant ($p = .146 \geq .05$, $\beta = -1.455$) and null hypothesis is upheld. Hence, it is concluded that there is no significant difference between the perceptions of teachers and students regarding English proficiency at higher secondary school level in Sindh.

7.2.4. Hypothesis four: There is no significant difference between performance of rural and urban students in science subjects at higher secondary school level in Sindh.

Table: 7.2.4. Testing hypothesis four

Performance in Science subjects	Rural and urban area	t-test for Equality of Means				
		t	df	Sig.	Mean df.	Std. error df.
	Equal variances assumed	-25.641	498	.000	-1.348	.053
	Equal variances not assumed	-26.228	495.855	.000	-1.348	.051

Analysis: Referring to t-test table 7.2.4., result of t-test is significant ($p = 000 \leq .05$, $\beta = 25.641$) and null hypothesis is rejected. Therefore, it is concluded that there is a significant difference between rural and urban area students in regard to their performance in science subjects at higher secondary school level in Sindh. Furthermore, the performance of urban

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area students (n= 219, mean score performance= 68%) was better than rural area students (n= 281, mean score performance= 40%).

7.2.5. Hypothesis five: There is no significant difference between the performance of male and female students in science subjects at higher secondary school level in Sindh.

Table: 7.2.5. Testing hypothesis five

Performance in Science subjects	Male and female	t-test for Equality of Means				
		t	df	Sig.	Mean df.	Std. error df.
	Equal variances assumed	-30.002	498	.000	-1.453	.048
	Equal variances not assumed	-30.074	427.468	.000	-1.453	.048

Analysis: Referring to t-test table 7.2.5., the result is significant ($p = 000 \leq .05$, $\beta = 30.002$) and null hypothesis is rejected. Hence, it is concluded that there is significant difference between male and female students regarding their performance in science subjects at higher secondary school level in Sindh. Moreover, the performance of female students (n= 199, mean score of performance= 62%) was better than male students (n= 301, mean score of performance= 51%).

8. Discussion

The basic objective of the study was an evaluation of the correlation between English language proficiency and students' performance in science subjects at higher secondary school level in Sindh. The findings reveal that there was a significant correlation (students: p=000, r=0.853 and teacher: p=000, r=0.693) between English language proficiency and students' performance in science subjects. The performance of students in English and science subjects was not significantly different. Similarly, the perceptions of teachers and students regarding English competency of learners were also alike. Moreover, the female students performed better than male students in science subjects. Likewise, the performance of urban area students was also found to be better than rural area students.

However, the item analysis reveals that the performance of students in English and science subject was not up to the mark. Average score of students in English subject was only 47%, whereas in science subject it was 51%. Inadequate English competency was found as the major cause of students' poor performance in science subjects. The teachers and students were not satisfied with students' skills of reading, writing, speaking and listening. To them, the vocabulary and reading comprehension of students was not admirable. The students were found to be incapable of reading the text fluently, pronouncing the words accurately, using English tone and grammar correctly, spelling the words, constructing long sentences, writing paragraphs, precise and summary accurately. They were found to be inefficient in discussing a topic or expressing their ideas appropriately in English. The art of skimming, scanning, intensive and extensive reading on the part of students was not praiseworthy. The teachers and students were equally divided on some items such as whether or not the students had been capable to answer the questions of teachers in English, whether or not the teachers had delivered the lectures in English language, and whether or not students had been capable to understand the instructions given by the teachers in English.

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There were different reasons for students' dismal performance in science subjects but medium of instruction was found to be the major reason among them. The students were being taught in local or national language up to class X but in class XI the medium of instruction was shifted to English. The students with weak English competency were incapable to understand the science books and lectures in English properly. Moreover, they also were incapable to express their ideas related to science subjects in English. Owing to the barrier of English, students tried to memorize the questions and answers in order to pass the examination. Those students who had better English proficiency or better memorization power produced better results but the majority of students with inadequate English skills and memorization could not produce desired results.

In addition, the majority of students were not regular and punctual in most of the schools. The poor attendance of students was a crucial cause of students' inadequate competency in English. When the students were sure that they would not be dropped out whether they attend classes or not, they would prefer to avail the shortcuts rather than come to school regularly and work hard. Such students with inadequate English competency had been given admissions in upper classes. In this regard, the teachers pointed out that most of the students, enrolled in higher secondary schools, had very weak English proficiency. It was very difficult for them to teach such students who not only had weak English skills but also were irregular and unpunctual. Nonresponsive behavior of parents had also increased the miseries of teachers in this regard and declined the quality of English proficiency. The teachers, being under the burden of the lengthy syllabus and in pressure of following the scheme of studies, had to compromise on the quality of education and prefer to complete the course. Hence they focused on getting the fair copies of students completed for examination purpose. In most of the higher secondary schools, "the quantity of education" had been at the expense of "the quality of education". Moreover, the depressing level of English of the science teachers in most of higher secondary schools also declined the performance of students in science and English subjects.

9. Conclusion

English proficiency and performance of learners in science subjects were significantly correlated. An improvement in English proficiency would lead to improvement in science subjects. The performance of students in science subjects and English subject was also alike. The students, who performed admirably in English subject, had performed commendably in science subjects too. Similarly, the poor performance of students in English subject was reflected in science subjects as well. Moreover, the performance of female students was better than female students in science subjects. Likewise the performance of urbanized learners was found to be better than that of rural area learners. However, the teachers and students were not satisfied with the level of English proficiency of learners. The students were not up to the mark in fundamental English language skills which entailed reading, writing, speaking and listening. Consequently, their performance in science subjects remained underachieved thus far.

10. Suggestion

1. The medium of instruction should be uniformed (either English or local language) from class-I through postgraduate level.

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2. Students' admission to class XI should be conditioned on a pre-entry test.
3. The 80% attendance of students should be made as mandatory for them. The students with less attendance should not be allowed to appear in the examination.
4. The provision of English and science teachers in all schools should be ensured.
5. Rather than completing course from examination point of view, more focus should be given to development of four main skills of the language: reading, listening, writing and speaking.
6. The parents should be motivated to take part in the education of their children.
7. The teachers should be given the leverage that they are not pushed to compromise on the quality of education in pursuance of completing the lengthy syllabus.
8. The schools should be closely watched over that they may not admit ghost students or students beyond the capacity available so as to show on the documents.
9. Teachers and students should be sensitized to the pros and cons of using local or foreign language as medium of instructions and then a fair survey should be conducted to base the decision regarding medium of instruction in Sindh.

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