

Medium of Instruction and Student Performance

HAMID HANEEF

BS scholar, BUIITEMS

Quetta, Pakistan

SYED NISAR AHMED

Visiting Faculty Member, BUIITEMS

Quetta, Pakistan

Abstract:

The core objective of the study is to evaluate the importance of language and performance of students. In order to examine the data primary statistics collection technique, that is questionnaire, was used. Questionnaire was distributed to 100 subjects. The results of the study discovered that the medium of instruction is the key tool to enhance student performances and exposed that the student performances are dependent on mode of instruction. As the performance is dependent on the language in education system it also revealed us that the common and first language greatly increases the performance. The study clarifies the reason of low performance of student in bi or multilingual education systems. The importance of native languages is determined by the study.

Key words: Medium of instruction, Language of instruction, Education and Student Performance.

Introduction:

Medium of instruction of instruction for the student in educational system is variable throughout the world. A rough estimate shows that about 6000 languages are spoken in the world. Today in Pakistan almost 9 languages are spoken, other than the two official languages, Urdu and English (Gordon,

Raymond 2005). This complex bilingual society leads us to search for the effects of student performance in Pakistan.

Student performance is low enough just because of the bilingual system. Most of the students have to speak at least two languages. One is mother tongue and the other is the official national language. In both cases, study skills are down in students due to the knowledge of two languages. Students have to perform in different languages and this is very difficult and time consuming. Time is wasted in understanding and translating the same data into different languages.

The language used by the teacher / instructor are different languages used in institutes. Due to the multilingual system of instruction, huge misconceptions occur. The instruction in a language which is not understandable by the student causes time consuming translation. From a teacher's point of view, language used in schools and universities is English, which not understandable by most of students, and that's why bilingual education appears.

They do not understand interconnections between elements, concentrating learning not on the meanings, but on the effects of what is learned (Matron & Saljo 1976). Students are unable to understand the meaning of English lessons. They do not understand what have been taught to them. Due to the lack of English language learning, students show great difficulty in understanding.

Educational systems using different languages is very much common, that's why education is not perfect. Educational institutes try to use English in schools but it causes different problems for their student performances and their behavior. Student learning is very much affected by the medium of instruction and languages. In the case of low understanding of other languages, different language proficiency institutes are available for students. For international students, language courses are available to create standard of second language.

This study would help the teachers and educational

policy makers for better understanding of importance of language for students. This will help to decide the better medium of instruction and also to increase the performance of students.

Literature review

Medium of Instruction: Definition.

Medium of instruction is language. Teacher/communicator use language for efficient transfer of information to learner/listener. In the educational system the mode of language necessarily is same as the learner to increase the amount of impact of knowledge. It may not be the national or first language of student. Method and the medium of instruction are selected by the teacher to support meaning and concept of the topic.

Johnson (in preparation) debates that the student with poor grasp of English (in his view) does not understand the meaning of script. Brock-Utne (2001) states that English remains to be a second language however only 0.8 % of total people speak it as their mother tongue. Harlech Jones (2001) argues the problem of the proposal of English as the official language whereas the UNIN's booklets say local language is equivalent and should be conserved. Krashen (1991) declares that one of the most significant features of multilingual education platform is the use of first language as medium of instruction. Harlech Jones (2001) states that it helps the learner in easy transmission of knowledge. Mitchell & Myles (1998) say that a comprehensible and context able second language data is necessary for learning.

Student Learning: Definition.

Evaluation and measure of student success/ learning that are laborious and analogous across schools. Darling- Hannod (2004) accountability is not only about calculating learner learning but essentially improving it. Magones and Glaser (2002) perceived

that presentation calculation permits all student particularly those with different language background to involve in cognitively difficult activities such as generating plans observing work, evaluating work. As Linn and Burton (1994) have showed, performance assessment have requested as assessment that redirects good instructional activity.

Abedi et al. (2010) claimed that it is more important to slow down student learning and make analysis of text difficulty.

Linkage:

Language proficiency level is related with presentation on content-based valuations. Enactment on content-based valuations may be confused with English language proficiency level. Biggs & Telfer (1987) encourage acknowledgments of rights and self-efficacy and learner activity rather than inactivity, boosts unfathomable learning. Aguirre-Munoz et al. (2006) evaluate student inscription and expose that students regularly lack understanding of projected language use in presentation academic responsibilities. According to Biggs (1989) the ideas of “apparent” and “deep” take on a dissimilar importance across traditional groups.

MI and SL are positively correlated which shows that the result is highly significant, H₀.

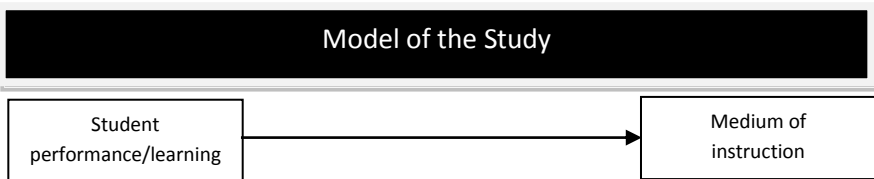
MI and SL are not positively correlated which shows that the result is highly significant, H₁

Methodology:

The method used for the study includes the 100 participants – addressed questionnaire. These questionnaires were distributed among the students and teachers. The response rate was 100% from all the respondents. Respondents were the employees of BUITEMS and self-administered students of university. The questionnaire contained 10 questions. 5 of the items were related to medium of instruction and other 5 were student

performance. One of the questions was taken from the study of Krashen (1991) which declares that one of the most significant features of multilingual education platform is the use of first language as medium of instruction. One question was from the study of Mitchell & Myles (1998) which say that a comprehensible and context able second language data is necessary for learning. One question was from the studies of Abedi et al. (2010) which is about slowing down student and making analysis of text difficulty.

The values are shown in the correlation metrics below. To test the hypothesis, regression and correlation analysis were used.



		Frequency	%age
Gender	Male	89	89%
	Female	11	11%
Age	20-29	98%	98%
	30-39	1	1%
	40-49	1	1%
Education	Bachelors	98	98%
	Masters	1	1%
	M.Phil.	0	0
	Ph.D.	1	1%
Experience	1-4	97	97%
	5-9	1	1%
	10 & above	2	2%

Table: 1: Demographics

Results and discussion:

1. Correlation Analysis:

The correlation between two of the variables which are medium of instruction and student performance was calculated and the result is shown in correlation matrix below. As the result of

calculations, both of variables are highly interconnected. In the correlation matrix below, variables are abbreviated as medium of instruction “MI” and student performance/ learning “SL”. Analysis procedure, calculation and results are as under in Table 2.

Correlations											
		MI1	MI2	MI3	MI4	MI5	SL1	SL2	SL3	SL4	SL5
MI1	Pearson Correlation	1	.545**	.322**	.149	.330**	.366**	.132	.448**	.360**	.204*
	Sig. (2-tailed)		.000	.001	.140	.001	.000	.191	.000	.000	.041
	N	100	100	100	100	100	100	100	100	100	100
MI2	Pearson Correlation	.545**	1	.428**	.223*	.304**	.185	.188	.327**	.370**	.256*
	Sig. (2-tailed)	.000		.000	.025	.002	.066	.061	.001	.000	.010
	N	100	100	100	100	100	100	100	100	100	100
MI3	Pearson Correlation	.322**	.428**	1	.267**	.078	.154	.036	.348**	.336**	.172
	Sig. (2-tailed)	.001	.000		.007	.443	.125	.721	.000	.001	.086
	N	100	100	100	100	100	100	100	100	100	100
MI4	Pearson Correlation	.149	.223*	.267**	1	.304**	.194	.115	.245*	.120	.220*
	Sig. (2-tailed)	.140	.025	.007		.002	.053	.255	.014	.234	.028
	N	100	100	100	100	100	100	100	100	100	100
MI5	Pearson Correlation	.330**	.304**	.078	.304**	1	.490**	.146	.161	.210*	.350**
	Sig. (2-tailed)	.001	.002	.443	.002		.000	.147	.109	.036	.000
	N	100	100	100	100	100	100	100	100	100	100
SL1	Pearson Correlation	.366**	.185	.154	.194	.490**	1	.461**	.247*	.291**	.422**
	Sig. (2-tailed)	.000	.066	.125	.053	.000		.000	.013	.003	.000
	N	100	100	100	100	100	100	100	100	100	100
SL2	Pearson Correlation	.132	.188	.036	.115	.146	.461**	1	.123	.193	.244*

	Sig. (2-tailed)	.191	.061	.721	.255	.147	.000		.224	.055	.015
	N	100	100	100	100	100	100	100	100	100	100
SL3	Pearson Correlation	.448**	.327**	.348**	.245*	.161	.247*	.123	1	.537**	.468**
	Sig. (2-tailed)	.000	.001	.000	.014	.109	.013	.224		.000	.000
	N	100	100	100	100	100	100	100	100	100	100
SL4	Pearson Correlation	.360**	.370**	.336**	.120	.210*	.291**	.193	.537**	1	.401**
	Sig. (2-tailed)	.000	.000	.001	.234	.036	.003	.055	.000		.000
	N	100	100	100	100	100	100	100	100	100	100
SL5	Pearson Correlation	.204*	.256*	.172	.220*	.350**	.422**	.244*	.468**	.401**	1
	Sig. (2-tailed)	.041	.010	.086	.028	.000	.000	.015	.000	.000	
	N	100	100	100	100	100	100	100	100	100	100
**. Correlation is significant at the 0.01 level (2-tailed).											
*. Correlation is significant at the 0.05 level (2-tailed).											

Table 2: Correlation Matrix

Correlations			
		SL	MI
SL	Pearson Correlation	1	.536**
	Sig. (2-tailed)		.000
	N	100	100
MI	Pearson Correlation	.536**	1
	Sig. (2-tailed)	.000	
	N	100	100
**. Correlation is significant at the 0.01 level (2-tailed).			

Table 2 indicated the correlation matrix. From the table correlation matrix, mean of the values is shown. The results from the table are positive, which is significant to 0.00.

2. Regression Analysis:

To test the proposition of the study, regression analysis was used in the third step. In order to examine the H_0 and H_1 of the study, regression was run with medium of instruction and student learning as dependent variable, the results of which being as follows:

<i>Variables</i>	<i>B</i>	<i>t-stat</i>	<i>Significance</i>
<i>MI</i>	0.335*	5.238	0.000
<i>SL</i>	0.092**	6.082	0.000
R square = 28.7 %		Adjusted R square = 28.0%	

Table: 3: Regression Analysis

The overhead table exposes that the coefficient of medium of instruction is 0.335 which is positive and highly significant at 0.00 level of significance. The coefficient of student learnings is also found to be positive and significant ($\beta = 0.092$ at sig = 0.000). The t-stats of medium of instruction and student learning are 5.238 and 6.082 respectively which also displays that the result is highly significant. The overall fit of the model is 28.7% (adjusted R square = 28%).

To test the H_1 of the study, moderated regression was used to see the effect of medium of instruction. Regression analysis was run by entering the medium of instruction. In the second step, student learning was entered to see their combined effect whereas interaction term was added in the third step in the model.

Recommendations and particle implications:

Following are the recommendations drawn from the results of this study.

- Language brought the great effects on performance and must be considered in evaluating the student results.
- Language selection in public institutes must be chosen by the teacher to support the concept of topic.
- Student with the second language must be given special

classes to improve the language skills.

- First language must be selected as the basic language for educational system. From the start of education, English should be included in courses of study.
- The importance of local and minor languages also arises from the search which concludes that the local and minor languages should be preserved in all manner of verbal, reading and writing.
- For the increment of student performances a common language should be used in all educational institutes. Use of other languages during the classes should be avoided. For second language class student should be provided with proper environment of that language.
- Students should be given tasks about other languages like presentation, assignments and other tasks.
- Student should be prepared to develop the skills of listening, speaking, reading and writing in other language programs.
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Limitations and future research:

In the study, some limits are also included. The major limitation is low data filled by the subjects. The number of questions in this questionnaire was only 10. Future research is directed to have more questions in questionnaire for better and more accurate results.

The other limitation is the sample size. Samples are distributed among 100 subjects only. This sample rate is not enough for the larger decision making authorities. Future search should be considered to have larger sample rate so that more data should be collected from the subjects.

Experienced persons is also a limitation in this study. Only 1-4 year experience subjects have taken part in this study. More experience would reveal better research results.

A limitation in this is gender, a very low frequency of

female have attempted to answer the questionnaire. For the future research there should be an equal percentage of male and female.

Lastly, the data was taken from different sources of Pakistan and abroad. The data include the journals, research papers, reports and books. Future research should be conducted on language and its relation to performances of students.

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