

Effects of Change in Medium of Instruction on Academic Achievement of Students: A Qualitative Approach

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Abstract

The present research was conducted to investigate the effects of change in the medium of instruction on the academic achievement of students. A total number of 50 students (25=males, 25=females) were recruited from seventeen (17) different departments of Punjab University. It was investigated that either change in the medium of instruction affects academic achievement of students. Survey method was used as a procedure for data collection. A self- developed structured open ended questionnaire comprising was used in order to get responses of the students regarding change in the medium of instruction. Academic achievement was measured by marks obtained in last and recent exams. Content analysis was carried out to analyze the responses. Frequencies showed that the change in the medium of instruction has an impact on students' academic achievement. Other factors which affect the students' academic achievement those are level of satisfaction, role of teachers and less proficiency in English. Many previous studies are consisted with the findings of present research. These findings have implications for educational institutions, so that timely counseling could be provided to the students for effective coping with these problems.

Key words: Medium of instruction, academic achievement

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Introduction

Language is the medium of instruction which used in imparting instruction in any subject at any level. The medium of instruction is a controversial issue at all levels, especially in the societies in which various systems of education are followed (Nisar, & Ahmad, 2011).

Medium of instruction has a very crucial role in transforming education and making it easy or difficult for a student. Language is an important aspect of culture. It is an important tool through which transformation of cultural values, old and new, is made easier. An individual develops his personality in the context of his own cultural patterns, including languages; of course, a major part of the socialization process consists of 'learning' (Cuber, 1959). Academic achievement denotes to specific learning in a specific setting or to be determined by achievement test scores and teacher given grades and percentage in academic achievement (Kennedy, 1975).

In general, there are many factors which determine student's academic success. Language is also one of them, which affects the performance of students. According to Arshad (1997), language has considerable importance that affects education in many countries. After more than six decades of independence, Pakistan and India are still involved in the issue of medium of instruction with Urdu and English dominating at the present time. The medium of instruction is controversy in Pakistan continues and can be viewed as a power struggle between different pressure groups or the elites and the pro-elites (Rahman, 1999).

Pakistan is a multilingual country and now at this time there are two parallel mediums of instruction in Pakistan:

1. Urdu medium
2. English medium

Today in every province of Pakistan, there are various languages which are used at various levels. Firstly, each province has its own regional language which is used as the language of everyday communication; and in school level Urdu is used as the language of instruction. English is used as a language of official business and the language of instruction in higher education (Muhammad, 2009).

Many research works have been done in this respect globally as well as indigenously. In most of the researches, it is found that students are facing problems with respect to the medium of instruction. More recent research findings indicate the ineffectiveness of using English as the medium of instruction and the difficulties encountered by the students. Most of the researches in this regard have been done in Hong Kong because Hong Kong is also still in the controversy of language in their education system.

The studies conducted in Hong Kong indicate that the change in language policy has had a significant negative effect on the size of academic vocabulary of Hong Kong tertiary students (Lin & Morrison, 2010). Another finding concluded by Marsh, Hau and Kong (2006) that instruction in a second language (English rather than Chinese) had substantial negative effects on both academic self-concept and academic achievement. The present research will investigate the effects, difficulties regarding language and its impact on their grades. The present study will have important implications in educational discipline. By evaluating the effects of change in the medium of instruction, we can formulate suggestions for the educational institutions to remove the problems in order to enhance academic achievement of the students. In the light of the above discussion following research questions were formulated.

- Q1: Does the change in the medium of instruction has an impact on students' academic achievement?
- Q2: Does the level of satisfaction of students make any difference in the academic achievement of students?
- Q3: Does cooperation from teachers positively influence the academic achievement of students?
- Q4: Does confidence of students, enhance academic achievement of students?
- Q5: Do previous English skills affect academic achievement of students?
- Q6: Is living in the hostel affect academic achievement of students?

Method

Participants

A total number of 50 students (25 male, 25 female) were selected from 17 different departments of Punjab University. A non probability purposive sampling was used selected on the basis of following inclusion exclusion criteria.

Inclusion/Exclusion Criteria

Those students who met the following inclusion criteria were included in the study. Students included whose medium of instruction was changed from Urdu to English, were studying in semester system, were in Semester I of M.Sc and B. Sc level, both Morning and Replica classes and also both the genders. Those students were excluded, whose medium of instruction was not changed, we're studying other than semester system and, other than the semester I and also higher than the master level.

Assessment Measures

Following measures were used for the purpose of assessment:

Demographic information questionnaire: Demographic questionnaire was developed by the researchers and there is included an individual's basic personal information that is gender, age, and educational level, previous medium of instruction, present medium of instruction, residence, previous examination system, present examination system, previous result, and rating of their Urdu and English speaking, reading and writing skills.

Self-developed questionnaire A structured open ended questionnaire was developed by the researcher in order to get information about the problems of students regarding change in the medium of instruction from previous medium of instruction. For developing the questionnaire, previous researches regarding the medium of instruction were searched and important factors which are highlighted in these researches were included in the present questionnaire. A pilot study was also done before finalizing the questionnaire. Views of the students were taken regarding the medium of instruction and then they were incorporated into the questionnaire. Thus, the final questionnaire consisted of fourteen questions and the total time to complete the questionnaire was 15 minutes. Reliability of the scale/ questionnaire was also calculated which was found to be $\alpha=.77$ suggested that the scale was reliable.

Ethical Consideration

To initiate the data collection, prior consent was taken from each participant and also procedure was explained to them. The participants were assured that the information obtained from them will be kept confidential and will not be used for any other purposes. Permission for getting the results of the participants was taken from the authorities of the concerned departments.

Procedure

The topic was formulated after studying the literature on Education. A questionnaire was developed in order to study the problems faced by the students because of a change in the medium of instruction. Those students were approached directly who's medium of instruction was changed from Urdu to English. The data were collected only from the students of semester I before their final exams because they were facing the effects of changing the medium of instruction in higher degree at that time. The semester I results of the participants were taken from the concerned departments after getting permission from the authorities of the concerned departments (letters attached in Appendix A).

Results

Table 1

Demographics Descriptive Study of Variables

Variables	M (SD)	F (%)
Age of participants	20.64(1.17)	
Gender		
Male		25(50.0)
Female		25(50.0)
Education		
F. A		8(16)
B. A		42(84)
Residence of participants:		
Home		8(16)
Hostels		42(84)
Previous medium of instruction:		
Urdu		42(84)
English		3(6)
Bilingual		5(10)
Present medium of instruction:		
Urdu		1(2)
English		49(98)
Bilingual		-
Previous examination system:		
Annual system		49(98)
Semester system		1(2)
Present examination system		
Annual system		-
Semester system		50(100)

Table 2

Frequencies of Responses given by Students Regarding Medium of Instruction

S. No	Responses	F
1	Due to changes in medium of instruction	115
2	Satisfaction	92
3	Co-operation of teachers	52
4	Weak English	52
5	Cannot memorize till basic concepts are not clear	46
6	Unable to understand lectures	38
7	Confidence	33
8	Grammar/ English is good	32
9	Lack of Confidence	28
10	Lack of Co-operation from teachers	17
11	Due to change in examination system	16
12	Passion for study	15
13	Forced to study	14
14	Due to hostels	9

15	Consul dictionary when required	8
16	Attention	8
17	Cannot understand new terms	8
18	Need for help	6
19	Using a dictionary is for better understanding of lectures	5
20	Pessimism	5
21	Lack of attention	5
22	Co-education	5
23	Enhancement in information	4
24	Too much use of dictionary	4
25	Tough English in books	4
26	Cannot understand terms	3
27	Easy English in books	3
28	Fond of speaking English	3
29	Speaking English is not a routine matter	3
30	Difficulty in cramming	3
31	Depends on teachers	3
32	Have to work hard for comprehending the lectures	3
33	Insufficient information	3
34	Consult a dictionary once	1
35	Primarily translate the lectures	1
36	No free time for using dictionary	1
37	Forgetfulness after the lectures	1
38	Everything is new	1

The table indicated the frequencies in descending order, that effect of change in the medium of instruction on the academic achievement of the students. Among these frequencies, the highest frequency is of medium of instruction showing that medium of instruction influence the academic performance of students. The result and the rest of the research questions are further discussed in detail in the discussion chapter.

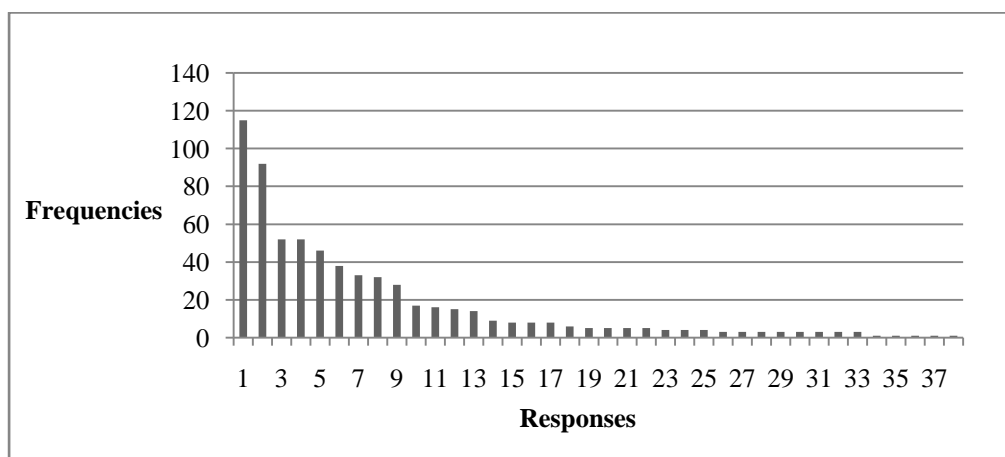


Figure 1: Bar Graph Showing Frequencies of Responses

Bar graph shows the frequencies of responses given by the students that affect their academic achievement. Responses were shown according to the serial no of responses in table 2.

Another additional analysis was run in order to check either their grades is affected by a change in the medium of instruction. Paired sample t- test was carried out to analyze the differences.

Table 3
Differences in the Previous and the Present Results

Variables	M	SD	t	p
Previous results	67.70	5.54	.67	.50
Present results	66.97	6.81		

df = 49, $p > 0.05$

The results indicated that there was no significant difference in academic achievement of students before and after the change in the medium of instruction showing that a change in the medium of instruction does not affect the academic achievement of students.

Discussion

This is an exploratory study which is aimed at exploring the effects of change in the medium of instruction on the academic achievement of students. To investigate it, qualitative approach was used. Through qualitative responses, major factors affecting academic achievement due to changes in the medium of instruction were identified.

The results revealed the responsible factors which effect on academic achievement of the students due to change in the medium of instruction. Maximum frequency (115) is of the factor which is the title of the research itself, that is, due to changes in the medium of instruction. The findings approved the research question. This finding corroborates the findings of previous researchers, who reported similar findings (Sabri, 2007) in which it was concluded that students who were taught in a foreign language (English) had more misconceptions than the students who were taught in their native language (Turkish). The possible explanation of this finding may be that students studied the most of time in a language and at higher levels, if their medium is changed, obvious they will take some time in understanding the language and as a result, their academic achievement might be affected.

The next frequency (92) is that of the level of satisfaction among the students, showing that the medium of instruction does not affect the academic achievement of those students' who are satisfied with themselves that they can cope with the difficulties. Thus, this finding approved the research question. The importance of satisfaction also highlighted in the research of Samdal, Wold and Bronis (1999) in which it was concluded that satisfaction is the most important predictor of students' perception in their academic achievement.

The cooperation of teachers is also an important factor which contributes a lot in the adjustment of students whose medium of instruction is changed. This finding also approved the research question. This finding concurs with the finding of Sanders and Jordan (2000) which showed that positive teacher-student relations enhance academic achievement. Lack of cooperation from the teachers is also a factor which is also identified as a factor influencing academic achievement. The students, who face less cooperation from the teachers side by side with the language problems, also have poor academic achievement. This finding is corroborated by the finding of Adediwura and Tayo (2007). They concluded that students' perception of teachers' knowledge of subject matter, attitude to work and teaching skills has a significant relationship to students' academic performance.

The fourth highest frequency (52) shows that students have less proficiency in English therefore change in the medium of instruction have an impact on students' academic achievement whose English is weak as compared to those who have command or better in English. Thus, it approved the research question. Findings of Andrade (2006) and Bataineh (2007) in this discipline are consistent with the present finding. They found that achievement is affected by English proficiency.

The seventh factor is confidence. The students who have confidence in their abilities and also have a firm belief in God deal with a better way with the difficulties produced by the language change at higher levels as compared to those who have less or no confidence.

The next frequency (8) is related to difficulties that are faced by students living in hostels. The finding disapproved the research question because the frequency of this factor is low. In hostels, students sometimes have adjustment problems along with difficulties in their studies. Abdullah, Elias, Mahyuddin, and Uli, (2009) concluded that adjustment problems also have significant impact on the performance of students.

An additional analysis indicated that students' academic achievement was not only affected by just change in language, although the maximum frequency shows that students academically face problem due to changes in the medium of instruction. The non-significant difference could also be because the results compared as previous are of the full two years of graduation with the results of the first semester. It may be possible that if the results of the complete two year degree of M.A/M.Sc are compared together may show significant difference between them.

By using qualitative approach, it becomes evident that students' performance is influenced by changes in the medium of instruction, especially when the previous medium was Urdu throughout his/her academic career. Other factors which influence academic achievement in positive ways are also identified, for example, satisfaction of the students with their present status, co-operation of teachers, better previous English skills, confidence to perform better, motivation level for the study, and interest of students in their subject. Other factors which make performance of students poorer or inability to comprehend lectures because of the change in language, less co-operation from teachers, weak in understanding English language, less confidence in themselves, need time for adjustment with the new medium of instruction and also the residents of hostels.

The current research like other researches also has certain limitations. Due to restricted time, the sample was collected from different departments of Punjab University Lahore, therefore the results cannot be generalized. The sample used for this is purposive because purposive sample has the drawback of subjective bias and so the results cannot be reliable as they should be.

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