

Factors Influencing Yield of Rice in Balochistan Province

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ABSTRACT

The objective of this paper is to determine the important factors influencing rice production in the Balochistan province of Pakistan. The data taken from the Agriculture Statistics of Pakistan span from 1980 to 2012 which is published by the Pakistan Bureau of Statistics. The data on rice production in Balochistan is not available after 2012. Employing the multiple Ordinary Least Square regression model for the study, the analysis revealed that; (i) the production of the rice, (ii) the price of the rice and (iii) the use of the irrigation system are essential independent variables influencing the Yield in KGs per hectares. The study provides valuable policy recommendation to enhance rice production and fulfill provincial food demand.

Keywords: Balochistan, Rice, Auto correlation, Multicollinearity, OLS.

INTRODUCTION:

Almost one half of total world population consumes rice as a basic food item. Rice considers as main food as well as a cash crop of Pakistan. Pakistan earns foreign exchange through exporting rice. Pakistan produced 6952 thousand tons of rice in 2008-09, from which Punjab produced 3643, Sindh produced 2537.1, KPK produced 128.2 and Balochistan produced 643.7 thousand tons of rice. Overall, the rice is considerably the best price receiving crop. Easy to digest and equally liked by every age of person. Rice is the one of the best food crop in the world, especially in Asian countries. Seeds of rice contain fiber, oil, protein, salt and starch as well as it also holds vitamins B, E and G. These elements are vital for human body. Unluckily most of these elements during the process after harvesting are lost.

Balochistan is the province of Pakistan, a province that has different culture, tradition, custom, soil, topography and climate. The principally climate of Balochistan is barren and dryness of the climate of is very high. Very little or no rainfall occurs in the region therefore making it complicated for people to survive and crops to grow. No surprise, being the smallest population as compared to other provinces, it has the largest province with respect to area. Despite the fact that for the most part of the region is covered with grasses, herbs, and geophytes, few areas of the province are exceptionally fertile and productive. Due to the variation in climate, temperature also varies with wide ranges same as tropical areas. The fertile and productive soil together with the appropriate weather is good for the agricultural production. In fact, Balochistan is producing different types of rice.

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1. English should be used as medium of instruction from early stage.
2. Teacher should be trained sufficiently for the use of English as a medium of instruction.
3. EMI should be adopted with the combination of local or national languages.
4. At the primary level education should be given in straightforward English, so the students possibly will be aware of it.
5. MOI should remain English but teachers and learner may switch over to first language whenever there is a need to elaborate some certain points.
6. All type of Educational Institutions, Public and Private, should follow the same policy of MOI very strictly.

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instructions over mother tongue or national language. In the light of our research, majority of the teachers are in view that the gap between elite class and lower classes can be achieved through adopting English as medium of instruction. Moreover, the same concept has been highlighted in the National Education Policy (NEP) 2009. Besides this, it has been revealed that most of the teachers said that EMI is not easily understandable for a student that generates a gap between teachers and students. The study also reveals that student cannot read and write in their home language, therefore, English must be adopted as MOI at primary level. Whereas, it was proved in previous researches that the children can learn better in their mother language. Most of the teachers are in view that English should be adopted as MOI from early stages because the children in their child hood can conceptually better understand the concepts and ideas as such EMI will be more effective if students are familiar with this language from early growing stages. On the basis of findings and results it was concluded that, most of the teachers agreed that English have a significant impact on student learning at primary level. Moreover, it was concluded that teachers of different schools don't affects the perception of students for English as medium of instruction. It is concluded that different qualification levels do not affects the attitude of teachers for English as medium of instruction.

Although previous researchers concluded that national language should be MOI whereas our research concludes that English should be adopted as EMI, (Ahmad, 2011). The main reason of this difference in both researches is that the scenario has now been changed due to following reasons:

- a. Most of the young educated generation hailed from Urdu medium education system cannot qualify the exam and standard sets for English medium schools an EMI.
- b. The electronic media has dominated the developing countries by adopting English as communication language.
- c. Through the passage of time, private schools have adopted EMI due to which English has become most commonly used language.
- c. The learning and teaching of computer and applied the science is in English, especially in Pakistan, therefore, this has changed mind and behaviour of mass for adoption of English as medium of instruction being the most popular MOI.

RECOMMENDATIONS

Selecting an appropriate language as MOI is a continuous problem in Pakistan. Our educational institutions are categorized into Urdu medium, English Medium. Some institutions have been adopted regional and provincial languages. In Madaris Arabic is used as MOI. In the situation of Pakistan, it is very difficult to bring together all the educational institutions at one medium.

Suggestion and recommendations which can be made on the basis of the result are as follows:

Children cannot read and write in their Home Language so English should be used	3.17	1.178
Children cannot read and write in their Home Language so Urdu should be used	3.19	1.202
With EMI, students have opportunities to learn content-based subject knowledge in English	3.69	1.098
With EMI Students need to prepare the content before attending lessons.	3.37	1.107
With EMI, it helps enhance students overall English proficiency.	3.95	1.066
With EMI, Students are facing a large amount of vocabulary, which creates difficulty in learning.	3.25	1.085
With EMI, learning progress and effectiveness are more affected.	3.58	1.188

Comparison of teachers' perceptions towards English as medium of instruction on the basis of levels of Qualification (FA, BA, MA)

ANOVA on EMI Attitude Score among Qualification level

	Sum of Squares	Df	Mean Square	F	p.
Between Groups	54.861	2	27.431	.176	.839
Within Groups	12031.626	77	156.255		
Total	12086.488	79			

Above table shows that there is no significant difference between the attitudes of teachers towards the English as medium of instruction on the basis of different qualification level of teachers ($F=.176$, $p=.839$) at $\alpha \leq .05$ level of significance. Therefore it is concluded that different qualification levels do not affects the attitude of teachers for English as medium of instruction.

Comparison of teachers' perceptions towards English as medium of instruction on the basis of Schools

ANOVA on EMI Attitude Score among Schools group

	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	1871.587	7	267.370	1.885	.085
Within Groups	10214.900	72	141.874		
Total	12086.488	79			

Above table shows that there is no significant difference between the attitudes of teachers towards the English as medium of instruction on the basis of schools group ($F=1.885$, $p=.085$) at $\alpha \leq .05$ level of significance. So it is concluded that teachers of different schools do not affect the perception of students for English as medium of instruction.

CONCLUSIONS AND DISCUSSION

English as medium of instruction has a significant impact on student learning at primary level. While the course of process of the thesis as well as on analysis of the data, it has revealed that most of the teachers prefer English as medium of

Table 32

With EMI, learning progress and effectiveness are more affected.

	Frequency	Percent	Cumulative Percent
Strongly Agree	17	21.3	21.3
Agree	35	43.8	65.0
Undecided	11	13.8	78.8
Disagree	11	13.8	92.5
Strongly Disagree	6	7.5	100.0
Total	80	100.0	

Table 32 indicates that 65% teachers were agreed that with EMI, learning progress and effectiveness are more affected, 21% were disagree and 14% teachers were unable to decide.

Statements	Mean	S. D
Students prefer having EMI (English as Medium of Instruction)	3.39	1.142
Student prefer having UMI (Urdu as Medium of Instruction)	3.34	1.179
With EMI students feel more motivated to learn	3.29	1.245
With UMI students feel more motivated to learn	3.56	1.123
With EMI students can answer question more precisely	3.12	1.205
Student find learning enjoyable if it takes place to a language with which they are already familiar	4.13	.998
Students basic conceptual development is more effective if it take place through a language which they understand	4.15	.929
With UMI children lean more and in a happier frame of mind	3.85	.995
Urdu is easy for the student to learn because Urdu is familiar so it will be easy for a teacher to clear the concept of students	3.93	1.088
With EMI students can only understand 50% of the content	3.41	1.122
With EMI vocabulary affects students understanding of subject knowledge	3.70	.960
With EMI students find it difficult to take notes	3.17	1.230
With EMI, it slows down students learning obviously	3.21	1.133
EMI is not easily understandable for students that generates a gap between teachers and students	3.36	1.150
With EMI students feel difficulty to exchange ideas	3.49	1.147
With EMI concept of students remain unclear	3.29	1.081
With EMI students can learn more vocabulary	3.84	1.096
With EMI students academic results can be maintained	3.30	1.174
It is easier for students to understand lesson conducted in English	3.04	1.119
With EMI students learn language better and earlier stage	3.49	1.263
English is necessary because of globalization	4.10	.963
With EMI students can play a much more active role in their own learning by questioning and by exploring ideas.	3.71	1.105
The Gap between elite and lower classes can be achieved through increasing access to English	3.70	1.084

Table 29

With EMI Students need to prepare the content before attending lessons

	Frequency	Percent	Cumulative Percent
Strongly Agree	7	8.8	8.8
Agree	43	53.8	62.5
Undecided	8	10.0	72.5
Disagree	17	21.3	93.8
Strongly Disagree	5	6.3	100.0
Total	80	100.0	

Table 29 indicates that 62% teachers were agreed that with EMI Students need to prepare the content before attending lessons, 28% were disagree and 10% teachers were unable to decide.

Table 30

With EMI, it helps enhance students overall English proficiency.

	Frequency	Percent	Cumulative Percent
Strongly Agree	26	32.5	32.5
Agree	38	47.5	80.0
Undecided	5	6.3	86.3
Disagree	8	10.0	96.3
Strongly Disagree	3	3.8	100.0
Total	80	100.0	

Table 30 indicates that 80% teachers were agreed that with EMI, it helps enhance students overall English proficiency, 14% were disagree and 6% teachers were unable to decide.

Table 31

With EMI, Students are facing a large amount of vocabulary, which creates difficulty in learning.

	Frequency	Percent	Cumulative Percent
Strongly Agree	9	11.3	11.3
Agree	28	35.0	46.3
Undecided	21	26.3	72.5
Disagree	18	22.5	95.0
Strongly Disagree	4	5.0	100.0
Total	80	100.0	

Table 31 specify that 46% teachers were agreed that with EMI, Students are facing a large amount of vocabulary, which creates difficulty in learning, 27% were disagree and 26% teachers were unable to decide.

Table 26

Children cannot read and write in their Home Language so English should be used

	Frequency	Percent	Cumulative Percent
Strongly Agree	10	12.5	12.5
Agree	27	33.8	46.3
Undecided	16	20.0	66.3
Disagree	21	26.3	92.5
Strongly Disagree	6	7.5	100.0
Total	80	100.0	

Table 26 point towards that 46% teachers were agreed that children cannot read and write in their Home Language so English should be used, 34% were disagree and 20% teachers were unable to decide.

Table 27

Children cannot read and write in their Home Language so Urdu should be used

	Frequency	Percent	Cumulative Percent
Strongly Agree	11	13.8	13.8
Agree	27	33.8	47.5
Undecided	14	17.5	65.0
Disagree	22	27.5	92.5
Strongly Disagree	6	7.5	100.0
Total	80	100.0	

Table above indicates that 48% teachers were agreed that children cannot read and write in their home language so Urdu should be used, 35% were disagree and 17% teachers were unable to decide.

Table 28

With EMI, students have opportunities to learn content-based subject knowledge in English

	Frequency	Percent	Cumulative Percent
Strongly Agree	16	20.0	20.0
Agree	43	53.8	73.8
Undecided	4	5.0	78.8
Disagree	14	17.5	96.3
Strongly Disagree	3	3.8	100.0
Total	80	100.0	

Table 28 indicates that 74% teachers were agreed that with EMI, students have opportunities to learn content-based subject knowledge in English, 5% were disagree and 20% teachers were unable to decide.

Table 23

English is necessary because of globalization

	Frequency	Percent	Cumulative Percent
Strongly Agree	32	40.0	40.0
Agree	32	40.0	80.0
Undecided	9	11.3	91.3
Disagree	6	7.5	98.8
Strongly Disagree	1	1.3	100.0
Total	80	100.0	

Table 23 signify that 80% teachers were agreed that English is necessary because of globalization, 9% were disagreeing and 11% teachers were unable to decide.

Table 24

With EMI students can play a much more active role in their own learning by questioning and by exploring ideas.

	Frequency	Percent	Cumulative Percent
Strongly Agree	19	23.8	23.8
Agree	36	45.0	68.8
Undecided	12	15.0	83.8
Disagree	9	11.3	95.0
Strongly Disagree	4	5.0	100.0
Total	80	100.0	

Table 24 indicates that 69% teachers were agreed that with EMI students can play a much more active role in their own learning by questioning and by exploring ideas, 16% were disagree and 15% teachers were unable to decide.

Table 25

The Gap between elite and lower classes can be achieved through increasing access to English

	Frequency	Percent	Cumulative Percent
Strongly Agree	18	22.5	22.5
Agree	37	46.3	68.8
Undecided	11	13.8	82.5
Disagree	11	13.8	96.3
Strongly Disagree	3	3.8	100.0
Total	80	100.0	

Table 25 reveals that 69% teachers agreed that the gap between elite and lower classes can be achieved through increasing access to English, 18% were disagree and 14% teachers were unable to decide.