# Use of L1 to Support Learning at Graduation Level 

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#### Abstract

This study focuses on the need of bilingualism for better understanding and superior learning of arts and science subjects. For, bilingualism could be utilized for lecture delivery, question answering, class presentation, written examination and enhancement of language skills and learning of English as a second language. The sample of study involves 140 graduation level (Grade-15) students, including 70 female and 70 male students belonging to peripheral rural and urban areas, enrolled at a public sector university located in the central Punjab, Pakistan in chemistry, computer, education and mathematics programs. The data was collected through a questionnaire using the Likert scale. Minitab (Version 17) was used to perform a comparison analysis among the responses of the participants. The comparison was made using Tukey's test. Results of the study show that the majority of students appreciate and recommend bilingualism in teaching. The results of the study also show that the students find it difficult to be taught in English language. Therefore, they are in favour of the use of L1/local/regional languages for instruction and examination purpose. The results of the study suggested the use of bilingualism at graduation level for teaching and examining of arts and science subjects.


## 1. Introduction

Whether bilingualism should be utilised in the class to support learning at graduation level or not, the experts are divided in their opinion on this point (Brown 2000: 195). Some consider it advantageous/supportive for the learning process. Names of noted supporters of bilingualism include Drummond (1925) and West (1926). The former is of the opinion that no country can afford to rely on its own stores of knowledge. The later suggests that the majority of the nations of the earth must inevitably, as the time goes on, become bilingual. Agreeing with them, a number of modern linguists have favoured bilingualism. Among them stand Bialystok et al. (2012) who regard bilingualism useful for warding off cognitive decline in older age. Similarly, Kim (2016) recognized different cognitive and cultural benefits of bilingualism. In addition, Bonfiglio (2017) regards bilingualism as highly beneficial for mental development, education, traveling, social opportunities and work place experience. A recent study by Farukh, Ahmad \& Ismail (2018) conducted at school level in Pakistani context claims the use of an L1 supportive to the teaching of an L2.

On the other hand, there are some experts who are strongly against the use of bilingualism. Names of some of them are Epstein (1977), Huse (1945) and Hussan (2004). Epstein (1977) embarks on the points that being compelled to use two different languages children are obliged to direct their attention mainly to words and, to a less extent, to ideas. When they speak they express themselves in one language but think in the other. Likewise, Huse (1945:24) opines that "Bilingualism is supposed to retard mental development or preventing the individual from attaining full intellectual abilities". And the same point of view is shared by Hassan (2004: 52) who says that "The speech centers of the brain are burdened enough when they cope with one language. When they have to juggle with two, three or more, the signals are likely to get crossed". Quzia \& Folke (2016) regard bilingualism as disadvantageous arguing that it makes bilinguals suppress one language under the influence of another. Guirgis \& Olson (2014) and Shadijanova (2016), on the other hand, consider it both with advantages and disadvantages.

Obviously, when experts are divided in their opinion on the same subject, it is far more difficult for a person, teaching at graduation level, to decide whether to adapt/adopt or not to adapt/adopt bilingualism in the classroom. This justifies the need to conduct a study in search of the answer whether bilingualism, supported by L1/local/regional languages, should be used graduation at level or not.

In Pakistan, the need to know about the effectiveness of bilingualism to support learning and teaching at graduation level has become more pressing because there are different types of institutes/schools such as public, private, grammar, madrasah etc. It is important to note that the students at these institutes belong to different bilingual and multilingual communities. They use different regional languages at home, school and other places with an addition of Urdu as their national language and English as their second or target language (Mehmood, Farukh \& Ahmad, 2017 and Ahmad, Farukh, Ismail \& Sarwar, 2018). The students, teachers and managing authorities are all facing the same problem i.e. whether bilingualism should be adopted or not. Thus, this study seeks to check the viability of bilingualism at graduation level.

The use of bilingualism in Pakistani setting has been strongly opposed. It has been dubbed as a bane of the entire educational endeavor in Pakistan where the students have to learn Arabic for religion and Urdu as a national language, along with various other local/regional languages. Thus, children have to devote more than half of their time to the learning of different languages leading to the reduction of time for other subjects. European children, on the other hand, are considered fortunate enough for not having the burden of too many languages to learn. For them their mother tongue is sufficient for different practical purposes (Ahmad, 1968).

Bilingualism in classroom setting has also been opposed strongly on the claim that it compels children to use two different languages whereby they start paying more attention to words rather than to ideas. What is more, bilingual children have to think in one language and express themselves in another (Epstein, 1977). In reaction, Bialystok (1992) favours bilingualism discussing about the cognitive abilities of the bilingual students. He states that the students can perceive the stimuli or situations more analytically as compared to the monolinguals. Bilinguals, in the opinion of Bialystok (1992), have greater abilities to select better solutions of critical problems. She adds that bilinguals possess analytical skills as seen in their perception, thinking, language and communication. This skill, according to her, helps them further in creative and divergent thinking and analysis.

A noted work on multilingualism, 'Remaking of English in Pakistan' by Hassan (2004) regards it as a burden on the brain. It goes further saying that the juggling with two or more languages produces strange combinations like code switching or code changing. It calls code switching or code changing "a second phenomenon which has different social implications" (p. 52). It also says that, as in the past, the English used to speak French only to appear to be well educated and belonging to the upper class, the same is what the Pakistanis
are doing these days. They are using English in Urdu, Punjabi etc. and thus they are producing an "odd mixing" (Hassan, 2004: 52). On the other hand, a recent study by Farukh, Ahmad \& Ismail (2018) conducted at school level in Pakistani context finds that the students, taught through Urdu as a medium of instruction, perform better in L2 examination. On the basis of this finding the study favours the use of L1 for teaching an L2.

## Aim of the Study

The present study intends to know if the graduation students from different subjects think that the use of their L1 could be supportive to learning if used as a medium of instruction.

## Research Methodology

The study was conducted on female and male students at the University of Okara, Punjab (Pakistan). 70 female and 70 male graduation level (Grade-15) students were selected from chemistry, computer, education and mathematics departments of the said university through a simple random sampling technique. All the participants were studying in the fourth semester of the academic year 2016/2017. These participants belonged to peripheral rural and urban areas of Okara District located in the central Punjab (Pakistan) and were native speakers of Punjabi and Urdu. Along with these languages they also use English as a foreign/second language. They live in a Punjabi-Urdu speaking community and all of them have completed the 14 years of education through English as a medium of instruction. All of these participants are almost homogeneous in terms of their educational, linguistic, and socio-economic backgrounds. They speak Punjabi and Urdu at home, school, college and university with parents, siblings, class fellows and playmates. All of these participants have been studying English as a compulsory subject right from the beginning of their academic career (Mehmood, Farukh \& Ahmad, 2017 and Ahmad, Farukh, Ismail \& Sarwar, 2018) and the medium of instruction at university level is English. In this way, they have studied in bilingual and non-bilingual settings.

## Data Collection

The data for this study have been obtained from 140 students enrolled at the University of Okara through a Likert-type scale. The statements in the said scale were general in nature but had a greater quality of rating the choices. The Likert scale offered five responses including a neutral scale i.e. 'neither agree, nor disagree' against each given statement.

All of the 140 participants were asked to opt/tick mark an option out of five responses given against each statement i.e. strongly agree, agree, neither agree nor disagree, disagree and strongly disagree. They were given proper time and basic information about the scale. Difficult terms/words were explained to them. They were also told how to fill in the required places on the scale. They were given free time to provide their responses. The participants knew that their responses were going to become the part of the study.

After getting the responses filled in by the participants, the sheets were collected back from them. All the responses were carefully counted and recorded in a table. The whole process was carried out manually.

## Data Analysis

The analysis of responses of the likert scale by 140 students, enrolled in graduation level programs in the fields of chemistry, computer, education and mathematics at the University of Okara, (Pakistan), involves following process;

1. Getting the responses from the participants
2. Counting and recording the responses separately
3. Applying Tuskey's Test through Minitab Version-17
4. Arranging the responses in a tabular form
5. Describing the findings

## Results

Minitab (Version 17) was used to perform a comparison analysis among the responses of the participants. The comparison was made using Tukey's test. Letters are put in superscript in Table.1. If in a row two values have different letters it shows a significant difference among the values.

Table 1. Showing the comparison analysis of responses in favour of and against Bilingualism as medium of Instruction

|  | Strongly <br> Agree | Agree | Neither <br> Agree/Disagree | Disagree | Strongly <br> Disagree |
| :--- | :---: | :---: | :---: | :---: | :---: |
| I appreciate the use of two <br> languages (English and Urdu) <br> in the classroom at graduation <br> level | $55.0 \pm 5.0^{\mathrm{A}}$ | $57 \pm 5.50^{\mathrm{A}}$ | $10 \pm 1.0^{\mathrm{B}}$ | $11 \pm 1.50^{\mathrm{B}}$ | $8 \pm 0.50^{\mathrm{C}}$ |
| I believe that learning through <br> bilingualism can lead to better <br> understanding and superior <br> learning at graduation level | $49.0 \pm 3.0^{\mathrm{B}}$ | $58 \pm 3.50^{\mathrm{A}}$ | $11 \pm 1.0^{\mathrm{D}}$ | $15 \pm 3.0^{\mathrm{C}}$ | $5 \pm 0.50^{\mathrm{E}}$ |
| I recommend the use of <br> bilingualism at graduation level | $32.0 \pm 1.0^{\mathrm{B}}$ | $60 \pm 1.50^{\mathrm{A}}$ | $20 \pm 2.50^{\mathrm{C}}$ | $23 \pm 3.00^{\mathrm{C}}$ | $5 \pm 1.0^{\mathrm{D}}$ |
| I believe that bilingualism <br> makes it easy to learn both arts <br> and science subjects at <br> graduation level | $43.0 \pm 1.0^{\mathrm{B}}$ | $59 \pm 3.0^{\mathrm{A}}$ | $16 \pm 1.50^{\mathrm{C}}$ | $15 \pm 3.50^{\mathrm{C}}$ | $5 \pm 1.0^{\mathrm{D}}$ |
| I think that science subjects <br> cannot be taught well through <br> bilingualism at graduation level <br> so English should used for this <br> purpose | $29.0 \pm 1.0^{\mathrm{C}}$ | $52 \pm 2.0^{\mathrm{A}}$ | $13 \pm 2.0^{\mathrm{D}}$ | $42 \pm 3.20^{\mathrm{B}}$ | $6 \pm 1.25^{\mathrm{E}}$ |
| I believe that use of <br> bilingualism works best when <br> used for question-answer, <br> lecture delivery, presentations <br> etc. in the classroom at <br> graduation level | $55.0 \pm 5.0^{\mathrm{A}}$ | $42 \pm 2.50^{\mathrm{B}}$ | $12 \pm 1.00^{\mathrm{C}}$ | $9 \pm 1.50^{\mathrm{D}}$ | $8 \pm 1.50^{\mathrm{D}}$ |
| I think that the conduct of <br> written exams in English <br> creates difficulties so <br> bilingualism will give better <br> results if permitted in written <br> exams at graduation level | $25.0 \pm 2.50^{\mathrm{B}}$ | $46 \pm 2.00^{\mathrm{A}}$ | $20 \pm 1.50^{\mathrm{D}}$ | $34 \pm 2.00^{\mathrm{C}}$ | $15 \pm 1.50^{\mathrm{D}}$ |
| I believe that English as a <br> medium of instruction is <br> sufficient enough for the <br> enhancement of speaking, <br> listening, reading and writing <br> skills at graduation level | $36 \pm 2.0^{\mathrm{B}}$ | $67 \pm 4.00^{\mathrm{A}}$ | $17 \pm 1.50^{\mathrm{C}}$ | $15 \pm 2.50^{\mathrm{C}}$ | $6 \pm 0.50^{\mathrm{D}}$ |
| I think that use of Urdu with <br> English can work better for the | $51 \pm 5.50^{\mathrm{B}}$ | $60 \pm 2.30^{\mathrm{A}}$ |  |  |  |


|  | Strongly <br> Agree | Agree | Neither <br> Agree/Disagree | Disagree | Strongly <br> Disagree |
| :--- | :---: | :---: | :---: | :---: | :---: |
| enhancement of speaking, <br> listening, reading and writing <br> skills at graduation level |  |  |  |  |  |
| I think English as a second <br> language can well be learnt if <br> taught with the help of <br> national/regional languages in a <br> bilingual setting at graduation <br> level | $43 \pm 1.0^{\mathrm{B}}$ | $58 \pm 2.50^{\mathrm{A}}$ | $10 \pm 1.00^{\mathrm{C}}$ | $10 \pm 1.0^{\mathrm{C}}$ | $10 \pm 1.0^{\mathrm{C}}$ |

Note: Results are mean $\pm$ S.D of three replicates, the values in the same rows with different letters are significantly different at 5\% significance level.

Table 2. A raw numerical description of responses

| Statement | Strongly Agree | Agree | Neither Agree nor Disagree | Disagree | Strongly Disagree |
| :---: | :---: | :---: | :---: | :---: | :---: |
| S1 | 55 | 57 | 10 | 11 | 8 |
| S 2 | 49 | 58 | 11 | 15 | 5 |
| S 3 | 32 | 60 | 20 | 23 | 5 |
| S 4 | 43 | 59 | 16 | 15 | 5 |
| S 5 | 29 | 52 | 13 | 42 | 6 |
| S 6 | 55 | 42 | 18 | 17 | 8 |
| S 7 | 25 | 46 | 20 | 34 | 15 |
| S8 | 36 | 67 | 17 | 15 | 6 |
| S9 | 51 | 60 | 12 | 9 | 8 |
| S 10 | 43 | 58 | 10 | 10 | 10 |

Figure 1. A graphical representation of responses


Figure 1: Results of the Study
The description of results of the study has been given hereunder;

1. The responses of Statement No. 1, as mentioned in the table above, show that the students appreciate the use of two languages. Total number of responses counted was 140 out of which the maximum number i.e. 57 had been found in agreement with teaching in two languages. Other choices being 55 strongly agree, 10 neutral, 10 disagree and 8 strongly disagree. These numbers clearly go in favor of teaching in two languages. However, a number of students have been found to 'disagree/strongly disagree', but they are few in number as compared to
those who agreed/strongly agreed. In this way, this poll goes in favour of learning/teaching supported with an L1.
2. The responses of Statement No. 2, as shown in the table 1, show that the majority of the students i.e. 58/140, believes that learning through bilingualism can lead to better understanding and superior learning. The number of other choices includes 51 strongly agreed. 11 neutral, 15 agreed and 5 strongly disagreed. It shows that the number of those students who disagree/strongly disagree is small as compared to those who agree/strongly agree. In this way, it also approves that the use of L1 facilitates learning at graduation level.
3. According to the responses of the Statement No. 3, given in the table 1, the students seem to recommend the use of an L1 as 60/140 have opted 'agree'. Similarly, the number of students in second majority i.e. $32 / 140$ have also showed strong agreement with the recommendation of L1 support in learning. The number of students, who disagreed/strongly disagreed, is $23 / 5$ respectively which appears to be in minority. Therefore, it can be said that the majority of students recommends the use of L1 for learning at graduation level.
4. The findings of the Statement No. 4 show that the majority of the students i.e. $43 / 140$ strongly agree and $61 / 140$ Agree to believe that bilingualism makes it easy to learn both arts and science subjects. The numbers of other students out of 140 who have opted neutral, disagree and strongly disagree are 16,15 , and 5 respectively. Therefore, this also clearly shows that the majority of the students wants to study with an L1 support at graduation level.
5. Statement No. 5 intends to know about students' choice of the use of bilingualism in different teaching techniques/methods i.e. lecture delivery, question answer technique and presentation in the classroom. It is interesting to note that the majority of students i.e. 55/140 strongly agrees and 42/140 agrees that lecture delivery, question/answering and classroom presentations be carried with the help of an L1. On the other hand, those who do not like the use of L1 in the classroom for lecture delivery, question/answering and presentations have been found to be in minority i.e. 17/140 disagreed and only $8 / 140$ strongly disagreed. So, the responses of this statement also approve the use of L1 for learning/teaching purpose in the classroom
6. The statement number 6 enquires about the views of students about the conduct of written exams in English. It states that conduct of written exams in English poses difficulties therefore, L1 support be permitted for better results. The majority of students i.e. $46 / 140$ agrees that English creates difficulty in written exams therefore, they may be allowed to attempt their exam papers in other native/local languages. However, it is interesting to note that the responses of this statement, are much close in number to each other i.e. 25/140 strongly agree, 46/140 agree, 20/140 neutral, 34/140 disagree and 15/140 strongly disagree. In this way, it shows a weak support of the use of an L1 in learning/teaching as compared to the choices of other statements.
7. The Statement No. 7 seeks confirmation of the usefulness of the use of L1 with English for the enhancement of speaking, listening, reading and writing skills. It has been found that the great number of the students i.e. 60/140 agrees and 51/140 strongly agrees with the view that speaking, listening, reading and writings can be enhanced through the use of Urdu as an L1 with English in the classroom at graduation level of education. On the other hand, those who disagreed or strongly disagreed were found small in number i.e. 9/140 disagreed and $8 / 140$ strongly disagreed. In this way, this statement strongly approves the use of national/native/local languages with English for the enhancement of language skills.
8. Similarly, the Statement No. 8 claims that English as a second language can well be learnt if taught with the help of national/regional languages in a bilingual setting at graduation level. The opinion of the majority of students, i.e. 67/140 agreed and 43/140 strongly agreed, shows conformity with the statement. However, a small number of students i.e. 10 disagreed and 10 strongly disagreed with the statement. But these students are in minority. Therefore, their choice stands of less value as compared to those in majority.

## Discussion and Conclusion

In the light of above results, it is evident that the majority of the students at graduation level (Grade-15) of education appreciate and recommend the use of two languages i.e. Urdu as an L1 and English as an L2 in the classroom. The students believe that such type of mode of teaching and learning leads to better understanding and superior learning, makes the learning of arts and science subjects easy, works best during lecture delivery, question/answering and presentation in the classroom. They think that the written examinations in English create difficulty for them. They also think that L1 helps the improvement of speaking, listening, reading and writing skills, as well as learning of English as a second language if taught with the help of L1 (cf: Bild \& Swain, 1989; Wen \& Johnson, 1997 and Lasagabaster, 2001). Therefore, they recommend the use of bilingualism/L1 for learning at graduation level of education. The reason behind the recommendation of L1 support for learning is that most of the students in Pakistani educational institutions are first-generation learners. Therefore, they are strangers to English (DAWN, 2013), and find it difficult to learn through English as a medium of instruction (Mehmood, Farukh \& Ahmad, 2017). Other reasons behind the favour of L1 support by the students mentioned in an earlier study are lack of facilities and improper teaching and learning process of English at schools (Aziz. et. al. 2015). In this way, the students, failing to learn English properly at school level, rely on learning through bilingualism supported by L1 with which they have been taught with particular support of local and regional languages. Along with these reasons, students' affiliation for their national, local and regional languages cannot be ignored. Being sincere to their national language, students opt to learn in it and resist being taught in foreign language. They embark on the plea that many countries in the world like China, Korea, US, UK, Russia, Germany etc. are teaching their students in their national languages. Moreover, (Abbas 1998 cited by Memon 2018) also believes that teaching in English in Pakistan at all levels is neither suitable nor a plausible plan. Therefore, Pakistani universities could arrange to teach their students in Urdu (Uddin, et. al. 2015). However, whatever the reasons are, students like to learn in bilingual setting with support of L1 because of the reason that it helps them understand and learn well. They think that bilingualism is highly beneficial (cf: Bonfiglio, 2015), its use is very helpful saving them from cognitive decline (cf: Bialystock, et. al. 2012) and L1 has a positive effect on learning. It has a facilitating role that can really help learning (Miles, 2004). That is why use of bilingualism supported by L1 is necessary at graduation level, until the education system in Pakistan is able to produce good English language skills. Moreover, universities or the Higher Education Commission in Pakistan should expand its language policy by adding local languages along with English. Plus local languages should not be treated as handicaps. Instead, they should be taken as opportunities and be given due place in syllabus and other institutional practices (Memon, 2018).

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