Transforming English Language Writing Skill Employing Problem Based Learning

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Abstract

Problem Based Learning (PBL) has been implemented successfully to enhance learning at various levels and in different situations around the world. Some studies in Pakistan have also proved its worth as effective learning technique in medicine and language such as English. PBL can enhance learners' competency in English language skills and lessen their difficulties for communication. The present study aimed at seeing effects of PBL in English classrooms for transforming and improving writing skill of secondary level learners. PBL was applied for teaching-learning of English essay writing. 9th grade students studying at 12 randomly selected Islamabad Model Schools, Islamabad, Pakistan (IMSIP) were engaged in the study. The study was conducted through pre-test post-test control group experimental design. The subjects were selected through stratified and random sampling techniques from four strata: Rural, Urban, Male and female and divided into two groups (416+415 experimental & control groups respectively). Data were collected through pre-test and post-test and analyzed through employing t-test and descriptive statistics. PBL proved as more effective teaching-learning technique than conventional method for transforming and improving secondary level learners' English essay writing. The researchers recommended the use of PBL for English teaching at secondary level.

Keywords: English writing skill, Problem based learning, Learner-centered classroom, Authentic problems, Collaborated learning.

Introduction

Importance of English language as *lingua franca* has been recognised in most parts of the world. It is widely used in communication and for other purposes such as correspondence, legislation, court proceedings and medium of instruction. In this regard, Pakistan is no exception; English is used here for status symbol in addition to economic, social and political elevation. People consider learning of English essential to achieve

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social mobility, better prospects and higher status in the society. Thus, competency in English communication skills is a key to success in practical life. Since success in all examinations and recruitment tests depends upon writing skill, it gets more importance. But majority of Pakistani students face difficulties in learning English writing to get through their exams. They lack confidence for communicating in English even after graduating with good grades. Many efforts have been made by the researchers to find some methods, techniques and strategies to make learning more easy, effective and motivating. Teachers apply them for promising results. Problem Based Learning (PBL) is one of these methods that have been implemented successfully to transform and enhance learning at various levels and in different situations around the world.

Rationale of the Study

Communication in English language poses many threats and difficulties for Secondary level learners in Pakistan. Using English in their academic and practical life is an uphill task for them (Hansel, 2008; Shahid, & Hassan, 2012; Jiménez, 2013; Sumaera et al, 2014). Many of them are weak even in Urdu communication despite the fact that it is national language of Pakistan. Majority of public and private schools impart instruction in English medium; it is important that learners should be able to communicate effectively, especially in writing to get through exams. But they feel difficulty while communicating in oral or written form of English. Learners remain shy in communication even after graduating with good marks. They cannot use language as an effective tool for communication in their real life as their competency level remains at residual level. The conventional teaching methods seldom provide them with opportunities to express themselves freely. Generally, these methods make them learn by heart and reproduce in the exams by recalling their memory.

Therefore, it is essential to improve the situation by adopting such teaching-learning methods and techniques that encourage and transform the learners from rote learning to creativity. Problem Based Learning has been experimented for various subjects at different levels around the world and recognised as an effective technique. The researchers wanted to see the effects of PBL for transforming English writing skill. They decided to experiment with Problem Based Learning in secondary school classrooms for improving English writing skill of students.

Statement of the Problem

Content and ideas in various disciplines are difficult to comprehend for secondary level students in Pakistan, especially when the medium of instruction is English. Low competence in English communication makes their learning more difficult. They also face problems while expressing freely through English writing. Despite teachers' efforts for improving their learning and communication through various methods and techniques, the outcomes remain less encouraging. Majority of them remain low level English users in

communication even after graduating with good grades. This situation demanded that some new method and technique should be applied to transform and improve English writing skill. Hence the researchers decided to experiment with Problem Based Learning to see its effects on learning English writing skill by secondary level learners.

Objectives

The objectives of this study were to:

I.   Determine how much learners, in experimental and controlled groups, achieve in English writing skill after their treatment through Problem Based Learning and conventional pedagogy

II. Evaluate which group of learners achieves more after the use of PBL and conventional pedagogy for learning English writing skill.

III. Examine how PBL affects English writing skill between secondary level students' gender and local groups.

IV. Ascertain the impact of PBL on English writing skill of various groups of secondary level students.

Research Questions

The research questions formed by the researchers were:-

I.   How English writing skill of students at secondary level is transformed and improved through PBL?

II. Whether PBL is more effective than conventional pedagogy for secondary level students to learn English writing skill?

III. What are the effects of PBL for learning English writing skill on gender and local groups?

IV. Which of the gender and local groups learn English writing skill more effectively through PBL?

Hypotheses

This experimental study checked the following hypotheses:

$H_0 1$:   There is no evidence of significance between the difference of performance of Secondary level student groups using Problem based Learning and conventional pedagogy.

$H_0 2$:   There is no evidence of significance between the difference of performance of Secondary level student groups across gender groups using Problem based Learning and conventional pedagogy.

H$_0$ 3:   There is no evidence of significance between the difference of performance of Secondary level student across rural and urban groups using Problem based Learning and conventional pedagogy.

Conceptual Framework

The study progressed and concluded its findings and recommendations on a specified framework where each and every step followed as planned. The conceptual frame work is presented through figure-1below:
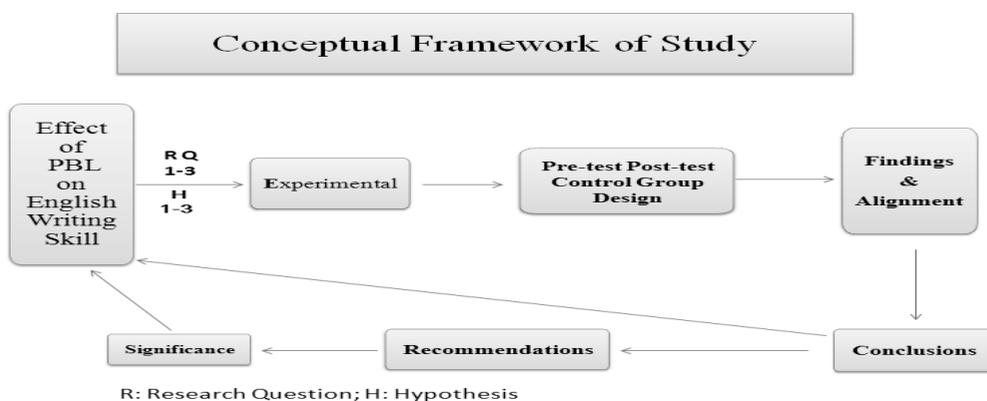
Figure 1: Conceptual Framework of the Study on Transforming English Language Writing Skill Employing Problem Based Learning

Significance of the Study

Problem Based Learning has been adopted as an effective teaching-learning technique and is widely used in many disciplines around the world. The findings of this study would be beneficial to the learners, teachers, and educational leaders, and could be applied in many analogous contexts. The students can learn English writing skill using PBL for enhancing their communication competency. The teachers can use PBL to transform their classrooms into learning-centred one making teaching more effective. The head teachers can facilitate their teachers to create congenial environment for meaningful learning. Moreover, the findings of this study could lead to the new avenues of knowledge kingdom. The future researchers could experiment PBL in different contexts.

Literature Review

Problem Based Learning is an instructional approach (Albanese and Mitchell 1993; Vernon & Blake, 1993; Maxwell, Bellisimo, & Mergendoller, 2005). PBL is also an approach to devise curriculum (Boud & Feletti, 1997). According to Koschmann et al (1996), PBL is teaching-learning theory where teaching takes place through collaboration

of students making them learn as self-directed learners focusing on specific cases or problems. The implementation of PBL follows five steps: I. Defining the problem in specific terms, II. Application of Knowledge, III. Learning under self-direction, IV. Summarising and V. Self-assessment. Sonmez and Lee (2003) find PBL in functional terms more applicable to secondary education as it is an instructional approach that involves the students to develop various skills according to their own motivation, determination and discretion. It challenges them to find out the solutions of real life problems.

PBL was first experimented for education at Canadian medical schools in 1970s. The teachers taught their students through this method (Barrows, 1996 as cited in Gijbels et al, 2005) and found it more effective than conventional pedagogy. Since then, it has been applied in other disciplines and contexts and the results are quite encouraging (Gijbels et al, 2005). It is not much old in the history of pedagogy, yet it has intellectual roots in ancient teaching methodology used by Socrates. He made his students engage in debates and question-answer process for learning new ideas. PBL may also have been developed from the Hegelian technique of thesis-antithesis-synthesis used through discussion (Rhem, 1998). Ward, and Lee (2002) mention that Plato (360 B.C.E./1960) reported Socrates' practice of guiding his students by making them raise questions and answer the same by themselves or through discussion. They tried to find out solutions to their problems by relating their knowledge to real life situations. The purpose of such practice was to encourage bringing forth their new ideas individually or in groups. PBL can also benefit from the same practice of questioning as used by Socrates. John Dewey's learning by doing or discovery based learning also has common features with PBL with some minor difference: Dewey's method engages the students at abstract level, while PBL makes them share their ideas through discussion. The students can discuss the details of even abstract ideas by using cognitive science and technological tools.

Problem Based Learning, when applied for language learning, can be compared with such approaches as Community of Inquiry Model (Garrison, Anderson, & Archer, 2001), 'Content-Based Learning' (Rodgers, 2006; Garner & Borg, 2005;), 'Project-Based Learning' (Alan & Stoller, 2005; Lee, 2002; Moss & Duzer, 1998 cited in Mathews-Aydinli, 2007) and 'Task Based-Learning' (Ellis, 2003; Skehan, 1998; Willis, 1996). The above cited teaching methods and techniques are similar to PBL in many ways. There might be some common features in their procedure and these even share the same theoretical base. But PBL is different too from these approaches; it advocates finding solutions for real life-like problems which are open ended and have more than one solution (Ertnmer et al, 2003). Hmelo-Silver, Duncan, and Chinn (2007) associate PBL with constructivism. They are of the view that PBL involves students in constructing new knowledge in one way or the other. All these approaches work efficiently in such environments where advance technology is used for assisting the learning. The hardware

or software is merely used as a means to enhance and facilitate learning process rather than as an end.

Many researchers have used Problem Based Learning in a variety of situations. Albanese and Mitchell (1993) have given the summary of different research works where PBL was used. They agree that PBL was more nurturing and enjoyable as compared with conventional instruction. PBL graduates performed well, and sometimes better in clinical examinations and faculty evaluations.

As pedagogy, PBL has also been implemented in Pakistan over the last decade. But most of the studies have been carried out by the researchers in the context of medical profession. The results from eleven studies conducted here reveal that PBL has been found more effective and advantageous than lecture method in knowledge acquisition, increasing learners' motivation, confidence and interest in learning (Mahmud & Hyder, 2012). Hussain, Nafees and Jumani (2009) conducted an experimental study on grade XII learners. They found PBL as more effective than conventional lecture method in enhancing achievement level of the learners and helpful for teaching literature to L2 learners.

Methodology

This experimental study followed pre-test post-test control group experimental design. Problem Based Learning was applied on the students in experimental group to teach English writing skill. Their performance was compared with the performance of students in control group. Traditional method was used to teach the same content to the control group.

The subjects for experimentation were the students studying in 9th class at 12 Federal Government schools. The schools were selected randomly from male, female, rural and urban echelons. These schools are named as Islamabad Model Schools and function under the administrative control of Federal Directorate of Education Islamabad. English essays were taught following a teaching module developed, validated and ensured for reliability through pilot study. Savin-Baden and Major (2004) suggest Shoestring approach to apply PBL for teaching. This approach advocates applying PBL gradually only to teach specific items or area of the subject. The rest of the items are taught using conventional teaching method. The use of PBL is then increased steadily. The researchers adapted it for employing PBL to teach English writing skill. PBL on Shoestring approach is given in Figure 2.

Semester /Year	Teaching Method				
1	PBL	Conventional teaching	Conventional teaching	PBL	Conventional teaching
2	Conventional teaching	PBL	Conventional teaching	PBL	Conventional teaching
3	Conventional teaching	Conventional teaching	Conventional teaching	PBL	PBL

Figure 2. Problem-based Learning on Shoestring Approach. Adapted from Savin-Baden and Major (2004)

Shoestring approach has an advantage in the sense that PBL can be applied to teach students in a flexible manner. PBL is applied to a specific area of study only; rest of the topics are covered applying conventional teaching method. This study was carried out applying PBL for teaching of writing essays in English language only. The students in experimental group were fearful in the beginning that there might be some waste of time or extra load in using PBL. So rest of the topics and areas in English language teaching were taught applying conventional teaching method.

PBL uses learner-centred approach where students are involved at all stages. Prestera (2002 cited in the Herridge Group Inc, 2004) has suggested 'the Morrison, Ross and Kemp Model' (Classroom-oriented) design for instruction as best suited to learner-centred classroom environment. This design was adopted in this study because of its two benefits: I. All orientation is taken from learners' point of view, and II. This system is cyclic where all the components and stages are independent of one another. The students can begin from anywhere according to their requirement and convenience.

Participants/ Subjects for Experimentation

Islamabad Capital Territory (ICT) comprises urban and rural areas of Islamabad. It has 157 public male and female schools and colleges where secondary classes are functioning. These institutions work under the control of Federal Directorate of Education Islamabad. Total population of students at secondary level (9th grade) was 16300 (Urban: 9802 and Rural: 6498).

The subjects for this study were the 9th grade male and female students studying at urban and rural schools of ICT. They were selected from 12 randomly selected schools using stratified sampling technique. Their selection was also random from four strata (male, female, rural and urban). A pre-test was administered on 9th grade students studying in two sections at each of these schools. They were required to write English essay to show their competence in English writing skill. The students from both the sections at each school were equated on the basis of pre-test results. They were named as experimental and controlled groups. 416 students were assigned to experimental group and 415 to control

group. Table 1 below shows students' allocation in experimental and control groups at each school.

Table 1   *Students' Allocation in Experimental and Control Groups at Each School*

S. No.	Local & Gender Group	Students' Number : N	
		Experimental Group	**Control Group**
1	**Rural Male**	38	35
2		33	35
3		42	44
4	**Rural Female**	35	36
5		34	29
6		32	37
7	**Urban Male**	32	35
8		25	28
9		33	29
10	**Urban Female**	30	28
11		45	40
12		37	39
Total Number of Students		**416**	**415**

Problem Based Learning was used to teach English writing skill to the students in experimental group at each school. While controlled group students were taught through employing conventional teaching method.

Instrument for Data Collection

The researchers used Pre-test post-test control group design for this experimental study. Pre-test and post-test were used to collect data. The students were asked to write essays narrating their experiences or describing their observations. Validation of the tests was done by experts before employing these for data collection. Similarly, these tests were also checked for reliability. To ensure maximum objectivity, a rubric was used to assess students' performance in these tests.

Procedure of Experimentation

Problem Based Learning was employed on experimental group students to teach essay writing in English language. The researchers developed a module for teaching essay writing. The teachers and experts improved and validated this module. Before its experimentation on large scale, its validity was also ensured through a pilot study. One teacher from each of the twelve schools was selected who showed their willingness and consent to teach the experimental groups. This was done with the cooperation and help of

their principals who adjusted the class time-table accordingly. A group of teachers including these twelve volunteers was trained for employing PBL through a workshop. Federal Directorate of Education Islamabad collaborated and sponsored this INSET workshop extended upto the duration of three days (Eighteen hours). The teachers were trained using a training module developed for this purpose.

The experimentation for employing Problem Based Learning commenced after the teachers were trained for the task and experimental and controlled groups were formed after pre-test. The controlled group students were taught employing conventional lecture method. This method is used for transformation of knowledge generally in lock step class formation. The students sit in rows in a teacher-centred environment. Most of the time teacher speaks and delivers information to them and they memorize. The experimental group students on the other hand, received PBL instruction in a student-centred environment. They worked in groups to find solutions of authentic problems; construct meaning and improve their learning. The process of PBL implementation is briefly described below:

The learning in PBL classes started when the teacher introduced new topic or idea before the class was divided into groups of four or five students. In the first meeting, the students discussed the topic and defined the problem in clear terms. They also discussed the various ways and tools required to solve the problem. Later on, they studied more at homes and collected information or data helpful to resolve the issue. The second meeting was meant to discuss and share their ideas in groups and to write draft of the essays. The follow up study at home further made them able to find more possible solutions. The final or third meeting provided them with the chance to select the more appropriate and feasible solutions to the same problem after discussion in groups. All the groups, then, shared their findings with the whole class through presentations. The class reached at some agreement by adopting most appropriate solution. The final essay was thus written by the students giving them a sense of satisfaction and achievement. Thus the learning process was completed in three consecutive meetings generally held in three days. The experimentation continued for twenty weeks and post-test was conducted at the end.

Data Analysis

Numerical data was analysed using Inferential and descriptive statistics tools: Mean scores were compared through t-test, paired samples test, and independent samples test; while the performance of various groups was compared using ANOVA and Scheffe tests.

Pre-test

All the students were given a Pre-test at the start of the study. Then they were allocated in experimental group and control group. Both the groups were equated. Table 1 describes the number of subjects in each group at the selected institutions.

The analysis of pre-test data of experimental and control groups is given in table 2

Table 2   *Comparison of Pre-test Mean Scores of Experimental and Control Groups*

	Group	N	Mean	Std. Deviation	t-value	df	Sig. (2-tailed)
Pre-test	Exp	416	6.2464	1.82469	.847	829	.397
	Control	415	6.4336	4.12270			

Level of confidence α = 0.05

Pre-test results given in table 2 indicate that difference of mean scores in not significant (0.397> 0.05) at α = 0.05 level of confidence. Thus experimental and control groups were equated before starting experimentation with PBL.

Evaluation of Experimental and Control Groups through comparing Mean Score in Pre-test and Post-test

The first objective of this study was to evaluate which learner groups out of overall experimental and control groups achieve more after their use of PBL and conventional pedagogy respectively for learning English writing skill. The comparison of Mean Scores in pre-test and post-test was carried out employing paired sample test for experimental and control group separately. Table 3 shows the results for experimental group.

Table 3   *Pre-test and Post-test Comparison of Mean Scores of Experimental Group.*

		N	Mean	SD	t-Value	df	Sig.
Pair 1	pre-test	416	6.2464	1.82469	-40.381	415	.000
	post-test	416	10.4087	2.39479			

a. group = Exp

The difference of mean scores in pre-test and post-test of experimental group is significant (.000) as shown in table 3. It indicates that PBL treatment made students in experimental group earn significantly. To elaborate this point, Paired sample t-Test was employed as given in table 4.

Table 4   *Comparison of Pre-test and Post-test Means Scores of Experimental Group Employing Paired Sample Test.*

				Paired Difference					
				Difference Interval Confidence Level: 95%		t value			
	Mean	SD	Std. Error Mean	Lower	Upper		Df	2-tailed Sig.
pre-test – post-test	-4.16226	2.10231	.10307	-4.36487	-3.95965	-40.381	415	.000

a.   group = Exp

The difference of pre-test and post-test mean scores (4.062) as shown in table 4 is significant (.000). This indicates that students in experimental group learnt significantly

when taught through PBL; this implies that PBL transformed and improved English writing skill of experimental group students

Similarly the pre-test and post-test mean scores of control group students were also compared as given in table 5

Table 5   *Pre-test and Post-test Comparison of Mean Scores of Control Group.*

		N	Mean	SD	t-Value	df	Sig.
Pair 2	pre-test	415	6.4336	4.12270	-.992	414	.322
	post-test	415	6.6352	2.58105			

b.   group = control

The difference of mean scores in pre-test and post-test of control group is not significant (0.322> 0.05) at $\alpha = 0.05$ level of confidence as shown in table 3. It indicates that students in control group could not learn significantly when they were taught English writing skill using conventional teaching method. To elaborate this point, Paired sample t-Test was employed as given in table 6:

Table 6   *Comparison of Pre-test and Post-test Means Scores of Control Group Employing Paired Sample Test*

	Paired Difference							
				Difference Interval				
			Std. Error Mean	**Confidence Level: 95%**		**t-value**		**2-tailed Sig.**
	Mean	**SD**		**Lower**	**Upper**		**df**	
pre-test - post-test	-.20163	4.13889	.20317	-.60100	.19775	-.992	414	.322

b. group = control

The difference of pre-test and post-test mean scores (0.202) as shown in table 6 is not significant (.322). This indicates that students in control group could not learn significantly when taught through conventional method. This implies that conventional method could not transform and improve control group students' English writing skill to a great extent.

Comparison of Experimental and Control Groups' Post-test Mean Score

Objective number one set in the beginning of this study was translated into two research questions: I. How Problem Based Learning affects English writing skill of secondary level students? And, II. Whether PBL is more effective than conventional

pedagogy for secondary level students to learn English writing skill? The first question was addressed through the analysis of mean scores comparison of pre-test and post-test of experimental group as given in tables 2and 3. The second question was addressed through comparing mean scores of experimental and control groups as shown in table 7 below:

Table 7   *Comparison of Experimental and Control Groups' Post-test Mean Score*

	Group	N	Mean	SD	t- Value	Df	Sig.
Post-test	Exp	416	10.4087	2.39479	21.847	829	.000
	Control	415	6.6352	2.58105	.12670		

Level of confidence α = 0.05

Post-test mean score comparison of experimental and control groups given in table 7 indicates that difference of mean scores is significant (.000): Experimental group mean score (10.409) is more than the mean score of students in control group (6.635). H_01 was rejected and thus the alternate hypothesis was adopted. These results show that PBL transformed and improved English writing skill of experimental group more significantly than conventional method did for control group.

Post-test Mean Score Comparison of Experimental Gender Groups

The second objective set in the beginning of this study was to examine how PBL affects English writing skill between secondary level students' gender and local groups. It was translated into third research question stating how PBL affects English writing skill of students in various gender and local groups. The answer was sought through comparing mean scores of experimental group on the basis of groups formed in terms of gender and locality divisions. The male and female were representing gender groups while rural and urban showing localities. Table 8 shows comparison of male and female groups' performance.

Table 8   *Male and Female Groups' Post-test Mean Score Comparison*

	Gender	N	Mean	SD	Std. Error Mean	t-value	df	Sig. 2-tailed
Post-test	Female	422	9.5089	2.74161	.13346	9.740	829	.000
	Male	409	7.5083	3.17016	.15675			

Level of confidence α = 0.05

The female group's mean (9.509) differs significantly (.000) at α = 0.05 level of significance to that of male group (7.508). $H_0 2$ is rejected and thus alternate hypothesis was accepted as the performance of female group was significantly more that of male group.

Local Groups' Post-test Mean Score Comparison

Third research question also aims to measure the effects of PBL for transforming and improving English writing skill of local groups. The assumption was made through third hypothesis stating that there was no evidence of significance between the difference of performance of Secondary level student across rural and urban groups using Problem based Learning and conventional pedagogy. It was sought through comparing post-test mean scores of rural and urban experimental groups as shown in table 9.

Table 9   *Rural and Urban Groups' Post-test Mean Score Comparison*

Locality	N	Mean	S D	Std. Error Mean	t- Value	df	Sig. 2- tailed
Rural Post-test	430	7.4532	2.91690	.14067	-10.945	829	.000
Urban	401	9.6727	2.92569	.14610			

Level of confidence α = 0.05

The Urban group's mean (9.673) differs significantly (.000) at α = 0.05 level of significance to that of rural group (7.453). $H_{0\,3}$ is rejected and thus alternate hypothesis was accepted as the performance of urban group was significantly more than that of rural group. The results indicate that English writing skill of students in urban group(s) improved significantly using PBL than that of studying in rural groups.

Post-test Mean Score Comparison of Various Groups

Impact of PBL as pedagogy applied to various groups was found through the ANOVA statistics. Mean scores of all the groups selected on local and genders basis were compared as given in table 10

Table 10   *Comparison of PBL as Pedagogy on Post-Test Scores through ANOVA Statistics*

		Sum of Squares	df	Mean Square	F	Sig.
Post-test	Between Groups	1883.187	3	627.729	83.557	.000
	Within Groups	6212.904	827	7.513		
	Total	8096.091	830			

Level of confidence α = 0.05

The results in table 10 indicate that there was significant difference of post-test mean scores of all groups when compared with one another: The significance (.000) of difference for F (3, 827) = 83.56 is evident which is found through ANOVA. It indicates that performance of one group is significantly different from the other three groups. This

difference is found when Post Hoc Tests (Scheffe) tests were employed as shown in table 11 below:

Table 11   *Post-test Mean Score Comparison of Groups*.

Dependent Variable	(L) group	(M) group	Difference of Mean (L-M)	Std. Error	Sig.
Post-test	Rural Male	Urban Male	-1.00780*	.26477	.002
		Rural Female	-1.19291*	.27271	.000
		Urban Female	-3.94381*	.25961	.000
	Urban Male	Rural Female	-.18511	.27980	.932
		Urban Female	-2.93601*	.26704	.000
	Rural Female	Urban Female	-2.75090*	.27492	.000

Confidence level at $\alpha = 0.05$

The results found through analysis of data from table 11 are as under:

I.   The significance of compared performance between rural male group and the other groups: i.e. urban male group (.002), rural female group (.000), and urban female group (.000) shows that its performance differed significantly from the others.

II. The performance of urban male group was significantly different from that of the other two groups, namely urban female and rural male having significance (.000) and (.002) respectively. While its performance was not significantly different when compared to that of rural female group (.932).

III. The performance of rural female group was significantly different when compared with the performance of rural male group (.000) and urban female group (.000). Whereas it was not considerably different from the performance of urban male group (.932).

IV. The performance of urban female group differed significantly when compared to other three groups' performance. Significance of mean difference score of urban female group was (.000) when compared with all the other three others groups': rural male, rural female and urban male groups.

V.   Rural male and urban female groups performed differently from the other groups. They were significantly different when compared to the rest of the three groups.

Scheffe Test was applied to see which of the groups' performance was best and which of the groups remained at the bottom in performance. The ranking of groups' performance is shown in table 12.

Table 12   *Homogeneous Subsets Mean Scores Comparison of Groups*

Group	N	Subset for alpha = 0.05		
		1	**2**	**3**
Rural Male	227	6.9774		
Urban Male	203		7.9852	
Rural Female	182		8.1703	
Urban Female	219			10.9212
Sig.		1.000	.925	1.000

Data analysis results shown in table 12 indicate performance ranking of all groups. Urban female group showed best performance with highest mean scores (10.92). The second in ranking was rural female group with mean scores (8.17), urban male group got the third position with mean scores (7.99). The rural male was the lowest achiever with mean score (6.98).

Conclusions

I.   Problem Based Learning improved English writing skill of students at secondary level significantly. It was found more effective pedagogy than conventional method.

II. Female students learnt English writing skill more through PBL than male group of students.

III. Students in urban schools learnt English writing skill more using PBL than their counterparts at rural schools.

IV. Urban female group students learnt more through PBL than the students in other three groups, namely rural female, urban male and rural male.

V.   Rural female and urban male students learnt through PBL with equal ease. Both groups showed similar improvement in English writing skill.

VI. The students in rural male group learnt English writing skill through PBL lesser than the students in other three groups: rural female, urban male and urban female.

Discussion and Recommendations

The findings of this study are similar to those already endorsed by many researchers. Female students showed more progress as compared to male students. It is not new as secondary school results of different boards testify that the performance of female students is better than male students. It may be because females spend more time at home and concentrate on studies. Urban female students showed better performance as compared to

other three groups of students. This indicates that female students in urban area have better facilities and opportunities for studies. Lowest performance of male rural students is due to less opportunities and facilities in rural areas.

PBL has been applied and proved effective and successful teaching-learning method in many disciplines and situations around the world. In the context of English language learning at school level, effectiveness of PBL has been observed as pedagogy in comparison to conventional teaching method. Dods (1997) found PBL effective for enhancing learning of knowledge and its long term retention. Maxwell, Mergendoller, and Bellisimo (2005) also found results analogous to this study when they applied PBL to teach economic students at school level in California through quasi-experimental study. There was modest evidence that overall learning of macroeconomics at the high school level was improved through PBL in comparison to the learning with conventional classes. Gijbels et al (2005) also employed PBL in their empirical and quasi-experimental studies. They found difference in the effectiveness of PBL from case to case in relation to measurement of knowledge levels. When the main constructs were measured in terms of 'understanding,' particularly in case of the second level of knowledge structure in taxonomy, PBL was found most effective as compared to conventional pedagogy.

Sojisirikul and Siriyothin (2010) got similar results from their experimental study on undergraduate English learners at King Mongkut's University of Technology Thonburi (KMUTT). Hussain, Nafees and Jumani (2009) conducted an experimental study on grade XII learners in Pakistani context. They reported PBL casting positive effects on learners' achievement in English literature when compared it as pedagogy with conventional teaching method. PBL enhanced achievement level of the learners and found helpful for teaching literature to L2 learners.

The researchers recommended the following:

I. Problem Based Learning may be used in English language classrooms to enhance English writing skill of the secondary level students.

II. PBL may also be employed for teaching English reading, listening and speaking skills as well.

III. The future studies may be carried out to find the effectiveness of PBL for teaching English language skills and their retention over longer period of time in comparison to the conventional pedagogy.

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