PERCEPTIONS OF PRIVATE SECONDARY SCHOOL TEACHERS IN PAKISTAN REGARDING THE EFFECTS OF STUDENT-CENTERED APPROACH ON THE ABILITIES OF THEIR STUDENTS

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Abstract— the purpose of this causal comparative study was to investigate the perceptions of professionally trained versus untrained private secondary school teachers regarding the effects of student-centered approach on the abilities of their students. A cross-sectional research design was employed to conduct the study and a sample of 105 professionally trained and untrained private secondary school teachers were selected through convenience sampling technique and questionnaire was used as data gathering tool to collect the data. The nominal data were tabulated and tested statistically using Chi-square test to draw results about the null hypotheses. All the hypotheses were supported at P = 0.05 with df = 1. On the basis of this result, it is concluded that private secondary school teachers have the perceptions that student-centered approach contributes towards the enhancement of the students' abilities in various domains.

Index Terms— Approach, student-centered, teacher-centered, professionally trained, untrained, private school, perceptions

INTRODUCTION

THE role of school has changed from a passive transmitter of culture to an active leading agency of social reforms. Teaching has become more complex in today's dynamic society and demands more innovative practices from the teachers to carry out it in its real sense than it was ever thought (Harreaves, Goodson, as cited in Lingard, Hayes, Mill & Christie, 2003; Knight, 1998). Many global issues such as building relationship among the communities and maintaining global peace have drastically added new dimensions to the education regarding the social development of students and enhancing their critical thinking skills to enable them to understand the world they live in a better way (Lingard et al.). The school in such situations needs to maximize academic and social learning of the young people by creating and sustaining the learning environment.

Dewey, a well-known progressive educational philosopher of the twentieth century was a proponent of democracy in education and emphasized the teachers to give freedom to the students to learn on their own rather than imposing their own learning on them. For this purpose he suggested the teachers to provide the students with such learning environment where they can interact with each other and learn through social interactions (Chomsky, 2004). Dewey portrayed the classroom as a mirror of society and a laboratory for real life where the students develop their skills to solve their problems in practical situations. The teacher's responsibility is to facilitate the students' learning based on democratic principles and enable them to make decisions for their own learning in the class (Arends, 2004). The essence of pragmatic philosophy of education is to find ways to draw out the potential of the individuals. This idea is consistent with the psychodynamic view of Fraud, who stressed on the importance of students' freedom to express themselves in the working situations to release their impulsive energy in creative ways (Arends, 2004; Knight, 1998).

Rippa (1992) reports that Dewey was detested with the kind of students' learning in which the teacher occupies the classroom and transfers information from the textbooks to the students. This type of classroom practice alienates the students from learning and acquaints them with the information, which is not sufficient to solve their problems in their practical lives. He simply replaces this narrow approach to education with a progressive thought and advocates that learning is a self-motivated, enjoyable and student-centered activity (Rippa, 1992). The student-centered approach to learning develops students' abilities to cope with the challenges inside as well as outside of the school and stimulates students to think critically and reflectively (Sachs, 2003; Oser, as cited in Eggen & Kauchhack, 1999; Rogers, as cited in Zimring, 1997).

Since the early 20th century, the trend of teaching all over the world has shifted drastically from providing information to students to develop their higher-order thinking abilities and problem-solving skills (Arends, 2004). Using these abilities and skills, students can solve their own problems and become self-directed learners.

Unfortunately the education system in Pakistan still rotates around transmission paradigm of teaching learning in which the students depend on the teachers to provide the information from the textbooks. The students copy down what the teacher writes on the blackboard in the classroom without any critique and they produce the same in the examination verbatim (Rehmani, 2005). This traditional practice curtails the problem-solving ability and creativity among the students.

TEACHING-LEARNING IN THE CONTEXT

Currently, the major concern of teachers and teacher educators is the decline of students' learning over time in which the

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students memorize the given information rather than creating meaning out of a situation on their own. The educational organizations globally have set higher-order educational goals focusing on developing independent learners and these goals can be achieved through the active involvement of the students in their own learning (Eggen & Kauchak, 1999). The teacher-centered approach to teaching has failed to achieve such educational goals.

Education system in Pakistan does not provide education to the students according to the demands of the dynamic society and the teachers in Pakistani schools still use teacher-centered or subject-centered approach of teaching rather than using student-centered approach. This out-dated model of teaching hampers students' creativity and their ability of expression. They are considered as blank slates or sponge whose sole responsibility is to absorb what the teacher delivers in the classroom (Siddiqui, 2007; Thomas, 2006). Most of the teachers in Pakistan admit the positive impact of student-centered approach on the holistic development of the students but they are not motivated to implement it in their classes (Thomas, 2006). Consequently, the quality of education in Pakistan is not encouraging. Hoodbhoy (1998) reflects the educational scenario in Pakistan and comments that:

> Our [sic] education system produced the best breed of parrots in the world. These amazing creatures are able to reproduce staggering amount of information from their memory books. In an international competition, these hafiz-e-science [italic added] produced by Pakistani school would surely walk away with all prizes (p.8).

This statement mirrors the educational philosophy of Pakistan, which is disappointing. The process of schooling mostly starts from class 1 where the innocent minds are forced to learn the facts and figures through cramming. This 'academic-minus-intellectual model' (Siddiqui, 2007, p.117) prepares the students for examination rather than developing their problem-solving skills (Bregman & Mohammad, 1998). Many children in schools memorize irrelevant facts, which their counterparts in other countries can simply look up in an encyclopedia or on a computer CD-ROM. The quantum of skills learned by a child is so small that after completing the fifth grade, they cannot meet the international standards of being literate (Hoodbhoy, 1998).

The researcher had a chance to work with both professionally trained and untrained teachers in different schools in Pakistan. Observations and discussions with these teachers revealed that both the trained and untrained teachers were familiar with the student-centered approach to teaching-learning process but they did not implement it in their classroom teaching. To them this teaching approach gives much freedom to the students and they opined that it does not contribute towards the learning of the students. The researcher learned from these discussions that the teachers had limited their views of learning only to memorization of information and were not willing to see it as a process that develops independent learners. To them developing critical and independent learning skills is waste of time. The best teacher to them is the one who shows the best academic results. As a result, the children in these schools are reasonably competent in rote learning of facts and figures (Hoodbhoy, 1998; Siddiqui, 2007).

The researcher investigated the perceptions of professionally trained versus untrained teachers regarding the effects of students-centered approach on the abilities of their students to coin some contextualize and indigenous research driven recommendations for the teachers and teacher educators to place student-centered approach in their schools. Thus the classroom will become a real learning place for the holistic development of the students, which will lead the schools to produce the problem-solvers and critical thinkers rather than the rote learners.

DIMENSIONS OF STUDENT-CENTERED APPROACH

Student-centered approach is a pedagogical framework that positions students at the heart of teaching learning process as an active constructor of knowledge rather than passive recipient of information given in the textbooks. This approach defines teacher's role as facilitator to create conducive learning environment for the students where they engage themselves in creating their own knowledge (Mahendra, Bayles, Tomoedo & Kim, 2005). In the student-centered approach inquiry learning, discussion, cooperative learning, experiential learning and individual learning strategies can be used. All these learning strategies contribute towards the development of students' abilities in various domains (Eggen & Kauchak, 1999; Langman et al., 1995).

The inquiry strategy improves students' ability to do an in-depth investigation of a topic and enable them to take responsibilities for their own learning. In this way students can develop their independent learning skills, analytical skills, question generating skills and problem solving skills which they use to solve their day to day problems as well as they construct their own knowledge (Arends, 2004; Eggen & Kauchak, 1999; Langman et al., 1995; Morris, 2004; Prasad, 1999; Woolfolk, 2007).

In classroom discussions students are engaged in verbal exchange and expression of thoughts on a particular topic which help to develop the students' skills of analytical thinking, interpretation of situations and decision making (Arends, 2004; Woolfolk, 2007). The students think critically and reflect on an issue under discussion, which stimulates their ability to pose questions and analyze the information to draw the solid conclusions (Rao, 2003).

Cooperative learning strategy is the arrangement of the students in such a way that they work with each other cooperatively for achieving the learning goals set by the teachers (Arends, 2004; Langman et al., 1995). Cooperative learning aims at achieving two interrelated goals and the first goal is to improve students' performance on the academic tasks. Both the low and higher achievers benefit out of it (Arends, 2004). The second goal of cooperative learning is to develop the attitudes of the students to tolerate and accept differing ideas in the groups and appreciate each other's talents and skills used for

the accomplishment of the task. In this way they can develop their interpersonal skills, which is very critical for someone to relate himself/herself to the social system in his/her daily life (Arends, 2004).

Individual study is an independent learning strategy in which students study a problem individually and develop the independent learning skills, time management skills as well as it builds students' confidence of working independently (Good & Brophy, as cited in Langman et al., 1995; Scott, Buchanan & Haigh, 1997).

Similarly in experiential learning, the students learn from their experiences and subsequently from the reflection on their experiences (Arends, 2004; Langman et al., 1995). These experiences and reflections help students to develop their reflective and metacognitive skills (Santos, 2005).

RESEARCH METHODOLOGY

To conduct this research study, a questionnaire on the nature of Likert scale was designed to collect the data that was best suited to gather the perceptions of the research participants (Burns, 2000). This was a five-point attitudinal scale in which the participants indicated their degree of agreement against each statement using Strongly Agree (SA), Agree (A), No Opinion (NO), Disagree (DA) and Strongly Disagree (SD). The teachers' responses were later on converted into numerical scale to test statistically.

The questionnaire had two parts. The part 'A' comprised of a form related to the biographical profile of the participants whereas part 'B' of the questionnaire was based on the statements related to each null hypothesis used in the research study. There were seven statements regarding each hypothesis, which were taken from different research studies. Through this part of questionnaire, the perceptions of the teachers were investigated.

Using convenience-sampling technique (Gay & Airasian, 2003), seven private secondary schools in Karachi and five in Gilgit-Baltistan were selected. These schools were run by different community organizations. The researcher developed a list of the schools on the basis of his experience as a teacher in some of the schools in Karachi and in the Gilgit-Baltistan where he had observed that student-centered approach was used in some of these schools for teaching-learning interplay. On the basis of this observation, the researcher generalized that student-centered approach would be used in other schools run under the same administration. The teachers with professional qualifications such as Bachelor in Education (B.Ed) and Master in Education (M.Ed) were considered as professionally trained teachers and the teachers without such professional qualifications were considered as untrained teachers in this research study.

The questionnaire was distributed among the professionally trained and untrained teachers in these schools who taught English, Mathematics, Science subjects and Pakistan studies at the secondary levels. In Karachi, these schools were approached with a letter requesting for the principals' permission to distribute the questionnaire in the schools. The consent letter was attached with each questionnaire, which stated the purpose of conducting the research study in the school. The research participants read it and signed to show their consent to participate in the study.

Questionnaires were also administered in five schools in the Gilgit-Baltistan of Pakistan after taking permission from the principals through telephonic contact with them. The questionnaires were then sent to the principals via currier who returned them after completing with the teachers.

RESULTS OF THE QUESTIONNAIRE

The responses of the participants allowed categorizing the nominal data into high level of agreement and low level of agreement, which resulted in using Yates Correction formula to analyze and interpret the data. The degree of freedom (df) in each case was 1. The level of agreement above 50% was categorized into high level and below 50% was categorized in low level of agreement. The Chi-square ($\chi 2$) value was interpreted using Chi-square tables at P = 0.05 level of significance (Burns, 2000; Brown, 2004).

TEACHERS' PERCEPTIONS REGARDING THE EFFECTS OF INQUIRY AS A STRATEGY

The perceptions of teachers regarding the hypothesis one was tested and analyzed as:

Categories	High level of agreement (23-38)	Low level of agreement (7-22)	Total
Trained teachers	46	7	53
	87%	13%	100%
Untrained Teachers	43	9	52
	83%	17%	100%
Grand total	89	16	105
	85%	15%	100%

The calculated $\chi 2$ value for this hypothesis was 0.101 which is not greater than the critical value of 3.841 at P = 0.05 level of significance (Gay & Airasian, 2003) with df = 1. (See appendix A for the procedure of $\chi 2$ calculations) Therefore the null hypothesis there is no significant difference in the perceptions of professionally trained and untrained teachers regarding the effects of inquiry as a strategy to enhance the abilities of their students was not rejected but accepted. In this hypothesis 85% of trained and untrained teachers showed a high level of agreement to each statement of hypothesis and no significant difference exists between the perceptions towards the hypothesis.

TEACHERS' PERCEPTIONS REGARDING THE EFFECTS OF DISCUSSION AS A STRATEGY

The perceptions of teachers regarding the hypothesis two was tested and analyzed as:

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Categories	High level of agreement (23-38)	Low level of agreement (7-22)	Total
Trained teachers	50	03	53
	94%	6%	100%
Untrained Teachers	47	5	52
	90%	10%	100%
Grand total	97	08	105
	92%	8%	100%

The calculated $\chi 2$ value for this hypothesis was 0.157 which is not greater than the critical value of 3.841 at P = 0.05 level of significance with df = 1. Therefore the null hypothesis there is no significant difference in the perceptions of professionally trained and untrained teachers regarding the effects of discussion as a strategy to enhance the abilities of their students was not rejected but accepted. It was because 92% of both the trained and untrained teachers have shown high level of agreement to the hypothesis and no significant difference is exited in the perceptions.

TEACHERS' PERCEPTIONS REGARDING THE EFFECTS OF COOPERATIVE LEARNING AS A STRATEGY

The perceptions of teachers regarding the hypothesis three was tested and analyzed as:

Categories	High level of agreement (23-38)	Low level of agreement (7-22)	Total
Trained teachers	51	02	53
	96%	4%	100%
Untrained Teachers	46	06	52
	89%	12%	100%
Grand total	97	08	105
	92%	8%	100%

The calculated $\chi 2$ value for this hypothesis was 1.282 which did not exceed the critical value of 3.841 at P = 0.05 level of significance with df = 1. Therefore the null hypothesis there is no significant difference in the perceptions of professionally trained and untrained teachers regarding the effects of cooperative learning as a strategy to enhance the abilities of their students was not rejected but accepted. It was because 92% of both the trained and untrained teachers have shown high level of agreement to the hypothesis

TEACHERS' PERCEPTIONS REGARDING THE EFFECTS OF INDIVIDUAL STUDY AS A STRATEGY

The perceptions of teachers regarding the hypothesis four was tested and analyzed as:

Categories	High level of agreement (23-38)	Low level of agreement (7-22)	Total
Trained teachers	44	09	53
	83%	17%	100%
Untrained Teachers	41	11	52
	79%	21%	100%
Grand total	85	20	105
	81%	19%	100%

The calculated $\chi 2$ value for this hypothesis was 0.086 which is smaller than the critical value of 3.841 at P = 0.05 level of significance with df = 1. Therefore the null hypothesis there is no significant difference in the perceptions of professionally trained and untrained teachers regarding the effects of individual study as a strategy to enhance the abilities of their students was not rejected but accepted. It was because 81% of both the trained and untrained teachers have shown high level of agreement to the hypothesis.

TEACHERS' PERCEPTIONS REGARDING THE EFFECTS OF EXPERIENTIAL LEARNING AS A STRATEGY

The perceptions of teachers regarding the hypothesis five was tested and analyzed as:

Categories	High level of agreement (23-38)	Low level of agreement (7-22)	Total
Trained teachers	51	02	53
	96%	4%	100%
Untrained Teachers	47	5	52
	90%	10%	100%
Grand total	98	07	105
	93%	7%	100%

The calculated $\chi 2$ value for this hypothesis was 0.648 which is not greater than the critical value of 3.841 at P = 0.05 level of significance with df = 1. Therefore the null hypothesis there is no significant difference in the perceptions of professionally trained and untrained teachers regarding the effects of experiential learning as a strategy to enhance the abilities of their students was not rejected but accepted. It was because 93% of both the trained and untrained teachers have shown high level of agreement to the hypothesis.

DISCUSSION

The analysis of data for each hypothesis has shown that there is no significant difference in the perceptions of professionally trained versus untrained teachers regarding the effects of inquiry learning, classroom discussions, cooperative learning, individual studies and experiential learning strategies on the development of students' abilities in various domains such as critical thinking, reflective thinking, analytical

thinking as well as developing the independent learning and problem-solving skills in the students of secondary schools.

The null hypotheses in each case was supported in this study may be due to 'type II error'-a testing error occurs when the null hypothesis is supported due to some chance factors but in reality it should not have been supported (Fraenkle & Wallen, 2006). In this study all the hypotheses were supported because the sample size was very small. In this study 105 participants took part, which was actually a very small sample size. The biographical profile of the participants revealed that 47% of the trained teachers were involved in the classroom teaching whereas 53% of the trained teachers were involved in management in their schools. Similarly 88% of the untrained teachers were classroom teachers. It is crystal clear that a small portion of the sample is the representative sample who teach in the classroom and it was very difficult to get the real picture related to the effects of different student-centered strategies towards the abilities of students.

The overwhelming majority of teachers indicated in their biographic profile that they taught in the overcrowded classes. In the true sense these student-centered strategies such as inquiry learning, classroom discussions, cooperative learning, individual studies and experiential learning strategies can best be suited where there is limited number of students. All these strategies need teacher's facilitation and in the classroom where there is larger number of students, the teachers cannot pay equal attention to every individual student. The responses of the teachers for each hypothesis indicate that they know about the importance of student-centered approach for the development of the students but they do not implement it in their schools due to overcrowded classrooms. The biographic profile also indicated that most of the schools organized short term training programs for both the trained and untrained teachers, which might have developed the conceptual understanding of the teachers related to the importance of progressive nature of teaching learning processes and the teachers might have displayed their understanding about student-centered approach from their general knowledge which they developed from these short courses. This is highly consistent with the idea of Siddiqui (2007) who reflects that due to short training programmes teachers may learn several jargons about teaching learning but they cannot implement them in the actual classroom setting.

Most of the teachers indicated that they have hardly one to two free periods a day and this confirms that they did not use any of student-centered strategy as these strategies need a lot of plans to implement them in their actual sense. In this case the teachers did not have time to plan and implement this progressive approach to teaching learning processes.

OUTCOMES OF THE STUDY

- Student-centered approach is not employed in the private secondary schools and teacher-centered approach is still a dominant approach in these schools.
- In private secondary schools, the majority of the trained teachers are involved in the school management whereas the majority of untrained teachers are involved in classroom teaching.
- Both the professionally trained and untrained teachers understand the concept of student-centered approach but overcrowded classrooms is the factor that inhibits the teachers from using this approach.
- The student-centered approach develops inquiry skills, higher-order thinking skills, interpersonal skills, research skills and reflective skills of students, if implemented in the school.

CONCLUSION

The empirical evidence in the research study unveiled the reality that both the professionally trained and untrained teachers perceive that student-centered approach contributes towards the enhancement of students' abilities in the secondary school setting. Through this approach higher-order thinking skills among the students can be fostered which the students would employ to solve their day-to-day problems within school as well as in their daily life. However, the descriptive statistics related to the biographic profile of the teachers revealed that they do not use this approach to teaching learning interplay in their schools due to their teaching in overcrowded classroom and their heavy workload which do not allow them to use this approach.

Teachers' pedagogical skills related to the implementation of this progressive approach can be fostered through school-based teacher education programmes such as professional development sessions, mentoring and conferences at the school level which will develop the teacher's confidence to make classroom a real learning place for the students through employing innovative approaches to teaching learning. The school principals can ensure the effective use of this innovative approach to teaching learning through intensifying the follow-up mechanism.

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Appendix A

Procedure for $\chi 2$ calculations, which was used for testing all the null hypotheses

Categories	(a) High level of Agreement	(b) Low level of Agreement	Total
	(23 to 38)	(7 to 22)	
Trained teachers	46 87%	7 13%	53 100%
Untrained teachers	43 83%	9 17%	52 100%
Grand total	89 85%	16 15%	105 100%

Professionally trained teachers:

Expected values for cell (a) = $\frac{\text{Row total} \times \text{Column Total}}{\text{Grand Total}}$

$\frac{53 \times 89}{105}$

= 44.92

Expected values for cell (b) = $\frac{\text{Row total} \times \text{Column Total}}{\text{Grand Total}}$

$\frac{53 \times 16}{105}$

= 8.08

Untrained Teachers:

Expected values for cell (a) = $\frac{\text{Row total} \times \text{Column Total}}{\text{Grand Total}}$

$\frac{52 \times 89}{105}$

=44.08

Expected values for cell (b) = $\frac{\text{Row total} \times \text{Column Total}}{\text{Grand Total}}$

$\frac{52 \times 16}{105}$

=7.92

Categories	High level of agreement		Low level of agreement	
Trained Teachers	O 46	E 44.92	O 7	E 8.08
	(O-E) (46-44.92)	[O-E-0.5] 2 [1.08-0.5] 2 (0.58) 2 0.34	(O-E) (7-8.08)	[O-E-0.5] 2 [-1.08-0.5] 2 (0.58) 2 0.34

Untrained Teachers	O 43	E 44.08	O 9	E 7.92
	(O-E) (43-44.08)	[O-E-0.5] 2 [-1.08-0.5] 2 (0.58) 2 0.34	(O-E) (9-7.92)	[O-E-0.5] 2 [1.08-0.5] 2 (0.58) 2 0.34

df= 1, Yates Correction is applied to calculate $\chi 2$ value (Burns, 2000 ; Brown, 2004).

Chi-square ($\chi 2$) = $\frac{\sum (O-E-0.5)\ 2}{E}$

$$= \frac{0.34}{44.92} + \frac{0.34}{8.08} + \frac{0.34}{44.08} + \frac{0.34}{7.92}$$

Adding $\chi 2$ values = 0.008+0.042+0.008+0.043

= **0.101**