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International Journal of Innovation in Teaching & Learning (IJITL)

IJITL is an online open access, peer reviewed and bi-annual journal. There is dearth of quality research journals in Pakistan. Therefore, for the encouragement of research activities and publication of research work by the faculty members and research students, the Department of Education, International Islamic University Islamabad has started the research journal. The aim of the Research journal is to promote research activities and publish original and quality research work in different fields of education.

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Scope includes but is not limited to innovation in the fields of:

- Curriculum
- Curriculum design
- Evaluation
- Assessment
- Educational Psychology
- Teacher Education
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EFFECT OF IN-SERVICE TEACHER TRAINING OPPORTUNITIES ON PROACTIVE BEHAVIOR OF THE TEACHERS AT HIGHER LEVEL

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Abstract

To meet with the new challenges related to the teachers and teaching system, we need to develop an effective training system for the teachers. So keeping the situation in focus the research was designed to achieve the objective to compare the perception of male and female faculty members towards the teacher training opportunities and the employee's proactive behavior. Further to assess the effect of teacher training on proactive behavior of the teachers. The design of the study was descriptive. 11,092 teachers serving as the faculty members at higher level educational institutions were considered as the population of the study. Disproportionate stratified sampling technique was used to select the respondents for the purpose of data collection. 154 employees were selected as the sample of the study. The data was collected with the help of two sets of questionnaires designed to assess the in-service teacher training (IV) and proactive behavior (DV) of the respondents. The collected data was analyzed with the help of Statistical Package of Social Sciences 21 Edition. The t test and regression analysis were used in the process of analysis. It was found that there was no statistical difference between the male and the female employees regarding in-service training and proactive behavior. However in-service training had the significant effect on the development of proactive behavior of the employees as well. Further it was found out that the professional competence had the strongest effect on the development of proactive behavior. On the basis of findings it is recommended that training has to be linked with the daily routine problems and issues so that the employees may find it useful in their own situations.

Key Words: *Teacher Training, In-Service Training, Proactive Behavior and Higher Education*

1. Introduction

Teachers are known as the builders of a nation. In that perspective they have to deal with a responsible and sensitive position in any country. The civilized nations always pay respect to their teachers and empower the profession of teaching with all needed facilities to face the challenges of the every new day. Teacher training programmes are an example of such facilities. Training programmes are very important in all the

organizations. Institutions and organization use such teacher trainings to develop their human resource according to the current needs. Teaching as the most dynamic profession also needs the trained and skilled manpower to provide quality production. With every new day researches, concepts and theories are emerging and we need to equip our teachers with these new concepts and theories of learning. In order to do so teacher training programmes are organized. There are two types of such trainings, one is pre service and the other is in service. Pre service is a part of job requirement to be attained before coming to the profession.

For the provision of the pre service teacher education there are a number of universities which are offering the courses related to B. Ed, M.Ed, BS. Ed etc. In Pakistan at the time of the teacher selection at public sector for schools and colleges it is one of the requirements that the teacher must have completed the required pre service course. On the other hand in-service training is the helping tool provided by the management of the organization in order to keep the employees well equipped with the latest skills. Keeping in view the available resources and time every educational institution arranges to offer such in service training programmes within their institutions. In this regard the higher education commission has developed a separate division that is solely responsible for the training of the faculty members during their service. This division is known as “learning innovation division” (LID). LID is arranging continuous long and short term courses for the fresh faculty members to create a hub for the training. However higher level there is need for more efforts because the teachers at higher level are appointed by the universities according to their rules and regulation. Most of the time it is observed that highly qualified teachers with specified skills in their areas are not aware of the teaching skills and its complexities. So to train qualified teachers in the teaching field along with the in-service training is arranged by the HEC and periodically by the universities collectively. According to Kahn (1990) the In-service training gives you an opportunity to improve and develop your practical teaching, coaching, and counseling and/or management skills with the professional support of experts.

The provision of in-service training is the job of the human development departments in the institution. Teacher training is equally important and essential for all the levels of education, however when it is related to the higher level of education it becomes more significant. The higher level education is an imperative stage that provides the skilled manpower for the different phases of life. The quality teaching at this stage

directly affects the quality of manpower in the country. Developing countries need to provide special attention to this above mentioned areas in order to develop their skilled manpower. Thus the research is specially designed to assess the in-service teacher training opportunities provided to the teachers serving at the higher level of education. Further the researcher is also interested to check the effect of in-service teacher training opportunities on the development of proactive behavior of the teachers.

1.1 Research Objectives

The research was based on the achievement of the following objectives:-

1. To compare the perception of male and female faculty members towards the teacher training opportunities.
2. To compare proactive behavior of the male and female faculty members.
3. To assess the effects of teacher training opportunities on proactive behavior of the teachers.

1.2 Research Hypotheses

1. There is no difference in the perception of male and female faculty members towards the teacher training opportunities.
2. There is no difference in the proactive behavior of the male and female faculty members.
3. There is a positive effect of teacher training on proactive behavior of the teachers.

1.3 Significance of the Study

The research has addressed the most important issue of the field of education. Teachers and their competence is the back bone of any education system. The quality of teachers is the assurance for the quality education. The teacher training system is a continuous need of the time. The world is changing with every new day and it is the professional responsibility of the teachers and the educational institution to upgrade their skills and competencies. Thus the teacher training programmes need special focus at all levels of education. However at higher level it becomes more important. As the higher level education is the stage that produces the refined manpower for the country. Here the in-service training is needed to keep the system alive and able to meet the new challenges

of the time. Thus the research would be significant as it will highlight the importance of such trainings. It would also help to understand the areas of these trainings that need to be focused by the organization in order to get desired results. Further it would let us know about the impact of such trainings on the behaviors of the teachers and the change in their pro active behavior. The study would suggest the improved way of planning these in-service training so that maximum results can be obtained.

2. Literature Review

In every system of education, teacher is one of the substantial components. Excellence of plans, success of process executed, and surety of desired outcomes greatly depend on teacher. Teacher is in fact, operator of the teaching-learning process. Keeping in view this imperative role of a teacher in almost all of countries of the world, teachers are provided both pre-service and in-service training packages by educational management. These kinds of trainings equipped teachers with theoretical aspects of teaching profession and practical implications of the theory into the profession intelligently.

Quality of education in the country lies mainly in the quality of teachers available (Iqbal, 1996). Self-efficacy of a teacher is reflected through their perceptions, actions, and behavior which serve like indicators for their performance in classroom situation (Bandura, 1994). In the words of Jerald (2007) people with higher level of self-efficacy incorporate their best ideas, show a realistic planning and establish a close connection with their students.

Bockerts, Pitrich & Zeidner (2000) deduced from their study that effective teaching strategies could only be implemented by effective and experienced teachers in class. Kazmi, Pervez and Mumtaz (2011) recommended the in-service teacher training as a condition for getting logical and innovative teachers in education system of Pakistan. Effective teacher training is unavoidable for producing a good teacher who is well-trained in respective domain and capable of achieving educational and organizational goals (Pintrich& Schunk, 2002).

With reference to Pakistan, the need for a professional and trained teacher was realized first time in the report of National Commission on Education, in 1959 that quality in education can never be achieved without making teachers an essential component. Teacher education should be an integral and regular feature of the education system of

Pakistan (NCE, 1959). The Pakistani system of education can only be flawless through resetting, and re-evaluating with critical approach (Education Policy of 1972-80). For the sake of recruitment and selection of well-qualified and skillful teachers “education cadre” was suggested and along with that importance of selected teachers’ regular in-service trainings was recommended by the National Education Policy 1992.

Higher Education Commission (HEC) been proposing, offering and organizing number of teacher training programmes aimed at various themes like development of classroom management skills, communication skills, and general behavioral aspects like intrinsic motivation of teachers, teacher-students relationship and assessment parameters in education. For the sake of training of teachers at higher education level, the department of learning innovations has been specifically directed by HEC to launch such kinds of platforms.

More importantly three months residential teaching training program is being offered by Learning Innovation department (LI) since 2004. Similarly, Management Unit for System and Training (MUST) was also launched for this purpose by the University of Peshawar in 1985. In 1987, this institute was recognized and renamed as “Staff Training Institute” (STI). Main theme announced by the head of STI was to provide in-service training for a year to knowledge the teachers consisting largely on practical activities like knowledge delivery, assessment of students and computer competencies.

There is no homogeneity among teachers at all levels of institutes. They come up with their unique biographies to the class. In this perspective obviously they need to have different training during these jobs. Kahn (1990) reviewed teachers of university of Botswana and got to know about their opinion regarding teacher education provided. According to the data collected by the Kahn (1990) teachers discussed their concerns with problems like classroom control, lesson presentation, establishing targets for work, dealing with slow learners and coping with latest innovations in field of science and technology. On the other hand they pointed out major areas of in-service training such as lesson planning, setting of work schemes assessment of students and answering skills to questions in the class etc.

Duquette (1993) defined education as a combination of positive approach, mature reasoning, insight, immensity and professionalism. Providing firsthand knowledge in in-

service teacher training programs is more effective way of quality education (Duffy, 1993).

An experimental research was conducted by Sudanse and reported by Shommo (1995) aimed at development of critical thinking in Home Economics teachers. The purpose of the study was to modify and enable human behavior for resolving day to day issues with multiple approaches. Training focused on specific approaches for the sake of change in human values (Harber, 1987). It is an open fact nowadays that in teacher training programs practical strategies had magical effects for skill development and value establishment. In light of various studies, in-service training should focus on improving teacher's attitudes and styles rather than theoretical content of teacher education.

2.1 Theoretical Framework

The reflective practice has become a dominant paradigm in language teacher education research and programmes worldwide. But it is not an innovation in teaching. It has its roots in the work of a number of educational theorists and practitioners. Most definitions on reflective thinking found in the literature of teacher education are based on Dewey's inquiry oriented concepts. In the 1980s, Dewey's foundational aspects on reflection were further extended by the American sociologist Donald A. Schön. Later on, in 1991 Michael J. Wallace described Schön's critique in a more explicit way (Wallace, 1991).

Wallace (1991) presented the "Reflective Model" for the in-service training of the teachers. It is a cyclical process. It is a continuous process that is interlinked with different elements. These elements are "Received knowledge, previous experiential knowledge, Practice, Reflection, Professional competence". This model is effective for pre service and in services both types of programmes. However in the present research we have used it as a theoretical frame work for the assessment of in service teacher training. The base line of the model is the knowledge of the employees. This knowledge is divided into two parts. One is the received knowledge and the other is the previous experiential knowledge. It indicates the process of learning through assimilation and accommodation. The employees bring their own skills to the work place than certain skills they learn from their work environment. The both sources of knowledge develop a combine system of knowledge that leads to the practice and reflection. Practice is the application of learned knowledge and

reflection is the further stage of practice that also includes understanding. All these things lead to the professional competence. Thus the same five elements were taken for the theoretical framework of the research and the tool was developed according the same five sections.

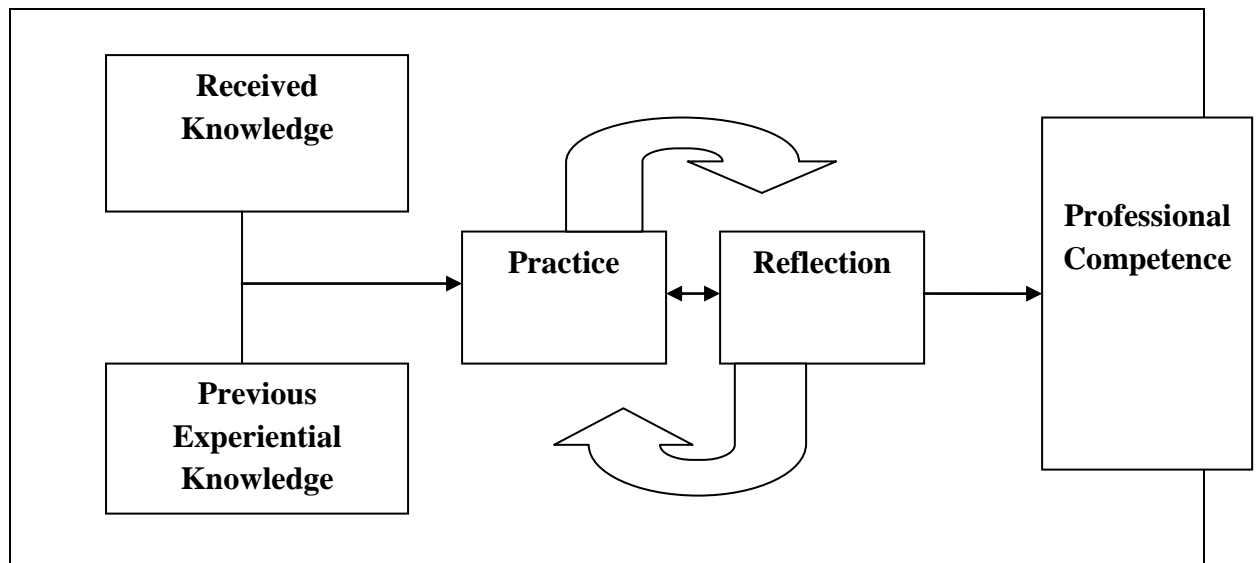


Fig. 1 Reflective Model by Wallace (1991)

2.2 Operational Definitions

a. In service training

In service training refers to the training programme that is offered to the employees after joining the organization as an effort to train the employees related to their job skills. It focuses on development of job related skills, competencies and awareness related to the new technologies and researches in the field.

b. Received Knowledge

“Received knowledge is the vocabulary of the subject and the matching concepts, research findings, theories and skills which are widely accepted as being part of the necessary intellectual content of the profession” (Wallace, 1991).

c. Previous experiential knowledge

“The knowledge in action through practice of the profession is known as previous experiential knowledge” (Wallace, 1991).

d. Practice

“Implementation of the learned theories and skills is known as practice in reflective model” (Wallace, 1991).

e. Reflection

“Reflection is the feedback on the practice of profession as a way of developing expertise in it” (Wallace, 1991).

f. Professional competence

“The term, professional competencies, refers to all the knowledge, skills, and dispositions that teachers need to develop and master. It may also include the development of self-evaluation and self-improvement ability in professionals” (Wallace, 1991).

g. Proactive behavior

Pro active behavior refers to act before the activity. It is action in advance to control the situation. It is a result oriented behavior instead of waiting for the situation and adjusting according to it.

3. Methodology

3.1 Research Design

The research was based on the quantitative analysis approach. The research focused on the collection of data through questionnaires and its analysis with the help of statistical tests. By nature it was a survey based descriptive research.

3.2 Population

All the teachers serving at the higher level of education in Islamabad were considered as the population of the research. There were 11,092 faculty members serving in the different higher education institutions in Islamabad. Among which 7,640 were male and 3,452 were female employees.

3.3 Sample

By considering the male and female employees as the two major strata, disproportional stratified random sampling technique was selected to draw the sample for the research. 154 teachers were selected as the sample of the research. It was specially considered to maintain an almost equal number of male and female respondents to avoid gender biasness. Thus 75 respondents were male while 79 respondents were female faculty members.

3.4 Instrument

Two sets of questionnaires were used by the researcher in order to collect data. The questionnaire related to the independent variable (In-Service teacher training) was based on five sections related to the five sub variables related to the in-service teacher training. These sub variables were received knowledge, previous experiential knowledge, practice, reflection and professional competence. In total there were 25 items in the research questionnaire and it was rated on 5 point scale. To address the Dependent variable (Proactive Behavior) another questionnaire was developed that was based on 8 items.

3.5 Data Collection

The data was collected by the researcher personally and it was analyzed with the help of Statistical package of social sciences (SPSS). The t test and regression analysis were majorly used in order to analyze the data. Thus on the basis of the findings of the study the recommendation were suggested.

4. Data Analysis

Research Objectives	Research Hypothesis	Analysis
To compare the perception of male and female faculty members towards the teacher training opportunities.	There is no difference in the perception of male and female faculty members towards the teacher training opportunities.	Quantitative t test
To compare proactive behavior of the male and female faculty members.	There is no difference in the proactive behavior of the male and female faculty members.	Quantitative t test
To assess the effect of teacher training opportunities on proactive behavior of the teachers.	There is a positive effect of teacher training on proactive behavior of the teachers.	Quantitative Regression

4.1 Findings/ Results

Table No 4.1. Cronbach's Alpha Reliability of the Scales

<i>In-Service Training Assessment</i>	<i>N of items</i>	<i>Cronbach's Alpha</i>
	25	.87
<i>Proactive Behavior</i>	8	.82

It has been found from the Table No. 4.1 that the Cronbach's Alpha reliability of the

In-Service training assessment scale was .87 and the Cronbach's Alpha reliability of the scale developed to assess proactive behavior was .82. That shows that the both scales were reliable and can be used in the future researches with a fair amount of confidence.

Table 4.2. Correlation between In-Service Training Assessment Scale and Proactive Behavior

	In-Service Training Assessment	Proactive Behavior	Total
In-Service Training Assessment	1	.174*	.935**
Proactive Behavior	.174*	1	.513**
Total	.935**	.513**	1

*. Correlation is significant at the 0.05 level (2-tailed).

**. Correlation is significant at the 0.01 level (2-tailed).

Table, 4. 2 shows that the both scales were correlated at 0.05 level of significance as well.

Table No. 4.3 Comparison between male and female employees (t test)

Variable		N	Mean	t value	Df	Sig.
Received Knowledge	Male	75	17.56	1.54	152	.12
	Female	79	16.59			
Variable		N	Mean	t value	Df	Sig.
Experiential Knowledge	Male	75	13.16	-.38	152	.70
	Female	79	13.37			
Variable		N	Mean	t value	Df	Sig.
Practice	Male	75	15.85	.24	152	.80
	Female	79	15.73			
Variable		N	Mean	t value	Df	Sig.

Reflection	Male	75	22.15	-.83	152	.40
	Female	79	22.65			
Variable		N	Mean	t value	Df	Sig.
Professional Competence	Male	75	24.57	-.67	152	.50
	Female	79	25.00			

P<0.05P<0.01*

Table No 4. 4Comparison between male and female employees (t test)

Variable		N	Mean	t value	Df	Sig.
In-Service Training Assessment	Male	75	93.29	-.02	152	.98
	Female	79	93.34			

P<0.05P<0.01*

Table No. 3 and 4 revealed that there was statistically no significant difference between male and female respondents with reference to all five sub variables (Received Knowledge, Experiential Knowledge, Practice, Reflection and Professional Competence) of in-service training assessment. Thus it proves that the male and the female respondents were equally responding towards the opportunities available for in-service training. Thus the hypothesis “There is no difference in the perception of male and female faculty members towards the teacher training opportunities” is approved.

Table No. 4.5 Comparison between male and female employees (t test)

Variable		N	Mean	t value	Df	Sig.
Proactive Behavior	Male	75	28.33	-.21	152	.83
	Female	79	28.52			

P<0.05P<0.01*

Similarly the proactive behavior (Table 4.5) of the male and female respondents was also same and there was no significant difference ($t = -.21$) between them in this

regard. So in that case the hypothesis “There is no difference in the pro active behavior of the male and female faculty members” is approved as well.

**Table No 4.6 Effect of In-Service Training on Proactive Behavior
(Regression Analysis)**

Independent Variable	Dependent Variable	β (Coefficients)	t value	Sig.	R Square
In-Service Training	Proactive Behavior	.174	2.182	.03	.03

The Table 4.6 represents that the R^2 value is 0.03. It explains that the independent variable (In-Service Training) describes 03 percent variation in developing the proactive behavior. The rest is due to other factors. While the coefficient ($B = .174$) was significant at 0.05 level. It indicates that in-service training and proactive behavior are positively related with each other. Thus the hypothesis “There is a positive relationship between teacher training and proactive behavior of the teachers” is approved.

**Table No 4.7 Relationship between In-Service Training and Proactive Behavior
(Regression Analysis)**

Model			Standardized Coefficients Beta	T	Sig.	R Square
	Independent Variable	Dependant Variable				
1.	Received knowledge	Proactive Behavior	.141	1.75	.08	.020
2.	Experiential knowledge		.075	.93	.35	.006
3.	Practice		.096	1.19	.23	.009
4.	Reflection		.103	1.27	.20	.011
5.	Professional competence		.204	2.56	.01	.042

It was also revealed (Table 4.7) that the five sub independent variables (Received Knowledge, Experiential Knowledge, Practice, Reflection and Professional Competence) were having different levels of effect on the dependant variable (Proactive Behavior).

- I. R^2 value (0.02) explains that the received knowledge (independent sub variable) describes 02 percent variation in proactive behavior. The rest is due to other factors. The value of $p = .08 > 0.05$, which means that there is no significant effect. (Table No. 7).
- II. R^2 value (0.006) explains that the experiential knowledge (independent sub variable) describes only 0.6 percent variation in proactive behavior. It explains No Variation, because the effect is not significant (Table No. 7).
- III. R^2 value (0.009) explains that the practice (independent sub variable) describes only 0.9 percent variation in proactive behavior. It shows No Variation, because the effect is not significant (Table No. 7).
- IV. R^2 value (0.011) explains that the reflection (independent sub variable) describes only 1.1 percent variation in proactive behavior. It describes No Variation, because the effect is not significant (Table No. 7).
- V. R^2 value (0.042) explains that the professional competence (independent sub variable) describes only 4.2 percent variation in proactive behavior. The rest is due to other factors. While the coefficient ($B = .204$) was significant at 0.01 level (Table No. 7).

Thus it shows that Received Knowledge, Experiential Knowledge, Practice and Reflection were not having any statistically significant effect on the development of proactive behavior of the employees, while Professional Competence was found having 4.2 percent effect on proactive behavior and it was statistically significant at 0.01 level.

5. Discussion

In service teacher training is the most important aspect of the teaching profession. However, opportunities to train the teachers according to the current needs are inadequate and insufficient

(Britt, Irwin & Ritchie, 2001; Ottevanger, Macfarlane & Clegg, 2005). Further there is a gap between the theory and the practice (Krainer, 1999; Even, 1999). According to Krainer, 1999; Even, 1999 “teacher training programmes are facing a number of challenges such as less resources, unavailability of trained trainers, lack of serious attitude and inadequate feedback channels”. However all these issues can be solved with proper planning.

Keeping in view the fact that such training programmes can reflect in the better performance of the teachers in future, there is a need to adopt quick and valid measures to organize

and improve teacher training all over the country. Thus the current research also focused the same area. The study focused the three major objectives.

The first objective was “To compare the perception of male and female faculty members towards the teacher training opportunities”. The research findings revealed no significant difference between male and female respondents with reference to the teacher training. Similarly in response to the second research objective “To compare proactive behavior of the male and female faculty members”, no statistically significant difference was found between proactive behavior of male and female teachers. While “To assess the effect of teacher training opportunities on proactive behavior of the teachers” regression analysis was used and it was found that in-service training effects the development of proactive behavior of the employees up to 3 percent only. While professional competency was the strongest variable that was responsible to affect the proactive behavior of the employees. Thus it is also worth mentioning that the future researchers may lead the research in the direction to find out the other factors that are affecting the proactive behavior of the employees.

6. Recommendations

1. In the light of the findings/ results of the research it is recommended that the male and female employees serving as the faculty members at the higher level of education in Pakistan may have the equal opportunities related to the in-service training. As the results show that there was no difference between male and female respondents towards the Received Knowledge, Experiential Knowledge, Practice, Reflection and Professional Competence. Similarly the proactive behavior of the both genders was also same.
2. As the results revealed that in-service training and the proactive behavior of the employees was found positively related with each other. Thus it is worth to recommend that there is a need to pay special attention to the arrangement of in-service training programmes frequently. Such programmes can be of short duration but it has to be link with the current needed job related skills. It has also to be ensured that each and every employee has to get an equal chance of participating in such trainings.
3. It is suggested that the different higher level institutions and universities can join their hand to organize teacher in-service training programmes according to the available human resources and skills. In this way there would be a chance of the sharing of knowledge and skills between the universities.

4. University management needs to pay attention to the professional competence of the employees. In order to learn new methods and techniques related to the field of teaching on line workshops and video conferences can also be arranged.
5. In-service training has to be linked with the performance benefits and promotions to attract the employees to take part in such activities.
6. It is recommended that training has to be linked with the daily routine problems and issues so that the employees may find it useful in their own situations.
7. As a part of recommendations a model has been suggested by the researcher to regulate the teacher training programme at university level. The model suggests focusing on the following basic teacher training areas (Fig. 2). Further the model also provides the explanation of the process of training programmes (Fig. 3). The suggested process is based on the six steps with the purpose that each cycle of the training will focus on the one selected area of training need.

Teacher Training Areas

KNOWLEDGE DEMANDS

- a. Awareness of self and surroundings
- b. Subject knowledge with specialization
- c. Understanding professional requirements
- d. Good perception of social and moral values
- e. Understanding students potentials and needs

SKILL DEMANDS

- a. Learning art of teaching
- b. Designing interactive activities
- c. Learning teaching methods and strategies
- d. Measuring learning achievement

PLANNING DEMANDS

- a. Learning course planning
- b. Learning sessions planning
- c. Learning academic planning
- d. Learning assessment planning

MANAGEMENT DEMANDS

- a. Learning administrative skills
- b. Learning management skills
- c. Learning official correspondence
- d. Learning record keeping skills

RESEARCH DEMANDS

- a. Planning research
- b. Conducting research
- c. Supervising research
- d. Report writing
- e. Paper writing

PERSONAL DEMAND

- a. Respect for administrative hierarchy
- b. Cooperation with individuals and groups
- c. Developing acceptable behavior
- d. Respect for others ideas and care
- e. Following the ethical codes
- f. Positive social interaction

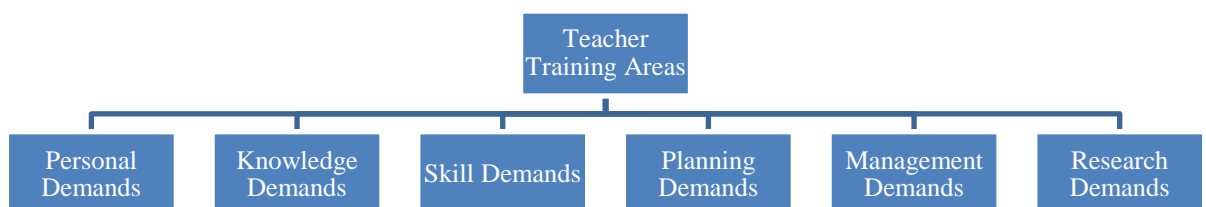


Fig. No. 2 Teacher Training Areas

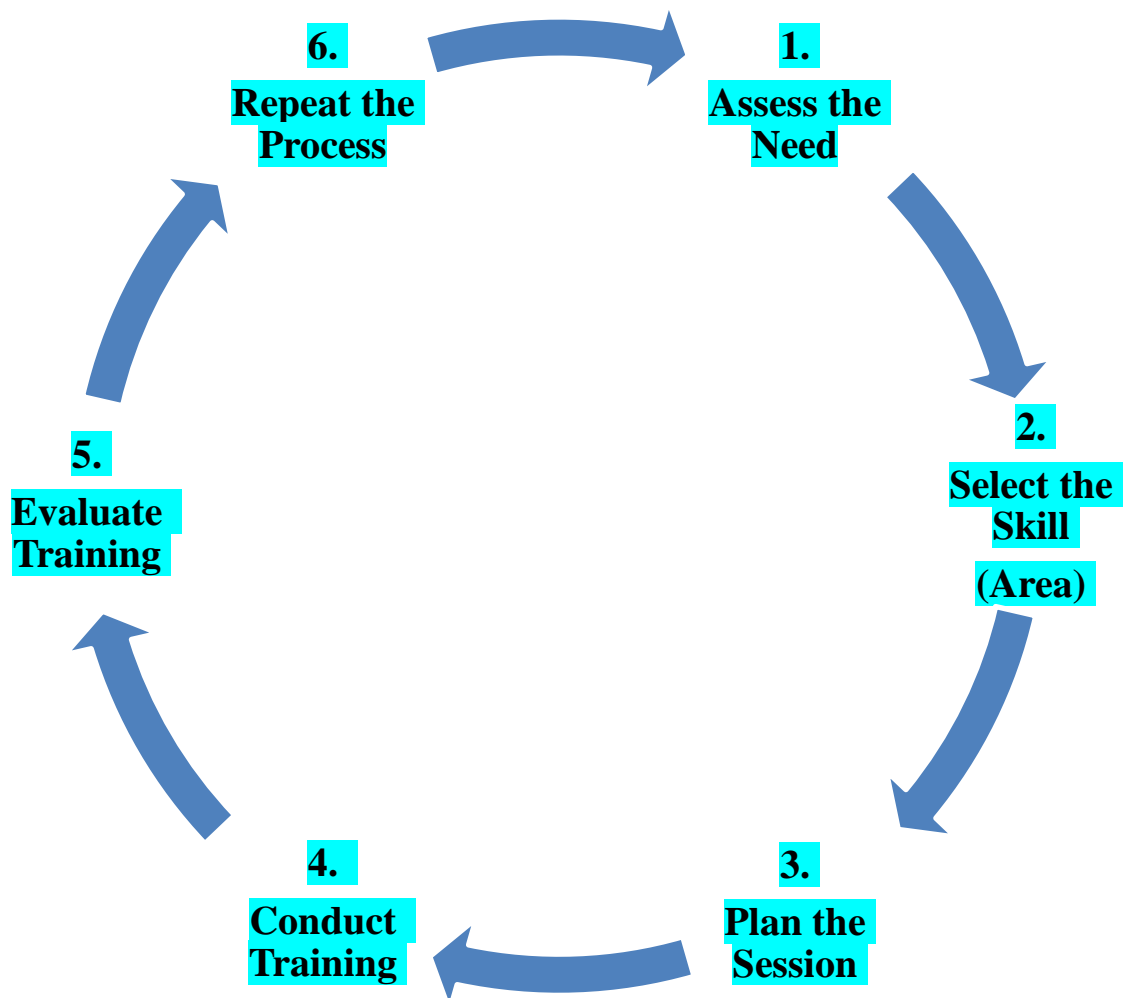


Fig No. 3 Process of Training

References

- Bandura, A. (1994). *Self-efficacy*. V. S. Ramachaudran (Ed.), Encyclopedia of human behavior (Vol. 4, pp. 71–81). New York: Academic Press.
- Bockerts, M., Pitrich, p., & Zeidner, M. (2000). *Handbook of self regulation*. San Diego: Academic press.
- Britt, M. S., Irwin, K. C. & Ritchie, G. (2001). Professional conversations and professional growth. *Journal of Mathematics Teacher Education*, 4(1), 29–43.
- Duffy, A. (1993). Steps towards new horizons. *International Journal of Early Childhood*, 25(1): 49-53.
- Duquette, C. (1993). A School-Based Teacher Education Program: Perceptions and Attitudes. *Journal of Educational Research*, 39,(4), 419-32.
- Even, R. (1999). The development of teacher leaders and in-service teacher educators. *Journal of Mathematics Teacher Education*, 2(1), 3–24.

- Govt of Pakistan (1959). *National Commission on Education 1959*. Ministry of Education, p-265
- Govt of Pakistan (1972). *The Education policy 1972-80*. Islamabad: Ministry of Education, p-23
- Govt of Pakistan (1979). *National Education Policy and Implementation Programme 1979*. Islamabad: Ministry of Education, p-16
- Govt of Pakistan (1992). *National Education Policy 1992-2002*. Islamabad: Ministry of Education. pp.26-62
- Harber, C. (1987) The West Midlands-West Africa Project. *British Journal of In-Service Education*, 13(2): 86-90.
- Iqbal, M. Z. (1996). *Teachers Training: The Islamic perspective*. Islamabad: Institute of Policy Studies, p-107
- Jerald, C. D. (2007). *Believing and achieving*. Washington DC: Center for Comprehensive School Reform and Improvement.
- Kahn, Michael. (1990). *Teachers, tutors and inspectors: views of pre-service teacher education in Botswana*. Educational Review, 42(1): 3-12.
- Kazmi, S.F., Pervez, T., Mumtaz, S. (2011). In-Service Teacher Training in Pakistani Schools and Total Quality Management (TQM). *Interdisciplinary Journal Of Contemporary Research In Business*, March Edition 2011, 2, 238-248. ISSN 2073 7122
- Krainer, K. (1999). *Theory and practice: Facilitating teachers' investigation of their own practice*. A panel paper presented at the Third Conference of European Society for Research in Mathematics Education. Osnabruck: [Electronic Version, 17th July, 2005]
- Ottevanger, W., Macfarlane, I., and Clegg, A. (2005). Science and mathematics education development in Namibia after independence: The INSTANT Project. *Journal of International Cooperation in Education*, 8(1), 35–44.
- Pintrich, P.R., & Schunk, D.H. (2002). *Motivation in education* (2nd ED.). Upper Saddle River, NJ: Printice Hall.
- Shommo, M.I. (1995). Teaching home economics by a problem-solving approach in Sudanese secondary schools for girls. *British Journal of In-service Education*, 21(3): 319-329.
- Wallace, M. (1991). *Training foreign language teachers: A reflective approach*. New York: Cambridge University Press.

TEACHING OF SCIENCE AT SECONDARY LEVEL: AN ANALYSIS OF TEACHERS' CLASSROOM PRACTICES

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Abstract

The attempt is done to analyze the science teachers' classroom practices at Secondary level in Rawalpindi-a district of the Punjab (Pakistan). The objectives of the study were to analyze and compare pedagogical practices of teachers with respect to their gender, qualification and experience. Six null hypotheses were developed. A cross-sectional survey was conducted for the study. Random sampling technique was used for the selection of male (120) and female (120) teachers. The questionnaire was used for the science teachers to analyze their classroom practices. Data was collected by visiting the sample secondary schools of the District Rawalpindi personally. Data of questionnaire was analyzed by using an independent sample t-test and two-way ANOVA. It was found that there were significant differences between classroom practices with respect to their gender and qualification; moreover, there were interaction effects of teachers' qualification and gender; gender and experience and qualification and experience on their practices in the classrooms. It was recommended to train and encourage male and female teachers equally.

Key Terms: Pedagogical practices, classroom practices, Quality teaching, Science teachers

1. Introduction

“Science and technology” is what best describes the contemporary age. Scientific discoveries and inventions have become fashion. In fact, every walk of life is getting the benefits of scientific knowledge. In 2011, Faize & Dahar observed, people whether living in countryside or city are equally engaged in making the best use of the available scientific conceptions. Moreover, Reeves (2002) finds that the use of the available scientific knowledge is seen in a unique manner i.e. intuition in spite of diversion. Similarly, the field of education is no exception. In 2002, Cooper asserts that the quality assurance of an educational program is the reflection of academic standards and attempt to maintain them.

Pedagogy is an art of education. Its aim ranges from the full progress of the human being to skills attainment. For example, Paulo Freire referred to his method of coaching people as critical pedagogy. Learning is a process and it takes time for children to learn. Teacher should develop such a safe and thoughtful learning environment in which all students can learn. It requires such teaching activities and strategies that all students have active participation in the learning process. These efforts of a teacher are called Pedagogical styles of teaching. By using a variety of interactive activities in class rooms, student interests and active participation in learning can be enhanced. Such activities enable students to construct their own knowledge. While designing these activities, teacher must ensure that all students are participating. Knowing about learning style can help teacher plan lessons, assignments and activities. The word pedagogy is taken from the Greek in which genitive “paidos” shows "child" and “ago” means "lead"; so, “It literally means to lead the child. It is observed that pedagogy is helpful in recognizing, recalling, analyzing, reflecting, applying, creating, understanding and evaluating. It is the development of the human being to skills acquisition (Mundhe & Herkal, 2013).

In developing countries, Most of the teaching in class room is done in a traditional way. The children sit quietly in rows in the classroom, the teacher does all the talking and the students passively listen to the teacher not following a psychological procedure. Whereas when the students are taught in this way, they get very little of the knowledge. Many researches show that the learning of students improves a lot when their active participation is ensured. Student-oriented applies and cognitive activation is related with student motivation and conceptual understanding. In traditional classroom the learning capabilities of more students are limited and they tries to copy what is written on the board by the teacher. However, empirical research proposes that these factors are not sufficient to adoptive learning. Cognitive outcomes may also require clear constructing of lessons e.g. students learn more by actively participating in observing, speaking, writing, listening, thinking, drawing and doing (Baumert, et al. 2009; Klieme, Pauli, and Reusser, 2009; Creemers and Kyriakides, 2008).

Studies done in the past, unfolded the reality that whatever the views a teacher keeps about science; scientific based knowledge; and how students absorb and retain scientific notions , all prove their decisive role in the modification and application of the curricula designed, specifically, to promote science education (Fang, 1996; Crawford, 2000; Keys, 2005; Johnson, 2004). Hence a notable number of educationists admitted that

teachers' views play back of the practices which they carry during instructions (Johnson, 2004; Brownlee, Boulton-Lewis & Purdie, 2002).

So, every step which is taken to bring a change in the fashion, researchers, found it requisite to have complete knowledge. For instance, what the teacher thinks of, is of sublime importance when curriculum is tried to model; when guidance is provided for effective modification; and when skillful learning is provided which ultimately benefits the educators to reconstruct the earlier beliefs and thoughts according to the needs and demands of curriculum (Keys, 2005; Feldman, 2000; van Driel, Beijaard, & Verloop, 2001). Previously, the attempts were made to explore the classroom practices of male and female teachers by studying them separately whereas the current study made a difference for here no segregation was carried out and both the genders went through observation simultaneously.

1.1 Objectives of the study

Following were the objectives of the study:-

1. To compare practices of male and female teachers to teaching science subjects.
2. To find out the effect of teachers' experience on their classroom practices.
3. To discover the impact of teachers' qualification on their classroom practices.

1.2 Research Hypotheses

Research hypotheses were:-

H₀₁: There is no significant difference between practices of male and female teachers to teaching science subjects.

H₀₂: There is no impact of teachers' qualification on their classroom practices.

H₀₃: There is no impact of teachers' experience on their classroom practices.

H₀₄: There is no interaction effect of teachers' gender and qualification on their classroom practices.

H₀₅: There is no interaction effect of teachers' gender and experience on their classroom practices.

H₀₆: There is no interaction effect of teachers' qualification and experience on their classroom practices.

2. Literature Review

Humans have always been curious about the world around them. The inquiring and imaginative human mind has responded to the wonder and awe of nature in different ways. One kind of response from the earliest times has been to observe the physical and biological environment carefully, look for any meaningful patterns and relations, make

and use new tools to interact with nature, and build conceptual models to understand the world. This human endeavour is science (Creemers and Kyriakides, 2008). When such type of citizens are desired who are well aware of the importance and application of science imparted through a system of education, the importance of teaching standard, is inevitable. In order to improve the students' learning outcomes and building community confidence, the role of quality teaching is crucial (Darling-Hammond, 1999). A number of subsequent reports and investigations also established the similar facts, for it helped to attain a prolific level of understanding (Darling-Hammond, 1999; NCMST, 2000; National Research Council, 1997).

While the quality teaching addresses two major issues i.e. teachers' knowledge of subject matter and pedagogy. Verily, these are the vital components of quality teaching in science (Darling-Hammond, 1997). Studies done in the past, unfolded the reality that whatever the views a teacher keeps about science; scientific based knowledge; and how students absorb and retain scientific notions, all prove their decisive role in the modification and application of the curricula designed, specifically, to promote science education (Fang, 1996; Crawford, 2000; Keys, 2005; Johnson, 2004). At the secondary stage the students should be engaged in learning science as a composite discipline, in working with hands and tools to design more advanced technological modules than at the upper primary stage, and in activities and analysis on issues surrounding environment and health. Systematic experimentation as a tool to discover/verify theoretical principles, and working on locally significant projects involving science and technology are to be important parts of the curriculum at this stage (Johnson, 2004).

Quality teaching and learning of science that includes: 1. students learning of science is greatly determined by how they are taught by teachers; 2. teachers' perceptions of science as a discipline and as a school subject to be learned by the students greatly influenced their actions and its teach-ability; 3. students' understanding of science is achieved through their engagement and active construction and social processing of information; and 4. teachers' understanding of and relationship with their students have a great influence on their actions (Keys, 2005).

3. Methodology

3.1 Nature of the study

It was a descriptive study. Cross-sectional survey was used for the study.

3.2 Population

The population included all male and female science teachers of Government High Schools of district Rawalpindi.

3.3 Sample

There were 2728 male and 3573 female High School Teachers in the district Rawalpindi. 240 science teachers (120 male and 120 female) were selected randomly as the sample of the study.

3.4 Research Instrument

A questionnaire was prepared for the science teachers to find out their practices for teaching science. Cronbach Alpha was applied for calculating reliability of the instrument i.e. 0.977 and considered acceptable.

3.5 Data Collection Procedure

Data was collected through personal visit to the sample schools. A cross sectional survey was conducted for the collection of data.

4. Data Analysis

Data was analyzed by using an independent sample *t*-test for comparing pedagogical practices of male and female teachers. An independent sample *t*-test was used to analyze the null hypothesis i.e. there is no significant difference between the pedagogical practices of male and female teachers. Two-way ANOVA was used to analyze the rest of null hypotheses. Post-hoc tukey test was applied to find whether there was any significant difference between the groups.

Table 4.1 Showing results of *t*-test

Respondents	N	df	Mean	SD	<i>t</i> -value	<i>p</i>
Male	120	238	87.51	5.036	33.046	0.000
Female	120	238	52.45	10.474		
Total	240					

An independent sample *t*-test was conducted to compare practices of male and female teachers to teaching the science subjects. A hypothesis was formulated for this purpose i.e. H_0 1: There is no significant difference between practices of male and female teachers to teaching science subjects.

There was a significant difference between male ($M=87.51$, $SD= 5.036$) and female ($M= 52.45$, $SD= 10.474$), $t(238) = 33.046$, $p = 0.000$ teachers' classroom practices. This showed that null hypothesis was rejected as there was a significant difference between practices of male and female teachers to teach the science subjects. Moreover, male teachers ($N=120$, $M=87.51$, $SD= 5.036$) were statistically using more practices than female teachers ($N=120$, $M= 52.45$, $SD= 10.474$) (Table 4.1).

A two-way between groups analysis of variance was conducted to analyze the hypotheses No. 2 to 6. Before running two-way ANOVA the assumptions of ANOVA were tested and met.

Table 4.2 Tests of Between-Subjects Effects

Source	<i>df</i>	<i>F</i>	Sig.
Gender	1	488.385	.000
Qualification	2	11.787	.000
Experience	3	1.415	.239
Gender * Experience	2	81.960	.000
Experience * Qualification	4	22.399	.000
Gender * Qualification	2	4.114	.018
Error	225		

The second hypothesis stated that there is no impact of teachers' qualification on their classroom practices. Subjects related to teaching qualification were divided into three groups (qualification of; BSc, BS/MSc, MS/M. Phil.). A two-way ANOVA was applied to test this hypothesis. The effect of teachers' qualification on their classroom practices was statistically significant as $F(2, 225) = 11.787$, $p = 0.000$ (Table 2). So, the null hypothesis i.e. H_02 : There is no impact of teachers' qualification on their classroom practices, was not accepted. As there was statistically significant difference between teachers' classroom practices with respect to their qualification, hence, Post Hoc tucky test was applied.

Table 4.3 Results of Post Hoc Tucky Test

(I) qualification	(J) qualification	Mean Difference (I-J)	Sig.
BSc	BS/MSc	-4.79	.000
	MS/MPhil	3.82	.004

BS/MSc	BSc	4.79	.000
	MS/MPhil	8.61	.000
MS/MPhil	BSc	-3.82	.004
	BS/MSc	-8.61	.000

Results in Table 4.3 showed that there were statistical differences present in all the groups related to teachers' qualification. This implied that the teachers with different qualifications i.e. BSc, BS/MSc, MS/M. Phil. used strategies that were different from each other. Table 3 also found that the minimum mean difference i.e. 3.82 found between practices used by the teachers with the qualification of BSc and MS/M. Phil, while, this mean difference reached to 4.79 in case of the teachers with the qualification of BSc and BS/MSc. It was also found that the teachers with the qualification of BS/M. Sc. and MS/M. Phil. showed maximum mean difference i.e. 8.61.

Third hypothesis stated that there is no impact of teachers' experience on their classroom practices. Subjects related to teachers' experience were divided into four groups (experience of; less than 1 year, 2 to 5 years, 6 to 9 years and above 10 years). A two-way ANOVA was applied to test this hypothesis. The effect of teachers' experience on their classroom practices was not statistically significant, $F(3, 225) = 1.415, p = .239$ (Table 2). So, the null hypothesis i.e. H_03 : There is no impact of teachers' experience on their practices, was accepted.

Fourth hypothesis stated that there is no interaction effect of teachers' gender and qualification on their classroom practices. A two-way ANOVA was applied to test this hypothesis. The interaction effect of teachers' gender and qualification on their classroom practices was statistically significant, $F(2, 225) = 4.114, p = .018$ (Table 2). So, the null hypothesis i.e. H_04 : There is no interaction effect of teachers' gender and qualification on their classroom practices was not accepted.

Fifth hypothesis stated that there is no interaction effect of teachers' gender and experience on their classroom practices. A two-way ANOVA was applied to test this hypothesis. The interaction effect of teachers' gender and experience on their classroom practices was statistically significant, $F(2, 225) = 81.960, p = .000$ (Table 2). So, the null hypothesis i.e. H_05 : There is no interaction effect of teachers' gender and experience on their classroom practices was not accepted.

Sixth hypothesis stated that there is no interaction effect of teachers' qualification and experience on their classroom practices. A two-way ANOVA was applied to test this

hypothesis. The interaction effect of teachers' qualification and experience on their classroom practices was statistically significant, $F(4, 225) = 22.399, p = .000$ (Table 2). So, the null hypothesis i.e. H_06 : There is no interaction effect of teachers' qualification and experience on their classroom practices was not accepted.

5. Conclusion

The findings of the study concluded that the null hypothesis i.e. there is no significant difference between pedagogical practices of male and female teachers was rejected as there was a significant difference between practices of male and female teachers. Moreover, male teachers were statistically using more practices than female teachers. The results of the study also concluded that the null hypothesis i.e. there is no impact of teachers' qualification on their classroom practices was rejected as there was statistically significant difference between teachers' qualification with respect to their classroom practices. Post-hoc comparison using Tukey HSD also showed that the teachers with the qualification of BS/M. Sc. and MS/M. Phil. showed maximum mean difference. The results of the study also concluded that the null hypotheses i.e. there is no interaction effect of teachers' gender and qualification on their classroom practices; there is no interaction effect of teachers' gender and experience on their classroom practices and there is no interaction effects of teachers' qualification and experience on their classroom practices were rejected. While the null hypothesis H_03 : There is no impact of teachers' experience on their classroom practices was accepted.

5.1 Recommendations

It was recommended that all the teachers with different qualifications might be trained by the latest pedagogical practices and techniques for the classrooms. Special training material might be developed for the purpose to remove the differences between their practices. Male and female teachers might also be encouraged to use practices in the classrooms equally, so that the statistical difference between them might be removed.

References

- Anjum, A. (2002). *Problem faced by Secondary School Teachers at Kamra Cant.* Thesis: Master in Education, Islamabad: International Islamic University.
- Baumert, J., Kunter, M., Blum, W., Brunner, M., Voss, T., Jordan, A., Klusmann, U., Krauss, S., Neubrand, M., & Tsai, Y.M. (2009). Teachers' mathematical knowledge: Cognitive activation in the classroom, and student progress. *American Educational Research Journal*, 47, pp. 133-180.

- Brownlee, J., Boulton-Lewis, G., & Purdie, N. (2002). Core beliefs about knowing and peripheral beliefs about learning: Developing an holistic conceptualisation of epistemological beliefs. *Australian Journal of Educational and Development Psychology*, 2, 1-16.
- Cooper, T. (2002). *Why students retention fails to assure quality*. Paper presented at the HERDSA Conference, Edith Cowan University, WA.
- Crawford, B. A. (2000). Embracing the essence of inquiry: New roles for science teachers. *Journal of Research in Science Teaching*, 37(9), 916-937.
- Creemers, B. P. M. & Kyriakides, L. (2008). *The Dynamics of Educational Effectiveness: A Contribution to Policy. Practice and Theory in Contemporary Schools*. London/New York: Routledge.
- Darling-Hammond, L. (1997). *Doing what matters most: Investing in quality teaching*. New York: National Commission on Teaching and America's Future.
- Darling-Hammond, L. (1999). *Solving the dilemmas of teacher supply, demand, and standards: How we can ensure a competent, caring, and qualified teacher for every child*. New York: National Commission on Teaching and America's future.
- Faize, F. A. & Dahar, M. A. (2011). Effect of Mother's Level of Education on Secondary Grade Science Students in Pakistan. *Research Journal of International Studies*, 19, 13-19.
- Fang, Z. (1996). A review of research on teacher beliefs and practices. *Educational Researcher*, 38, 47-65
- Feldman, A. (2000). Decision making in the practical domain: A model of practical conceptual change. *Science Education*, 84(5), 606-623.
- Johnson, K. (2004). The role of field paleontology on teachers' attitudes toward inquiry science. *NOVAions Journal*, 2004(2f). Retrieved 12/10/2015 from <http://novationsjournal.org/content/article.pl?sid=04/05/04/0024254&mode=thread&t...>
- Keys, P. M. (2005). Are teachers walking the walk or just talking the talk in science education? *Teachers and Teaching: theory and practice*, 11(5), 499-516.
- Klieme, E., Pauli, C. & Reusser, K. (2009). Quality of geometry instruction and its short-term impact on students' understanding of the Pythagorean Theorem. *Learning and Instruction*, 19, pp. 527-537.
- Mundhe, K. L. & Herkal, S. C. (2013). Life Long Learning : Progression from pedagogy to Andragogy then to Heutagogy. *Scholarly Research Journal for Interdisciplinary Studies (SRJIS)*.
- National Commission on Mathematics and Science Teaching (NCMST, 2000). *Before it's too late*. Jessup, MD: Education Publications Centre, U.S Department of Education.
- National Research Council (1996). *National science education standards*. Washington, DC: National Academic Press.
- National Research Council (1997). *Improving schooling for language-minority children: A research agenda*. Washington, DC: National Academy Press.
- Orr, B. (1999). Pre-service Teachers Perceived Success of Classroom Management Strategies. *Journal of Family and Consumer Sciences Education*, 17 (1).

- Reeves, T. (2002). *Mass education and quality*. Paper presented at the HERDSA Conference: Keynote address: Edith Cowan University, Perth.
- Shaheen, F. (2003). *A Study of the Problems of the Overcrowded Schools at Secondary Level in District Attock*. Thesis: Master in Education, Department of Education, Islamabad: International Islamic University.
- Van Driel, J. H., Beijaard, D. & Verloop, N. (2001). Professional development and reform in science education: The role of teachers' practical knowledge. *Journal of Research in Science Teaching*, 38(2), 105-122.
- Vant Hooft, M. (2005). The effect of the "Ohio school going solar" project on student perceptions of the quality of learning in middle school science. *Journal of Research in Technology Education*, 37(3), 221-244.

RELATIONSHIP BETWEEN CLASS SIZE AND ACADEMIC ACHIEVEMENT

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Abstract

Class Size can be defined as the total number of students' in a course or classroom, taught by an instructor throughout the year (Blatchford, 2003) and it is one of the major indicator that influence the Students' Academic Achievement (Adunola, 2013; Vandenberg, 2012; Kornfeld, 2010). The main objective of the study was to find out "The Relationship between Class Size and Students' Academic Achievement". The nature of the study was co-relational and population of the study was students' of 5th Grade. The study was delimited to the District Gujrat and twenty five public schools were randomly selected. A check list was developed by reviewing the literature then it was validated through expert's opinion. The data were collected from the Heads of the selected schools. Data were analyzed through SPSS version 21. Findings of the study revealed that Class Size of 5th Graders at Elementary Schools were more than the average Class Size determined by Tomlinson (1988). Moreover, it revealed, negative and strong correlation between class Size and Academic Achievement scores in general at both boys and girls Elementary Schools.

Key Words: Class Size; 5th Grader; Academic Achievement

1. Introduction

Class Size is characterized as the number of Students' in a class with one instructor. Tomlinson (1988) identified that there are four different types of class: a) Ideal Classes (10-12 pupils for each instructor), b) Small Classes (13-17 pupils' for each instructor), c) Standard Classes (22-25 pupils' for each instructor), d) and General Classes (22-25 pupils' with an instructor and a full-time guest instructor). Class size affects the performance of both the teacher and the students' by the number of ways. Finn et al. (2003) exposed that the teacher can easily engage pupils in small classes and the pupils

can also minimize their disturbing attitude in small classes as compared to the class where the number of the Students' are extended.

According to the Caplin's Dictionary of Psychology (1965) Academic Achievement has been characterized as the level of fulfillment of proficiency in scholastic act as assessed by instructor or through institutionalized accomplishment tests. Academic Achievement is essential because it makes pupil or person ready for future professions. Academic Achievement helps the teachers to shape the minds of the pupils and promote them in next grade. In this study the researcher studied the relationship between the Class Size and Students' Academic Achievement and the difference between the Academic Achievement of boys and girls students of grade 5th. There are many factors that affect the students' Academic Achievement for example Gender (Chambers and Schreiber, 2004); Socio Economic Status of the Students (Capraro & Wiggins, 2000), Parental Education (Ceballo, McLoyd & Toyokawa, 2004), and Home Environment (Barnard, 2004; Henderson, 1988; Shumox & Lomax, 2001) and Class Size (Blatchford, 2003).

Class Size plays a major role in the academic career of the pupil as well as the teacher and school also. It is an important variable that directly and indirectly affects the students' Academic Achievement. If the number of the pupils would be increased in the class then the Achievement level of Students' will be decreased (Biddle, B. J., & Berliner, D. C. 2002). There are many researches on An Analysis of The Relationship between Class Size and Academic Performance of Students (ADUNOLA, 2013), Class Size and students' Academic Achievement (Vandenberg, 2012) and The Effects of Class Size on Student Academic Achievement in a Rural State (Kornfeld, 2010)

This study would be helpful for the heads of the schools, teachers, Students, curriculum developer and also for the policy makers. Head of the school would divide the class into the small groups according to the average Class Size. The teacher would plan different activities in the class for the Students related to his/her topic. He/she can easily give the feedback and proper guidance for the students. Students would easily ask the questions from their teacher and the relation between the teachers to student and student to student would be stronger as compared to the large class size. The curriculum experts would plan and design different activities, It would be helpful for policy maker to refine the existing educational policies.

1.1 Objectives of Study

Major objectives of the study were:-

- 1 Find the Class Size of 5th Graders in Elementary Schools.
- 2 Determine the Achievement Level of 5th Graders in Elementary Schools.
- 3 Compare the Class Size of 5th Graders between the Boys and Girls in Elementary Schools.
- 4 Compare the Mean Achievement Score of 5th Graders between the Boys and Girls in Elementary Schools.
- 5 Determine the Relationship between Class Size and Achievement of 5th Graders in Elementary Schools.

1.2 Research Questions

1. What is the Class Size of 5th Grade in Elementary Schools?
2. What is the Class Size of 5th Grade in Boys Elementary Schools?
3. What is the Class Size of 5th Grade in Girls Elementary Schools?
4. What is the Mean Achievement Score of 5th Grade in Elementary Schools?
5. What is the Mean Achievement Score of Boys 5th Grade in Elementary Schools?
6. What is the Mean Achievement Score of Girls 5th Grade in Elementary Schools?
7. Do 5th Grade Class Size Differ between Boys and Girls in Elementary School?
8. Do 5th Grade Academic Achievement Differs between Boys and Girls in Elementary Schools?
9. Do Class Size and Achievement Scores of 5th Graders in Elementary Schools Correlated Significantly?

2. Literature Review

Hanushek (1999) suggested that in the established elementary school level class size can be defined as classroom is the duty of one Instructor/Teacher in an independent class room, number of pupils is the main duty of one teacher in a class within a year. The small number of Students e.g. 11 will be considered a small Class Size as well as large number of Students e.g. 20 or additional Students will be considered as large Class Size. The size of class influences the teaching. If a class is small in size then teacher may spend extra time with each student as compare to large Class Size. In smaller classes the teacher may face less challenge as compare to the large classes as: a) to organize the class, b) to direct and evaluate and, c) to plan activities. Teachers feel more stress in large Class Size.

And in smaller classes teacher can easily judge the challenges and provide better suggestions and guideline to his/her Students. A teacher can be well aware about his/her Students needs and can maintain good relations with them.

Classroom administration is an issue of that class in which the number of Students' is large. The absence of suitable physical space is a component influencing guideline, and as indicated by Blatchford et al. (2007), having pupils' closer to one another in physical vicinity escorts classroom administration issues because of the instructor's failure to face the challenging Students large size class.

To maintain a methodical and safe learning situation, instructors of a large number of pupils' are less inclined to utilize inquiry-based study facilities (Deutsch, 2003). A deficiency of physical space deprive continue the teachers from having the capacity to utilize a different types of instructional methods and to adjust the learning environment to tackle in a better way the issues of the pupils' (Deutsch, 2003; Blatchford et al., 2007).

Need for using class time for the treatment of the pupils' misbehavior could influence on pupils' Achievement also be a reason aligned with ever-increasing number of Students' (Blatchford et al., 2007). Cakmak (2009) indicated that large size classes have more cases of pupils' bad behavior and less Academic Achievement because of instructional time being utilized for classroom administration. Adding to this study with respect to Class Size with classroom administration were investigated that how the collaborations between the instructors and the pupils' are influenced by larger number Students. North Carolina recommended that Small Classes (15 or less pupils) helped instructors to resolve discipline issues through the individual connections they found themselves able to build up with their pupils.

Instructors expressed that in small classes, they found themselves able to interact more with pupils' and maintain discipline issues from happening (Egelson et al., 1996). Increased the number of the pupils' in the classroom influences the instructors associations towards pupils and also disturb pupil to pupil communications (Blatchford et al., 2003a; Blatchford et al., 2007).

Small Classes enhance teacher and Students' collaborations. Instructors in small classes have the capacity to give learners more instructional criticism (Blatchford et al., 2003a; Pedder, 2006). Day after day interaction with student allowed instructors to evaluate the instructional and necessities of their students'. Having the capacity to have

quality associations with their pupils is a vital part of small Size classes as this encourages the instructor to arrange and execute instructional exercises (Blatchford et al., 2003a). The utilization of direct guideline of an individual is an effect instructor and Students connections that absolutely influences the instructional exercises. Blatchford et al., 2005; Cakmak, 2009; Blatchford et al., 2003 studied that instructors give additional time for immediate direction of individual student in small classes.

Hedges and Stock (1983) proposed that: a. Small Classes are critical for extended Student Achievement. b. Students with inferior pedagogic have a more learning ability/capacity as compare to larger classes c. Lesser classes can emphatically influence the Academic Achievement of financially or socially burdened Students.

Black and William (1998) explained that Achievement is the definite body of information. This gives remedial information of students. Achievement is able to expose capability of Students as well as the results may be used to predict the future action.

There were several factors effecting on the students Academic Achievement. Goddard (2003) defined that the atmosphere as well as the individual qualities of the learner's one assumed a vital part in their Achievement. This societal help is an essential part for the achievement of completing objectives of pupils in school.

Furstenberg and Hughes (1995) explained that society, social structure and association of children's extend the rate of Academic Achievement. Gender, orientation, plus father's profession are important contributors to pupils accomplishment (McCoy, 2005; Peng and Hall, 1995).

Parental education has an important impact on the pupil's Academic Achievement. The gender of the Students' emphatically influences their Academic execution. The girls do better as compare to the boys, normally hard work to get good marks at school (Ceballo, McLoyd & Toyokawa, 2004). Home environment of pupils' also influences the student's Academic Achievement of the pupils' (Marzano, 2003).

Other demographic elements, the impacts of Socio Economic Status are salient predominant on the level of Achievement (Capraro, R., Capraro, M., and Wiggins, 2000). This can be considered in a variety of techniques. It is frequently figured by taking a parental instruction, occupation, wage, and offices utilized by people independently or all in all.

3. Research Methodology

3.1 Population and Sample

Researcher targeted the 5th graders enrolled in elementary schools situated in the jurisdiction of Tehsil Gujrat. Reason of selecting the 5th graders was that 5th grader is the terminal stage of primary education. It is significant in the sense as the learner at this stage must learn the basic literacy and numeracy skills. It is necessary to ensure the learning of these desired skills by the teacher and the larger no. of students in a class may suffer from effective learning. Accessible population for the researcher was those elementary schools situated in the jurisdiction of four Marakaz i.e. Markaz East (Boys'&Girls') and Markaz West (Boys'&Girls') in Tehsil Gujrat. Sample of the study was selected using two stage random sampling technique. Firstly four Cluster Training and Support Centers (CTSCs) out of five CTSCs situated from four above mentioned Marakaz. Secondly twenty five elementary schools were selected randomly from three selected CTSCs. List of the schools were taken from District Training and Support Centre (DTSC) Gujrat. Each Markaz has 65 schools and researcher selected 20% schools from each Markaz.

3.2 Research Instrument

Two main variable of the study were the Class Size and Academic Achievement. To check the Class Size the check list was developed by the researcher. The indicators of the checklist were (a) school type, (b) sections, (c) strength of the Students' and (d) gender. For the Academic Achievement the result of the Students' of 5th grade was taken by the Pec annual results 2014.

3.2.1 Validation of Research Instrument

Checklist items were validated through expert's opinion. In the light of feedback received from the experts, the check list was finalized.

3.3 Data Collection

The researcher personally visited the selected schools and a meeting was organized with the head of the school. Head teacher was informed about the visit. He/she was asked to fill in the checklist. Direction was given to the head about the filling of the checklist. They were asked that the information provided was kept in confidential and just used for researcher purpose.

4. Data Analysis

Data were tabulated in SPSS (version21). Mean and standard deviation was calculated to describe the sample of the study. Pearson-r was calculated to find out the relationship between the Class Size and Students' Academic Achievement. Independent Sample t-test was used to find out the differences of Class Size and Academic Achievement between boys and girls elementary schools.

4.1 Results of Study

What is the Class Size of 5th Grade at Elementary Schools?

Table 4.1 Mean Class Size of 5th Grade at Elementary Schools

	N	Mean	SD
Class Size	25	37.15	19.55

Table 4.1 shows that Class Size of 5th grade in elementary schools is (M=37.15, SD=19.55) where as average Class Size should be 25 (Tomlinson, 1988)). It is concluded that existing Class Size of 5th grade in elementary schools greater than average Class Size.

What is the Class Size of 5th Grade of Boys at Elementary Schools?

Table 4.2 Class Size of 5th Grade of Boys at Elementary Schools

	N	Mean	SD
Class Size	9	45.44	22.55

Table 4.2 shows that Class Size of 5th grade in boys' elementary schools is (M=37.15, SD=22.55) where as average Class Size should be 25. It is concluded that existing Class Size of 5th grade in boys elementary schools greater than average Class Size.

What is the Class Size of 5th Grade at Girls Elementary Schools?

Table 4.3 Class Size of 5th Grade at Girls' Elementary Schools

	N	Mean	SD
Class Size	16	32.48	16.66

Table 4.3 shows that Class Size of 5th grade in girls' elementary schools is (M=32.48, SD=16.66) whereas average Class Size should be 25. It is concluded that existing Class Size of 5th grade in girls elementary schools greater than average Class Size.

What is the Mean Achievement Score of 5th Grade at Elementary Schools?

Table 4.4 Mean Achievement Score of 5th Grade at Elementary Schools

	N	Mean	SD
Academic Achievement	25	186.88	70.30

Table 4.4 shows that Mean Achievement Score (M=186.88, SD=70.30) of 5th grade in elementary schools. The mean achievement score was obtained from 500. It shows that 5th graders from elementary schools of Tehsil Gujrat are below average.

What is the Mean Achievement score Boys' of 5th Grade at Elementary schools?

Table 4.5 Mean Achievement Score Boys' of 5th Grade at Elementary Schools

	N	Mean	SD
Academic Achievement	9	132.11	58.84

Table 4.5 shows that Mean Achievement Score of boys' (M=132.11, SD=58.84) of 5th grade in elementary schools. The mean achievement score was obtained from 500. It shows that 5th graders from elementary schools of Tehsil Gujrat are below average.

What is the Mean Achievement Score Girls' of 5th Grade at Elementary Schools?

Table 4.6 Mean Achievement Score Girls' of 5th Grade at Elementary Schools

	N	Mean	SD
Academic Achievement	16	217.96	57.00

Table 4.6 shows that Mean Achievement Score of girls' (M=217.96, SD=57.00) of 5th grade in elementary schools. The mean achievement score was obtained from 500. It shows that 5th graders from elementary schools' of Tehsil Gujrat are below average.

Does 5th Grade Class Size differ between boys' and girls' at Elementary Schools?

Table 4.7 Comparison of 5th Graders Class Size between Boys' and Girls' Elementary Schools

Variables	N	Mean	SD	Df	t-value	Sig. values
Boys	9	45.44	22.55	23	1.64	0.114
Girls	16	32.48	16.66			

Table 4.7 shows that t-value (23) =1.64 is not significant because $p=0.114 > \alpha=0.05$. This shows that boys' (M=45.44, SD=22.55) and girls' (M=32.48, SD=16.66) 5th classes in elementary schools do not differ in class size.

Does 5th Grade Academic Achievement differ between Boys' and Girls' at Elementary Schools?

Table 4.8 Comparison of 5th Grader's Academic Achievement between Boys' and Girls' Elementary Schools

Variables	N	Mean	SD	Df	t-value	Sig. values
Boys	9	132.11	58.84	23	-3.56	.002
Girls	16	217.96	57.00			

Table 4.8 shows that t-value (23) =-3.56 is not significant because $p=.002 < \alpha=0.05$. Table 4.6 shows that t-value=1.64 is not significant because $p=0.114 > \alpha=0.05$. This shows that boys' and girls' 5th classes in elementary schools differ in Academic Achievement .Girls' Academic Achievement (M=217.96, S.D. =57.00) is better than boys' Academic Achievement (M=132.11, S.D. =58.84).

Do Class Size and Achievement Scores of 5th graders at Elementary Schools correlated significantly?

Table 4.9 Correlation between Class Size and Mean Achievement Scores of 5th at Elementary schools

Variables	N	Mean	SD	R	Sig. values
Mean	25	186.88	70.30	-0.542	0.005**
Class Size	25	19.58	19.58		

*P<.05, **p<.01

Table 4.9 shows that value of Pearson $r = -0.542$ is significant because $p=0.005 < \alpha=0.01$. This shows that there exist strong and negative correlation between class size and Academic Achievement of 5th grader's in elementary schools.

5. Discussion, Conclusion and Recommendations

5.1 Discussions

Diane Whitmore Schanzenbach (2014) reviewed the literature and reported that class size is significant predictor of students Cognition, Affective and Psychomotor outcomes. The study analyzed the relationship between class size and students' academic

achievement. Strong and negative correlation was found between class size and academic achievement of elementary schools. The results of the study were similar to the research studies conducting to find out the relationship between class size and students' academic achievement (Mersch, 2012, ADUNOLA, 2013 and BAKASA, 2011). The results of the study were contradicted to the study as reported by Linnerbrink (2013) in which no significant relationship was found between class size and students' academic achievement in elementary grades in LOWA.

5.2 Conclusion

1. More crowded 5th classes were found both boys' and girls' in elementary schools.
2. Academic Achievement of both boys' and girls' 5th graders in elementary schools were found below to average.
3. No difference was found in class size between boys' and girls' elementary schools.
4. Negative and strong correlation was found between class and Academic Achievement of elementary schools.

5.3 Recommendations

1. Class size may be settled up to the average class size at elementary schools.
2. Employers should be recruited the teachers keeping in mind Class Size or Students' teachers ratio.
3. More teachers training institutions should be established for the production of trained elementary teachers.
4. More studies should be conducted at various levels elementary, secondary as well as higher level.
5. Teachers should be trained in both pedagogy as well as content to make the Students' performance better.

References

- Achilles, C. M., Finn, J. D., & Bain, H. P. (1998). Using class size to reduce the equity gap. *Educational Leadership*, 40-43. doi: 0.3102/01623737021002097.
- Adunola, O. (2013). An Analysis of the Relationship between Class Size and Academic Performance of Students'', *Ego Booster Books, Ogun State, Nigeria*. ISBN: 978-1-105-40587-8.
- Barnard, W. M. (2004). Parent involvement in elementary school and educational attainment. *Children and Youth Services Review*, 26, 39- 62.
- Biddle, B. J., & Berliner, D. C. (2002, February). Small class size and its effects. *Educational Leadership*, 59(5), 12-23.

- Blatchford, P., Edmonds, S., & Martin, C. (2003b). Class size, pupil attentiveness and peer relations. *Journal of Educational Psychology*, 73(1), 15-36.
- Blatchford, P., Bassett, P., Goldstein, H., & Martin, C. (2003a). Are class size differences related to pupils' educational progress and classroom processes? Findings from the institute of education class size study of children aged 5-7 years. *British Educational Research Journal*, 29(5), 709-730. doi: 10.1080/0141192032000133668.
- Blatchford, P., Bassett, P., & Brown, P. (2005). Teachers' and pupils' behavior in large and small classes: A systematic observation study of pupils aged 10/11years. *Educational Psychology*, 97(3), 454-467.
- Blatchford, P., Russell, A., Bassett, P., Brown, P., & Martin, C. (2007). The effect of class size on the teaching of pupils aged 7-11 years. *School Effectiveness and School Improvement*, 18(2), 147-172. doi: 10.1080/09243450601058675.
- Cakmak, M. (2009). The perceptions of student teachers about the effects of class size with regard to effective teaching process. *The Qualitative Report*, 14(3), 395-408. Retrieved from <http://www.nova.edu/ssss/QR/QR14-3/cakmak.pdf/>
- Egelson, P., Harman, P., & Achilles, C.M. (1996). Does class size make a difference? Recent findings from state and district initiatives. Tallahassee,
- Capraro, M. M., Capraro, R. M., & Wiggins, B. B. (2000). An investigation of the effect of gender, socioeconomic status, race and grades on standardized test scores. Paper presented at the meeting of the Southwest Educational Research Association, Dallas, TX.
- Ceballo, R., McLoyd, V., & Toyokawa, T. (2004). The influence of neighborhood quality on adolescents' educational values and school efforts. *Journal of Adolescent Research*, 19(6), 716-739.
- Deutsch, F. M. (2003). How small classes benefit high school Students''. *NASSP Bulletin*, 87 (635), 35-44.
- Finn, J. D., Pannozzo, G., & Achilles, C. M. (2003). The "why's" of class size: Student behavior in small classes. *Review of Educational Research*, 73(3), 321-368.
- Furstenberg, F. F., & Hughes, M. E.(1995). Social capital and successful development among at-risk youth. *Journal of Marriage and the Family*, 57, 580-592.
- Goddard, R. D. (2003). Relational networks, social trust, and norms: A social capital perspective on Students'' chances of academic success. *Educational Evaluations & Policy Analysis*, 25, 59-74.
- Hanushek, E. A. (1999). The evidence on class size. In S. Mayer & P. Peterson (Eds.), *Earning and learning: How schools matter*. Washington, DC: Brookings Institution Press.
- Hattie, J. (2005, May). The paradox of reducing class size and improving learning outcomes. Keynote presentation at the International Conference on Class Size, University of Hong Kong.
- Hirschfeld, P. (2009, June 12). Too many schools, too few students, says ed chief. *The Times Argus*.

- Hanushek, E. A. (1986). The economics of schooling: Production and efficiency in public schools. *Journal of Economic Literature*, 24, 1141-1177. Retrieved from <http://www.jstor.org/stable/2725865>.
- <http://coerll.utexas.edu/methods/modules/classroom/02/howmany.php>
- Henderson, A. T. (1988). Good news: An ecologically balanced approach to academic improvement. *Educational Horizons*, 66(2), 60-67.
- Kornfeld, M. (2010) The Effects of Class Size on Student Academic Achievement in a Rural State. Ph.D thesis, The Faculty of the Graduate College, The University of Vermont.
- Marzano, R. J. (2003). What works in schools: Translating research into action? Retrieved from http://pdonline.ascd.org/pd_online/whatworks/marzano2003_ch13.html and adolescent outcomes. *Parenting*, 2(2), 127-150.
- Shumox, L., & Lomax, R. (2001). Parental efficacy: Predictor of parenting behavior
- Pedder, D. (2006). Are small classes better? Understanding relationships between small class size, classroom processes and pupils' learning. *Oxford Review of Education*, 32(2), 231-234. doi: 10.1080/03054980600645396.
- Peng, S. S., & Hall, S. T. (1995). Understanding racial-ethnic differences in secondary school science and mathematics achievement (NCES No. 95710). Washington DC: U.S. Department of Education.
- Trawler, P.R. and Knight, P. T. 2002. Exploring the implementation gap: Theory and practices in change intervention in higher education policy and institutional change: intentions and outcomes in turbulent environments. Buckingham, U.K: Open University press.)
- Tomlinson, T. (1988). Class size and public policy: Politics and panaceas. Washington, DC: Office of Educational Research and Improvement.
- Tomlinson, T. "Class Size and Public Policy: The Plot Thickens," *Contemporary Education*, Fall 1990, pp. 17-23.
- Vandenberg, K. C. (2012). Class size and student's Academic Achievement, Electronic Theses & Dissertations Jack N. Averitt College of Graduate Studies (COGS). Georgia Southern University, Digital Commons@Georgia Southern

A COMPARATIVE STUDY OF QUALITY EDUCATION OF PRIVATE PUBLIC SCHOOLS OF MARKAZ MANDRA, TEHSIL GUJAR KHAN, DISTRICT RAWALPINDI

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ABSTRACT

Objective of this research was to comparatively assess the effectiveness of public and private institutions regarding equipping the teachers with requisite practical teaching skills. This research also helps to know what is actually meant by ‘quality education’. In this work, questionnaire is used as an instrument to evaluate quality of education in private and public schools. Evaluation was done to get to know which sector provides better education to the students and what kind of opportunities are available for faculty and students. This assessment is helpful to find out the factors which can play a vital role in raising the differences of education system in both sectors. This work particularly illustrates the education system of schools of from Mandra region. This research makes the readers know about the quality education and its importance in our society. It also proposes the effective strategies to improve education in the schools of concerned area.

Keywords: Education, Quality education, Private school, Public school

1. INTRODUCTION

Through education we bring change in behavior of an individual. Education influences overall development of society. It helps in character building of human beings as well. Islam has also laid great importance on seeking education.

In Holy Quran, Allah says:

“Are those equal, those who are known, and those who, do not know”

Education is best source to bring society on right path. Holy Prophet (SAW) said:

“Seek knowledge from cradle to grave”

Education builds up a nation. Without education, no nation can prosper.

"You know that importance of education and the right type of education cannot be over emphasized... If we are to make real, speedy and substantial progress, we must earnestly tackle this question ... having regard to the modern conditions and vast developments that have taken place all over the world", says Quaid-e-Azam

The Quran has emphasized greatly on education for both male and female. The Quaid has quoted its importance for the new nation. Education remained the most neglected feature of national life during the last half century. Literacy rate of females is very low in world and also lowest in Muslim countries. The teachers are low paid, under-trained and discouraged and the quality of education is very low. The quick progress of East Asian Countries is mostly attributed to their excellent system of education. For primary education, insufficient resources are allocated in Pakistan by planners, furthermore, the money allocated was not successfully spent. Pakistan and government of Pakistan defined different areas for achievement in education in all policies and reports. They put great emphasis on gaining vocational education and on the improvement of quality of education at different levels.

All Education Conference 1947 made three basic recommendations, one is education should be encouraged by Islam, second free and compulsory elementary education and third is emphasis on technical education. When an effective system of education starts in a country then it makes the person leader of the world both socially and economically. Education develops the roots of any nation. Every nation prepares their generation according to their ideological, cultural, social and religious norms through education but in Pakistan education system is useless. Western countries have made huge advancement towards science and technology in 21st century but we are still lagging behind in respective fields. Our education systems do not convey qualitative knowledge neither make people much aware about moral values. Our education system does not protect our religious and political norms. Therefore, there is a need to have a very well established and advanced education system so that we can compete with this world.

School principals and teachers play a critical role in school improvement and students' academic success. Teachers have a direct impact on students' performance and on their classroom activities. Schools greatly influence teacher quality by recruiting,

developing and retaining excellent teachers—while also removing less effective ones—and by ensuring all students have a good understanding about all concept

1.1 Research Objectives

Following were the research questions:-

1. To study the perception of head teachers and teachers about teaching problems and their solutions.
2. To comparatively assess the effectiveness of both the institutions public and private as regarding equipping the teachers with requisite practical skills for teaching.
3. To explore the assessment system of public and private educational institutions.

1.2 Significance of the Study

The findings of this research would have deep significance for the enhancement of Primary schools and performance of teachers; specifically the result of this research has the following importance for the schools principals, teachers, students and others.

- It may help the school leaders to be aware about the problems faced by teachers and principals and solution for their problems.
- It may give the clear picture of teaching method followed by teachers of private and public sector.

After this research readers will be able to know what types of opportunities should be provided to teachers and students and which type of steps should be taken to make a successful efficient education system in target area.

It may serve as the reference and may call for further in-depth researchers on the topic, mainly improving quality education in Primary Schools of Pakistan.

1.3 Research Questions

Research had following questions:

1. What are the observation of head teachers and teachers about problems and their solution?
2. How evaluate the effectiveness of both public and private institutions as regarding preparing the teachers with obligatory practical skill for teaching?
3. What type of evaluation system exists in both sectors?
4. Which factors can affect a quality education in private and public schools?

5. What are the effective & efficient factors which can help in practicing a good education system in remote areas?
6. What steps should be taken for decreasing this difference between both sectors if their?

1.4 Delimitation

This study is delimited to private and public schools of region Mandra. Research is conducted in seven private and seven government schools. This research collects data from teachers of private and public schools on the basis of their feasibility and accessibility.

1.5 Validity and reliability

The main purpose is to be able to consider information about necessary amendments, to remove the weaknesses and to minimize the misconception in the instrument that would result from analysis of the pilot study results. Principle of NPSC/APS school system was requested to examine and evaluate the instrument in order to discover its validity. The questionnaire was discussed with her in the content area and their expert opinions were used to determine and improve the validity of the instruments.

2. LITERATURE REVIEW

This paper discusses the time of independence when Muhammad Ali Jannah was founder of Pakistan. He wanted and struggled for developed Pakistan. He recognized the importance of education for nation. In 1947 conference of Education, he considered the education is base of any nation development. The Education system was divided in different levels i.e. elementary education, secondary education, higher secondary education and university level. Different sectors play a vital role in education development e.g. private sector, public sector and madrassa. Each sector follows its own curriculum methodology. In policy of 1972 it is decided to nationalize all private schools as well as in policy of 1979 private sector was considered as back bone in delivery of education.

The lack of quality education has been observed in private sector due to few numbers of qualified staff and trained teachers. Private schools lack many facilities. On the other hand private sector exercises better education system different areas. But overall private sector contributes much in the development of Education.

Researcher gave some suggestions like government of Pakistan encouraged the installment of private sector for establishing school in rural areas. He gave motivation to

NGOs for establishing female institutions in rural areas. Researcher concluded that private sector is power of country. Pakistan is still trying to achieve the goals of Education for all (EFA) and Millennium Development Goals (MDGs). Due to incomplete resources government couldn't solve educational problems. According to this research, 50% of population is illiterate in our country. Furthermore, this research reveals that private sector not only improves educational system in our country but also develops new culture and develops respect of our values and norms in our new generation. The national education policy emphasized on establishment of private institution in our country. Both sectors improve quality education by working together (Qaisrani, 2011).

2.1 Quality Education

Dakar defined different features for achieving excellence in education i.e. healthy and motivated students, active teaching learning environment, appropriate curriculum and good resource allocation. An access of quality education is right of every child. Cognitive development is a major purpose of education. Then the next element of education is development of student inventive and emotional abilities.

Every nation has always showed up considerations on quality education. They stressed on child centered approach for teaching learning process. They always emphasized on curriculum that respond to social and cultural need of learners. (EFA Global Monitoring report, 2005).

2.2 Teaching Aids

Technology benefits us in every aspect of life especially in field of Education. We provide quality education to student by helping them in better concept formation, concept elaboration and improving reading skills by making the use of advanced technology in teaching process. A concept of smart classes is new method of teaching that was introduced in India by EDUCOM in 2004. In it teacher uses instructional material, 3D animated modules and visuals. The concept of smart class room makes education interesting as well as provides a chance to the students to enhance their performances. Smart class room is equipped with computer and audio-visual aids, white board, DVD's, PPT's and all displayed through data projector. Due to this type of classes teachers keep the students engaged in all learning processes successfully. Teachers try their best to make student's concept clear and sound by showing various videos and at the end of class

precise assessment of learning outcomes can be achieved. This also assists teachers in improving their teaching skills. (Selvam, 2014)

In 1986 national policy on education has paid great stress on using of teaching aids. Teaching aids make process of teaching- learning process more effective. Teacher requires teaching aids to transmit maximum quality of knowledge with a lesser amount of time and efforts. Basically adjustment of behavior is learning. Students learn through experience and senses.

We learn 1.0% through taste, 1.5% through touch, 3.5% through smell, 11.0% through hearing, and 83.0% through sight. We remember 20% when we hear something, 30% when we see, 50 % when we see and hear, 80% when we say and 90 % when we say and do. Some important audio visual aids like black board, diagrams, tables, graphics, charts, models, film, strip and computers are mostly used in teaching-learning processes.

In 1996 a comparative research is conducted by Syed Kamal-ud-Deen. The objective of this research is use of teaching Kit. This research compares the use of teaching Kit in private and government schools of Baluchistan. Later, this research concluded that 15% government schools and 50% private school were used teaching Kit. As a result student performance was good in private school as compare to government school student. Many other studies have been conducted in other areas and on national level. The findings of studies can be summarized as teaching kit is necessary for better teaching-learning process. Implementation of teaching kit or teaching aids while teaching creates interest in students in learning new things (Mirza, 2003).

2.3 Teacher's Qualification

Quality of education mostly depends on quality of the teacher. Teaching not only presents textbook information and later also assess the ability of a student to repeat it. There is no magic formula for transmitting knowledge from teacher mind to student mind. It is a complicated and challenging job. Emphasizing the learner, guiding the learner and promoting learner development are basic fundamentals that are important in the modern teaching. Child learns when he/she participates and involves in learning situation and teacher provides them chance to participate in different experiences. Teacher creates learning situation and motivates student to learn that's why teacher is respectable personality but unfortunately teacher is poorly paid and there is little reward in teaching profession (Kochhhar, 1985).

2.4 Class Strength

The researcher discusses that group size effects on individual learning as well as it has an impact on nature of interaction and development of an individual children. Physical, emotional, social and cognitive domains of individual development were observed in term group size. In small group teacher easily develops activities and grouping of children is helpful in making daily schedule and program resolutions. It makes easier for staff to guide student in better way and familiarize them with behavior pattern, issues and concern of children and resolve conflicts. Grouping creates more positive relationship between students and teacher. Group size does not produce quality automatically but also require qualified staff and qualified staff cannot help to produce quality without having interaction and individual relationship with the students. (Wilson)

This paper defines effects of class strength on student performance. In past three decades, student-teachers ratio decrease intensely. In this paper data is collected internationally and discusses extraordinary large differences in student achievements. Researcher point of view in some time in term of specific teacher, specific group of student and subject—where class size is important and small strength is effective (Hanushek, 1998).

Class room behavior and result of test were great stimulus in student strength. When student learn in small strength they will learn more or learn effectively. Researcher suggests that resource should provide to students. When strength is more! than difficult teach effectively. Improve the monitory system in schools and offered opportunity to teacher to share raised difficulties. Teachers tech more effectively and spend more time on active teaching rather in managing on classroom. In small classes student face less problems in learning process. Student engagement is increased in learning activities (class size reduction in K3).

Research shows that early grades of student produce good result in small size. In small classes teacher teaches in better way rather than large classes because in large class interaction of students and teachers become difficult. In recent times some policymakers and education specialists have discussed that influencing other educational contributions would be more effective or more cost-effective than class-size reduction. Recent studies have found that teachers with high value added on consistent test scores also have an

impact on such successive outcomes for their students. Strength of class directly influence on teacher or student performance.

2.4 Facilities Make Difference between Both Sectors

In 2010 a survey was conducted by ASER on 120 schools of Khyber Pakhtunkhwa and 390 from Punjab. The information was collected from children of the age 6-13 years. Related information was collected from government and private schools. According to report 15% children were out of school in the province, 34% children were enrolled in private schools and 65% children's were in government schools and 1% were in madrassa and other type of institutes in KPK. 67% were enrolled in government schools and 31% in private schools of Punjab. This survey checks the learning level of students in both sectors. The percentage of private schools is better than the government schools. Students of private school are better learners.

This was conducted in Punjab, Sindh, and Baluchistan and was concluded that the private sector plays a very important role to sport government in education sector but learning level of KPK student's rate was high as compare to Punjab. Punjab was among the low literacy ranking districts and KPK was selected as higher literacy ranking districts.

One reason is physical facilities that make the big difference between private and public sector. In private schools quality teacher is available. More rooms exist for teaching and have many other accessible facilities e.g. toilet, drinking water and boundary wall. In Public schools there are playgrounds unlike the private schools. Attendance is major quality indicator. Attendance of teachers and students more effects on learning process. In this survey it is concluded that in private school, teachers and students attendance is more than public school teachers and students. Government should increase the quality and physical facilities. Government is responsible to provide at least primary education to the citizens without any discrimination because it is necessary for all (Amjad, 2012).

In national education policy 1998-2010 importance of teachers has also discussed. The quality of education depends on numbers of teachers available and their qualification. It is considered that the teacher is major factor to implement all educational requirements. According to Dakar framework for EFA the qualification of teacher is very low and they are generally matriculate. No opportunity to in-service training and monitoring (Mirza, 2003).

2.5 Evaluation of Teachers

Performance appraisal is used to enhance the teaching process. Performance appraisal measures level of motivation in teachers, knowledge, lesson planning, preparation, class room environment, teaching methodology and student behavior. This study analyzes preparation of class, class room environment and teacher appraisal is good in private schools as compared to public schools. Researcher concluded that private institutes are producing better results than government schools however government schools have more facilities than private. It might be because of better monitoring system in private school. In public schools appraisal system is not good. There is a need to develop good and foolproof appraisal system in public sector (Farooqi, 2011). This research discusses Discipline as factor of learning process. Discipline in class room is affected by class size, participation of students in class activities, parent teacher interaction and individual attention. Teacher has to be fair with all students and has to solve problems of students. Biasness of teachers creates disruptive behavior in students and develops lack of respect in students for teacher. In class teacher must provide friendly environment to students where student can feel comfortable to learn. Teacher may be apprehension about individual difference and take care about every learner. It is also necessary to arrange the parents and teacher meeting to solve problems related behavior. Meeting between teachers and administration should be arranged to discuss student difficulties. In order to generate student interest in learning process teacher should use A.V aids in class. They should use modern techniques to avoid indiscipline. To enhance teachers' quality they provide refresher courses. Some important techniques should be used to improve classroom discipline e.g. facial expression, eye contact and body language. When teachers guide to students then students get motivated to complete work and behave properly. If teacher gives home assignments regularly then he/she should check it properly to create discipline.(Haider, 2012).

2.6 Attendance as Indicator

In this research, there is a main focus on school attendance effects. Researcher defines student attendance as a great influential factor on student achievement. Increasing the rate of attendance becomes tool for achievement. Due to level of absence result become low and poor performance of student leads him to educational failure. Improvement in attendance can reduce achievement gaps. Socioeconomic and ethnic background is one factor of low attendance. This research was conducted in New York

and researcher found that 20 percent students were absent. Poor attendance reflects the lack of high quality. Improvement in curriculum is not possible if student is not present in classroom. The researcher suggests that if attendance is good then student gains more knowledge. Good attendance not only brings good results for student as well as produces good results for school. This research recommends checking school policies and making presents aware about importance of attendance. Create a climate in which staff, student and parents know the bad effects of attendance.

School should identify the barrier's that's responsible for low attendance and interact with parents and community to address them. School must have proper record for monthly attendance. Currently New York has five states that does not contain any attendance record. Improvement of the rate of attendance is necessary to provide standard curriculum and better learning environment (Philbeck, 2011).

In this paper Dories Jean Jones discusses school attendance is an important factor in school success. Academic achievement directly related to student attendance. This shows direct relationship between student success and good attendance. Socio-economic status and its impact on dependent variable of student achievement has been identified in this study. This research provides a complex picture of poor or minority children who are at risk in our institutions. Educators need to find out the flaws of education system and analyze where and why education breakdown begins and what strategies should be adopted for development and should resolved the issue related academic achievement (Jones, 2006).

Attendance is linked to all type of outcomes of students. Poverty, unemployment and negative health outcome are some factors that can lead to low level of attendance. Due to poor rate of attendance especially unauthorized absentees influence an academic achievement of students. There are three categories of absence; first is authorized, second is unauthorized and third is unexplained.

3. Methodology

The survey design was adopted in this research study it involves the collection of data to precise. In this research researcher prefers to collect qualitative data. Schools of Mandra city were selected as population in this study. The sample of the study was comprised of randomly selected 100 teachers from randomly selected 14 schools 7 was

government and 7 was private schools. For collection of data, researchers developed a questionnaire one for head teacher and other for teacher.

Each questionnaire consists of twenty items that are constructed by researcher. The questionnaire has parameters and indicators to identify the quality education. Include: Satisfaction with Job helps in achieving Effective teaching, Teaching Aids, Teacher's Qualification, Class strength, Facilities make difference between both sectors, Evaluation of teachers, Attendance of teachers as well students.

Researcher found government sector have more qualified and trained heads and teachers to manage their institute in sound method than the private sector. Private sector has best admission criteria than the government which is merit based selection of students. Required qualification for teachers is respectable in government sector than the private sector schools which is starting with B.A/BSC. Frequency of meeting of head with staff on daily base is better indicator for effective learning that exists in both sectors. In government sector, generally schools class strength is below 30 that is better for noble teacher student interaction. The evaluation of teacher's performance is not satisfactory in both sector schools.

Fewer leaves allowed is good indicator for effective teaching that is found in private schools only. Charts and boards are the basic need of any school which is sufficient in both sectors while in present era, computer and advanced AV aids is the most significant and emerging tool which is not sufficiently available in both sectors. Co-curricular activities are regularly arranged in private schools while government schools do not give much importance for arranging such activities for students.

4. Data Analysis

Research has revealed that discipline is good in schools of both sectors. Workshops for teachers are arranged frequently by government in public sector on the other side in private schools teacher have not this type of opportunity. The student monthly attendance is worthy in both sectors. In both sectors tests are taken but private schools take more oral as well as written test than the public sector. In government schools, heads have more good and co-operative attitude with their teacher's staff.

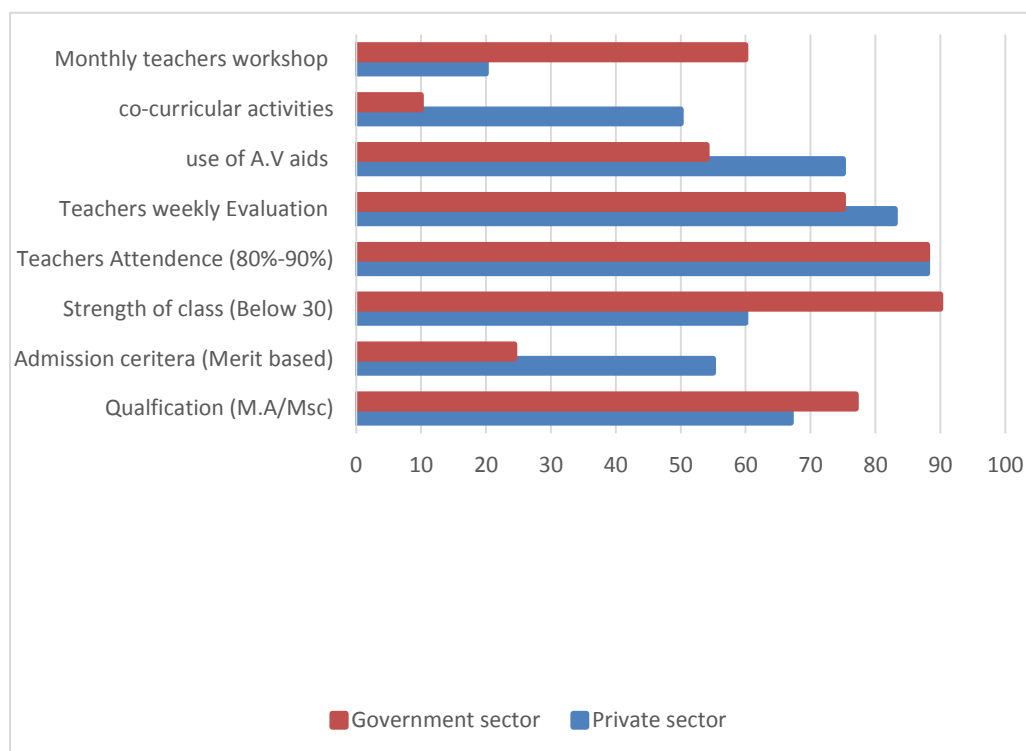


Fig. 4.1. Graphical comparison analysis of Quality Education in Private and Public Sector

The above bar chart is showing percentage verse quality indicators. It shows comparison analysis of quality education for both private and public sectors, carried out by questionnaire survey in the target area. Comparison is made using different indicators which best distinguish quality education in both sectors. Merit based admission, teacher's weekly evaluation, use of effective A.V aids and co-curricular activities are some essential factors, play a significant role in the setting a good education standard. In this regard, private sector outperforms public sector in the target area.

5. Conclusion

The results show that in government sector head teachers are more qualified and skillful. While students selection criteria is best in private institution which is based on merit. Qualification with professional qualification is made compulsory in public sector teachers. Both sector organize meetings on daily basis. Monthly teacher's attendance lies in range 80-90 percent in both sectors.

Both sectors do not evaluate their teacher's performance on regular basis. Moreover, parent's teacher meetings do not held on need basis in any of two sectors.

Further, both sector schools have insufficient AV aids which have become a basic need for acquiring quality education. Government sectors do not conduct co-curricular activities for students while private sector does. On other hand workshops for teachers are arranged regularly by government which is lacked in private sector. Overall discipline in both sectors is good. The reason for a teacher of selecting a particular institution depends on his/her satisfaction; in government schools mostly teacher's reason is in having good salary while in private schools mostly teacher's reason lies in good reputation of the institution in the community.

Therefore, overall analysis concludes the education quality in private sector is far better than in public sector.

5.1 Recommendations

Education quality would be improved by qualification of teachers. Conduct teacher parents meeting on need base. Launch workshop or in-service training program regularly to enhance teacher's professional skills. Evaluate performance of teachers regularly by formal and informal approach. Organize co-curricular activities for students regularly for construction their noble personality. Provide modern A.V aids to teacher for effective teaching learning process.

References

- Akhtar, S. N., Hashmi, M. A., & Naqvi, S. I. H. (2010). A comparative study of job satisfaction in public and private school teachers at secondary level. *Procedia-Social and Behavioral Sciences*, 2(2), 4222-4228.
- Amjad, R. (2012). A comparative analysis of the role of the private sector as education provider in improving issues of access and quality. DPRC working paper.
- Connolly, F., & Olson, L. S. (2012). Early Elementary Performance and Attendance in Baltimore City Schools' Pre-Kindergarten and Kindergarten. *Baltimore Education Research Consortium*.
- Dar, H. (2012, june). Private schools quality of education in Pakistan, The express tribune. Retrieved from www.tribune.com:
- Farooqi, D. M. T. K., Khan, D. H. M. A., & Arsalan, M. (2012). Comparison Of Performance Appraisal System In Public And Private Sectors Higher Secondary Schools. *The Sindh University Journal of Education-SUJE*, 41. 148-166.
- Haider, Z., Khan, H., Munir, F., Latif, F., & Bari, S. Analysis and Evaluation of Discipline Issues in Public and Private Sector Institutions.
- Hanushek, E. A., Mayer, S. E., & Peterson, P. (1999). The evidence on class size. *Earning and learning: How schools matter*, 131-168.

- Iqbal, M. (2012). Public versus private secondary schools: A qualitative comparison. *Journal of Research and Reflections in Education*, 6(1), 40-49.
- Jones, D. J. (2006). *The impact of student attendance, socio-economic status and mobility on student achievement of third grade students in title I schools* (Doctoral dissertation, Virginia Polytechnic Institute and State University).
- Jukes, M., & Desai, K. (2005). Education and HIV/AIDS: Paper commissioned for the EFA Global Monitoring Report 2006, Literacy for Life.
- Kochhar, S. K. (1992). *Methods and techniques of teaching*. Sterling Publishers Pvt. Ltd.
- Musser, M. P. (2011). Taking attendance seriously: How school absences undermine student and school performance in New York City. Retrieved from Attendance Works website: <http://www.attendanceworks.org/research/elementary-school-absenteeism>.
- Nasir, Z. M., & Ali, S. Z. (1999). Do Private Schools Produce More Productive Workers?[with Comments]. *The Pakistan Development Review*, 937-954.
- Qaisrani, N., Mughal, S. H., Solangi, G. M., Faiz, S., & Soomro, A. Q. (2011). Understanding Role of Private Sector in the Development of School Education in Pakistan. *International Journal of Learning and Development*, 1(2), 38-45.
- Rashid, M. (2011, 10 march). quality education"a challenge to third world centure". Retrieved from <https://haseebakmal.wordpress.com/2011/03/10/quality-education-a-challenge-to-third-world-countries/>
- Rehman, H., & Khan, N. (2011). Flaws in Pakistan's Educational System. *Abasyn University Journal of Social Sciences*, 4(1).
- S.mirza, D. (2003). Quality of primary education. Islamabad: UNCO office, Islamabad.
- Selvam, D. (2014). *Digital Teaching and Learning*. New Delhi (India): Random publications.
- Shoeby, S. M., Saleem, F., Razzaq, A., & Khan, N. R. (2012). Link of satisfaction commitment and performance on faculty members' performance at higher education institutions in Pakistan. *Management & Marketing*, 10(2), 223-232.
- Smith, P., Moinar, A., & Zahorik, J. (2003). Class-Size Reduction. *Educational Leadership*, September.

USE OF SOCIAL MEDIA (FACE BOOK) TO PROMOTE HEALTH EDUCATION: CONTENT ANALYSIS OF HEALTH PAGES AND USER'S PERCEPTIONS

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Abstract

In today's world of technological advancements, social media is very popular among people of all age group due to its easy and fast access of getting and disseminating all type of information and knowledge. With this consideration, social media is also contributing to promote health education which is very crucial part of every one's life. The present study encompasses the content analysis of the face book pages on health education to explore how and what types of health education benefiting to the users. Ten different face book pages were selected which is promoting health education with different names and contents. The discussion with the followers of these pages was also generated on facebook to know their opinion regarding the health pages. The analysis depicted that number of face book pages related to health education are based on physical and mental health by focusing providing information related to health habits of eating, and life style. Few pages are also providing spiritual and environmental health to enhance health seeking behaviors. As these facebook pages develops as community and public groups, therefore, numbers of likes and followers shows popularity among the people of all ages who are not only getting benefits but also share more information on health matters. In this way, everyone can get access to various health matters to upgrade their knowledge in terms of health related research articles, books and health related website. The followers who like these pages are having the opinion of getting benefits from these pages in terms of attaining knowledge about healthy living. It is concluded that besides providing the general information to the audience, the health related facebook pages are also promoting research horizon to explore the different avenues of health issues. Based on some discussant's opinion it is recommended to verify the authenticity of the information given before following it as health is very crucial and sensitive matters for the individuals.

Keywords: Social Media, Health Education, Facebook

1. Introduction

In today's world of technology, social media is playing a significance role in promoting health education. Through easy access, interaction with largest audience and cheaper accessibility of information, it is getting popularity among people of all ages

across the world. Beside only giving information about health matters, social media also enables to interact with health care providers, inter-professional communication in emergency management (Levac & Sullivan, 2010)

Pew Research Center Publications (2009) estimated that that 61% youth in USA use social media for health information. Neuhauser & Kreps (2003) mentioned the reason of relying on social media is due to of its easy availability and frequent usage of internet. Similarly, Farhi (2009) also reported that as the internet is available 24/7 which makes the life easy and accessible to get health education through social media.

It is necessary to expand the appropriate use of social media for health promotion (Brad et al 2014). There must be performance measure indicators to evaluate the authenticity of different pages and sites posted health information. Health organization needs to monitor the growth and progress of such social media to promote healthy environment and accurate information (Judy, 2012).

With the advancement of technology, numerous forms of social media are available and easily accessible. Among all, face book is widely spread and in use of larger population. It is using as largest platform to create awareness on health matters among global population. Park (2011) conducted content analysis of face book pages of health organizations and illustrated the basic information; guidelines, suggestion and planning regarding health life styles are present on health pages. Number of likes and comments indicated that users take interest and follow the health information and want to know more about it. The suggestion and comments by the users and followers helps the health organization for strategic planning to disseminate more accurate and precise health information.

Social media has varied distinguishing features participation, directness, discussion, as well as making group of people. Feedback mechanisms, such as likes, comments, share, facilitate more participation from users of social media and encourage a discussion among users (Mayfield 2008; Trusoy et al, 2009). Participation enables consumers to interact and understand the health matters by networking with the users to improve their knowledge and familiarize themselves with health matters (Nutbeam, 2000; Kalichman et al., 2002; Guedelman et al 2002). Generally the information posted or shared on the pages is operated by the users of that particular face book page (Gangadharbatla 2011). By considering the importance and growth of social media

particularly face book, healthcare organization also utilizing its services to promote health matters and invite larger audience to be a part of healthcare decision and planning (Chou et al. 2009).

Currently face book has more than 750 million users and 30 billion pieces of content such as web links, new stories, photo albums, and blog posts etc. It also enables health organizations to use face book applications and allow users to get more information on their health and diet habits (Donohue 2009; Dugan 2010). Beside this, it is also facilitating health insurance agencies to market their products and health programs and to interact with the customers (Terry, 2011).

2.1 Significance of the study

On the basis of above evidence of fastest growing and accepting medium of social media, facebook is popular among all age groups who performed different activities on it according to their interest and need. Among all the activities, health education is an important concern which information is frequently shared on facebook through different pages. As health is very critical matter, therefore it is necessary to understand what types of information facebook pages are providing and how users are getting this knowledge for their own health concerns. The study is intended to explore health related facebook pages, their information on types of health concerns, and follower's opinion about these pages.

3. Methodology

This section comprises of research objectives, research design and procedure adopted to conduct the study.

3.1 Objectives:

1. To conduct content analysis of the face book pages disseminating different types of health education.
2. To explore how and what types of health education benefiting to the users.

3.2 Research Design

Using qualitative research paradigm, the present study encompasses the content analysis of the face book pages on health education to explore how and what types of health education benefiting to the users. Online group discussion was also generated on

facebook to explore the user's perception about the usefulness of health related pages on facebook which they have followed.

3.3 Sample Size

Ten different face book pages were randomly selected which is promoting health education with different names and contents. Only those pages were selected which have at least 1000 likes. About 25 followers of health pages participated in discussion and shared their views about using these pages for attaining health equation. All of the followers who took part in the discussion were belong to youth age group

3.4 Procedure

At first stage of starting the research, number of health pages on face book was searched by using the researcher's own face book account. Initially 15 pages were downloaded from which 10 were selected having at least 100 likes. In second phase the pages were thoroughly studied to know what type of health information they are sharing, how many people are following these pages and what are their general comments to any information shared on the page. At last stage, the discussion was generated among the followers of the selected page to know their perception about the benefits of these pages for them.

4. Data Analysis

The collected data from the content of the pages and from the discussants is described under different themes. Themes were generated according the objective of the study. So the study included thematic analysis to describe and interpret the data.

4.1 Theme 1; Types of Health Education

The content analysis of ten face book pages with different names on health matters indicated that majority of the pages disseminating the information on general health education. This includes, eating habits, patterns for health living, exercise practices, necessary food groups etc. Some of health pages also provide information on medication for general and epidemic diseases and precautionary measures to overcome the illness.

Regarding information on food, health eating habits such as time to eat, types of food and nutrition required to body and how to balance the dietary practices. The focus of information was particularly those audience who want to lose their weight in health way.

It was also beneficial for youth which usually neglect their health eating habits and prefer junk food as compare to regular organic diet.

The pages named “Health Choices”, “Healthy and Natural world”, “Health and Fitness Tips”, “Health Life body”, “Health Eats” and “Health Tips & Advice” providing bulk of information on food patterns, food choices and food preparation for maintain the health bodies. The basic purpose of providing information through these sites is to create health awareness among the larger audience through these sites

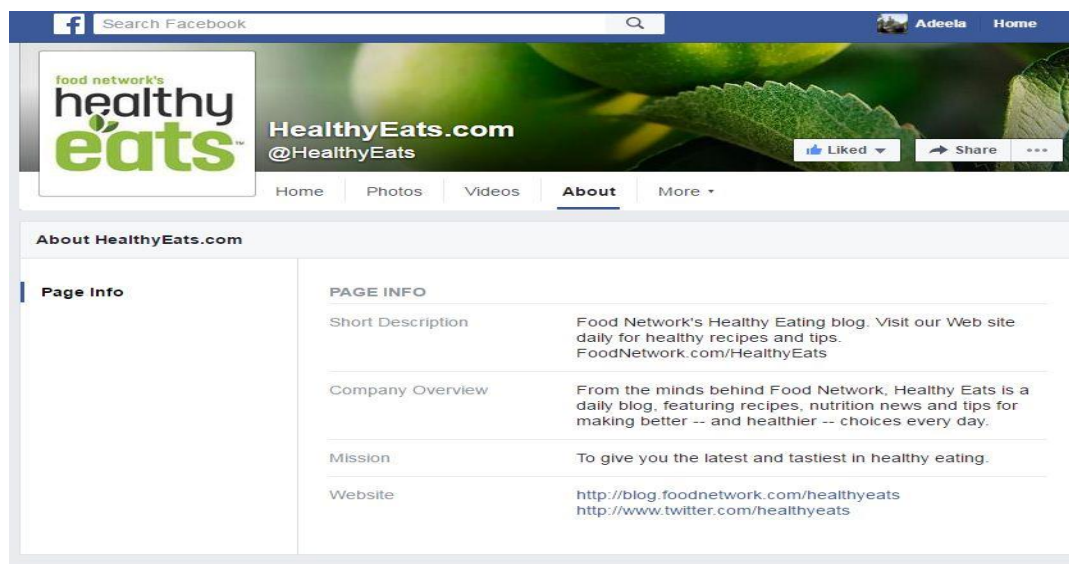
Another facebook page titles “Health Digest” providing blend of health related information such as health diet, and common diseases break through and remedies for treatment. The page also provides research articles on prevalence of different diseases, and physicians’ recommendation and guidance to get relief from the disease. The articles on avoiding certain types of food in specific health condition, how to lose weight without medication, beauty tips, necessary food to intake etc are the part of this page which are written by health factionaries and researchers. The page mentioned its description as:

“We believe health is wealth, we provide informational health and wellness tips”

The page health life body is also providing research based articles on different matters of maintaining healthy body and preventing illness by adopting healthy food. As the pages given it introduction as:

“Health Life Body is place where we want to create atmosphere full with information’s. Our goal is bringing new and original posts about Health Life and Body. Health is one of the most important things. We bring you articles with all information’s you need to know about how to stay health, prevent illnesses, cure illnesses. And yes, you will see that in our attempts to keep you informed we always put some twist, making your experience with us more educative and fun”.

The content and information of the pages also shows that some health organization prompting their organization website and marketing their products through these face book pages. As almost all of the pages were given the websites links for more details on particular health matters. They also mentioned the website link in the description sheet of the page as shown in below figure:



4.2 Theme 2: Pictographically Presentation

By adding images to face book pages attract the audience as well as clarify the content. All the studies pages were glorified with real images of food, exercise patterns and steps, and drinks etc. The pictures explain the contents and make it easier to remember as visual representation keeps in mind for longer period of time. The images also help the audience to be familiar with specific foods in case they have not seen such type of food. Number of food mentioned at face book pages were new to known for the researcher as never heard about that. The name of some items like vegetables, dry fruits, and folk medicines were known but not seen that which helps to identify the required items. The health tips and suggestion were also presented with warning signs and symbols which were eye are catching and kept in mind for long due to amusing and colorful signs and images used. The cover page of the face book pages also presented with certain food and eating items to attract the audience, such as depicted in the following page:



4.3 Theme 3: Followers

All of the studied health pages had more than 6000 likes, an average 1000 comments on different posts and more than 2000 shares. Some of the pages had more than one lack likes and shares. More the likes and shares enhance the marketing of the page, as most of the face book pages on health were designed by health organization which need to promote their company and products. These pages are also using for marking as well as research purpose. Number of content was supported with the research based articles by giving the article links on the post and comments. Hence, the post is become more authentic by attaching external links and some additional information which also attracts the audience.

The users who liked the pages, posted different comments and shared the pages were representing the entire world. The users from both the developed and underdeveloped countries as well belongs to any age group, gender, religion and ethnicity were following these pages to gain information on different health matters. Most of the comments are related to extending the information provided at page and also ask the details of the specific food and its usage. The users who had specific knowledge on any topic also added the information in comments.

4.4 Theme 4: User's Perception and Experience

Regarding the usefulness and authenticity of the health information given on different face book pages, a discussion was generated on my own face book page and get feedback from all those friends and their friends who are following health pages on face book. Number of respondents mentioned that the information provided is very useful and they follow it. One of the respondents mentioned as:

“Few reliable ones are highly informative; thus, allowing the right amount of knowledge to flow around us. Additionally, I believe, the traditional way of healing i.e “Totakey” (Folk remedy) which is remarkably making its place in today’s scientific era, that seems strange sometime that still face book is providing traditional knowledge”

Another respondent stated;

“Yes I do like these pages, I want to be aware of health issues and these pages are informative and in easy access.

The information provided on health pages are very informative and related to our daily life activities but most of us do not pay much attention to as feel not so important. Likewise mentioned by one of the respondents as:

“Some of the information is very informative such as nutrients. In fact some of the tips are really useful in daily life, I am in the favor of these pages. These pages are really very helpful as I got information on new techniques that are improving our health. These pages also provides up to date information about current new trends occurring around the world so it is very much useful to follow health pages”

Hence the comments on such pages also illustrated that users are following the instruction and applying into their daily life. Yet, the truthfulness and authenticity of the information is required before using any remedy. Because all bodies are not same, so the information given as general but with specific health problems need to consider it by consultation with their physicians. Similarly, one respondent stated that:

“These pages are good for just getting awareness but I believe that very few are useful as mostly are not authentic”.

Likewise another respondent also mentioned as:

“For me I don’t follow these pages because they are not authentic. To just see and like is another matter, but we cannot blindly rely on the information given specially medicines, beauty products, fitness and beauty creams and tablets etc”.

So, the responses of the users of health pages are combination of thoughts about the reliability and usefulness of these pages. The users are satisfied with the information and general knowledge of the health concerns available but feel hesitate to follow due to their trustworthiness.

5. Findings, Discussion and Recommendations

5.1 Discussions

The study reflects the usage of social media (face book) for disseminating the information and knowledge to promote health education. Due to it easy and cheap access via internet the largest audience is getting benefit from it. As Farhi (2009) also reported that as the internet is available 24/7 which makes the life easy and accessible to get health education through social media.

Currently face book is the rapidly growing and wider medium of communication to promote health education. Most the content of these pages were based on general information related to food and dietary habits for health living. They focused on natural remedies and food for keeping the body health and not be over or under weight. The benefits of having certain food are also mentioned with the details of its effects on body. Many of the pages also highlighted the beautification of body by using food, Vegetables and all other natural ingredients taken from milk and dairy products. It seems to be good for the users to avoid over medication to reduce its side effects as the natural ingredients are more beneficial for maintain the body health and curing for any illness.

It seems larger audience fallow this page to get up to date and authentic information and also like to share the information with their own friends which increases the diverse audience across the globe. The arguments also supported by the earliest study by park (2011) that number of likes and comments indicated that users take interest and fallow the health information and want to know more about it. At this matter, the marketing of health products by different companies is so much competitive to reach the largest customers which also put some questions on its reliability and authenticity. As supported by Terry, (2011) that face book also facilitating health insurance agencies to market their products and health programs and to interact with the customers.

5.2 Conclusion

Health related face book pages are providing health education based on physical and mental health by focusing providing information related to health habits of eating, and life style. Few pages are also providing spiritual and environmental health to enhance health seeking behaviors. Numbers of likes and followers shows the popularity of pages among the people of all ages who are not only getting benefits but also share more information on health matters. In this way, everyone can get access to various health matters to upgrade their knowledge in terms of health related research articles, books and health related website. It is also promoting research horizon to explore the different avenues of health issues.

References

- Chou, W. Y. S., Hunt, Y. M., Beckjord, E. B., Moser, R. P., & Hesse, B. W. (2009). Social media use in the United States: implications for health communication. *Journal of medical Internet research*, 11(4), e48.
- Donohue, Shelley (2009), "Facebook Fitness Application: Fit-ify Health and Fitness Tracker," <http://www.examiner.com/fitness-in-portland/facebook-fitness-application-fit-ify-health-and-fitness-tracker> (accessed October 25, 2010).
- Downes, Edward J. and Sally J. McMillan (2000), "Defining Interactivity," *New Media & Society*, 2 (2), 157-79.
- Dugan, Lauren (2010). Healthy Face book Applications You Should Use to Stay.
- Farhi, P. The Twitter Explosion. *American Journalism Review*, 31(3), 26-31, 2009
- Freeman, B., & Chapman, S. (2008). Gone viral? Heard the buzz? A guide for public health practitioners and researchers on how Web 2.0 can subvert advertising restrictions and spread health information. *Journal of epidemiology and community health*, 62(9), 778-782.
- Gangadharbatla, Harsha (2011), "Social Media and Advertising Theory," in *Advertising Theory*, S. Rodgers and E. Thorson, eds. Routledge.
- Gold, J., Pedrana, A. E., Stooze, M. A., Chang, S., Howard, S., Asselin, J., ... & Hellard, M. E. (2012). Developing health promotion interventions on social networking sites: recommendations from The Face Space Project. *Journal of medical Internet research*, 14(1), e30.
- Levac, J., & O'SULLIVAN, T. (2010). Social Media And Its Use In Health Promotion. *Interdisciplinary Journal of Health Sciences*, 1(1), 49-57.
- Mayfield, A. (2008). What is social media? iCrossing. http://www.icrossing.co.uk/fileadmin/uploads/eBooks/What_is_Social_Media_Crossing_ebook.pdf. Acesso em, 3(11), 2011.
- Neiger, B. L., Thackeray, R., Van Wagenen, S. A., Hanson, C. L., West, J. H., Barnes, M. D., & Fagen, M. C. (2012). Use of social media in health promotion purposes, key

- performance indicators, and evaluation metrics. *Health promotion practice*, 13(2), 159-164.
- Neuhauser, L., & Kreps, G. L. (2003). Rethinking communication in the e-health era. *Journal of Health Psychology*, 8(1), 7-23.
- Newson, Alex, Deryck Houghton, and Justin Patten (2009), *Blogging and Other Social Media: Exploiting the Technology and Protecting the Enterprise*. Burlington, VT: Gower.
- Nutbeam, Don (2000), "Health Literacy as a Public Health Goal: A Challenge for Contemporary Health Education and Communication Strategies into the 21st Century," *Health Promotion International*, 15 (3), 259-67.
- Park, H., Rodgers, S., & Stemmle, J. (2011). Health organizations' use of Facebook for health advertising and promotion. *Journal of interactive advertising*, 12(1), 62-77.
- Pew Research Center (2009). *The Shared Search for Health Information on the Internet*, Pew Internet & American Life Project.
- Terry, Ken (2011), "Health Insurers Try to 'Humanize' Themselves via Facebook, Twitter. Retrieved from the web; <http://www.fiercehealthit.com> on April 6, 2015.

SUBMISSION GUIDELINES FOR RESEARCH PAPER

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Introduction is level one heading of research paper. The introduction of the topic will set the stage for explaining the research. It should clearly present the purpose of study and give general overview of main research question and kind of proposed study. Introduction may include following level two headings:

- Objectives of the Study/Research Questions/Hypothesis
- Significance of the Study
- Delimitations of the study (if any)

iii) Literature Review (4-7 pages)

The review of literature should generally begin on a new page. Discuss the literature related to your proposed study. This section is designed to inform readers about past studies that have already been conducted, and provides perspectives on your area of interest. The review should include a brief discussion of any "classical studies" in this area, if appropriate, but the major portion of the content should focus on the past decade of research. It should close with a logical summary of past research and transition to a statement about what should be studied next. After you present what is already known, make your case for your research either answering a new question, getting a new answer to an old question, answering a question about a new population, etc. After you have made your case that your research is going to give new information, you will summarize the major points. Remember that the Introduction discusses the problem. The review of literature should concentrate on solutions (those that exist, those that are still required).

iv) Research Methodology (1-3 pages)

Introduce the general methodology that was used for your study. You should ensure that your research methodology has been designed properly and that all the elements required have been considered.

Research Methodology may include following subheadings

- Research Design
- Population

- Sample and sampling Techniques
- Instrumentation
- Data collection

v) Data Analysis and Interpretation

Mention the data analysis technique and interpret the data accordingly.

vi) Discussion and Conclusion

In this section discuss the findings of data in light of other studies.

vii) Recommendations

Give practical recommendations based on data analysis.

viii) References

Follow APA 6th Edition for referencing style.

General Document Guidelines are as follows:

1. All text must be single spaced.
2. The text is typed in font size 12, Times New Roman.
3. Main headings are 12 bold, centered and subheading are having font of 12 bold at left.
4. Use the page margin of 1 inch on all sides on A4 size paper
5. Indent all paragraphs 5-7 spaces or .5".
6. All pages are numbered in consecutive order using Arabic numerals. The page numbers should be centered in footer of the page.
7. Justify the text (align on both sides your margins).
8. Plagiarism check will be done of research paper and the allowed limit is less than 19%. Self plagiarism is also not allowed.
9. Charts, graphs, photographs, diagrams, etc., are called figures and should be numbered consecutively using Arabic numerals. The figure caption is placed below the figure.
10. Tables should be numbered consecutively in Arabic numerals. The number and title of the table are centered above the table. In the text, refer to tables by their number: e.g. as shown in Table 8,, do not write "the table above" (or below) or "the table on page 32," because the position and page number of a table cannot be determined until the pages are typeset.

GUIDELINE FOR BOOK REVIEW

A book review is a description, critical analysis, and an evaluation on the quality, meaning, and significance of a book. It should focus on the book's purpose, content, and authority. It is a reaction paper in which strengths and weaknesses of the material are analyzed. It should include a statement of what the author has tried to do, evaluates how well (in the opinion of the reviewer) the author has succeeded, and presents evidence to support this evaluation.

The following may be included in book review:

1. Write a statement giving essential information about the book: title, author, first copyright date, type of book, general subject matter, special features (maps, color plates, etc.), price and ISBN.

2. State the author's purpose in writing the book. Sometimes authors state their purpose in the preface or the first chapter. When they do not, you may arrive at an understanding of the book's purpose by asking yourself these questions:

- a. Why did the author write on this subject rather than on some other subject?
- b. From what point of view is the work written?
- c. Was the author trying to give information, to explain something technical, to convince the reader of a belief's validity by dramatizing it in action?
- d. What is the general field or genre, and how does the book fit into it?
- e. Who is the intended audience?
- f. What is the author's style? Is it formal or informal? Evaluate the quality of the writing style by using some of the following standards: coherence, clarity, originality, forcefulness, correct use of technical words, conciseness, fullness of development, fluidity. Does it suit the intended audience?
- g. See the Table of Contents, it can help understand how the book is organized and will aid in determining the author's main ideas and how they are developed – chronologically, topically, etc.
- g. How did the book affect you? Were any previous ideas you had on the subject changed, abandoned, or reinforced due to this book? How is the book related to your own course or personal agenda? What personal experiences you've had relate to the subject?
- h. How well has the book achieved its goal?
- i. Would you recommend this book or article to others? Why?

3. Explain the method of development-the way the author supports the thesis. Illustrate your remarks with specific references and quotations. In general, authors tend to use the following methods, exclusively or in combination.

a. **Description:** The author presents word-pictures of scenes and events by giving specific details that appeal to the five senses, or to the reader's imagination. Description presents background and setting. Its primary purpose is to help the reader realize, through as many sensuous details as possible, the way things (and people) are, in the episodes being described.

b. **Narration:** The author tells the story of a series of events, usually presented in chronological order. In a novel however, chronological order may be violated for the sake of the plot. The emphasis in narration, in both fiction and non-fiction, is on the events. Narration tells what has happened. Its primary purpose is to tell a story.

c. **Exposition:** The author uses explanation and analysis to present a subject or to clarify an idea. Exposition presents the facts about a subject or an issue as clearly and impartially as possible. Its primary purpose is to explain.

d. **Argument:** The author uses the techniques of persuasion to establish the truth of a

statement or to convince the reader of its falsity. The purpose is to persuade the reader to believe something and perhaps to act on that belief. Argument takes sides on an issue. Its primary purpose is to convince.

4. Evaluate the book for **interest, accuracy, objectivity**, importance, thoroughness, and usefulness to its intended audience. Show whether the author's main arguments are true. Respond to the author's opinions. What do you agree or disagree with? And why? Illustrate whether or not any conclusions drawn are derived logically from the evidence. Explore issues the book raises. What possibilities does the book suggest? What has the author omitted or what problems were left unsolved? What specific points are not convincing. Relate the book to larger issues.

5. If relevant, make note of the **book's format** – layout, binding, typography, etc. Are there maps, illustrations? Do they aid understanding?

6. **Summarize**, analyze, and comment on the book's content. State your general conclusions. List the principal topics, and briefly summarize the author's ideas about these topics, main points, and conclusions. Use specific references and quotations to support your statements.

SUBMISSION PROCESS

Only the electronic submissions in MS-Word format are accepted and should be sent to the journal's e-mail address through file attachment.

editor.ijitl@iiu.edu.pk

coordinator.ijitl@iiu.edu.pk

Submission Deadline: Authors can send their papers throughout the year and these will be considered for the publication in subsequent issues of the journal.