

IMPACT OF TRAINING ON TEACHERS COMPETENCIES AT HIGHER EDUCATION LEVEL IN PAKISTAN

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ABSTRACT

The present survey study aimed to diagnose the impact of training on teachers competencies. The study was of descriptive nature. The Competencies of teachers having no training and trained teachers were compared. Teachers Competencies Measurement Scale (TCMS) was used to compare competencies of both cohorts. To measure the impact of FPDP (a training program) on teacher competencies three categories of competencies: pedagogical, assessment & management and research competencies were made. After applying descriptive statistics, t -test was used to find out the difference. Trained teachers showed a significant difference in pedagogical competencies, management and assessment competencies and research competencies. It depicts that in all the categories trained teachers were more competent than teachers having no training were The present study suggests that training program of this type should be continue to enhance the teachers competencies.

Keywords: Competencies, Pedagogical competencies, Assessment & Management competencies, Research competencies, Professional development

INTRODUCTION:

Higher education in Pakistan is not only important for improving the country's economy but also essential for its development as a moderate and democratic nation. Unfortunately, Higher education in Pakistan, both in quality-wise and quantity-wise is under debate. The quality of education is directly related to the quality of teaching staff. Hussain, Sarwar, Khan1 & Khan2 (2010) concluded that to raise the standard of education in Pakistan the quality of teaching staff needs to be improved. Insurrection and improvement in a society has always been due to improvement in the quality of teachers performance for which teacher's training has a vital role.

Kayani, Morris, Azhar and Kayani (2011) says that Professional development through intensive, in-service training can greatly enhance the capacity of universities /colleges teachers in operationalizing the innovative concept of teaching learning process. Realizing the call of time Higher Education Commission (HEC) took the professional development as number one priority. For promoting teaching and learning novelty, facilitating and supporting the faculty members of the universities for excellence in learning, resource development and leadership in the use of technology and approach in education and training in 2003, HEC established its division of learning innovation. It serves as an in-service continuous capacity building and professional development hub for teachers and administrators at higher education level in the country. Learning innovation division designed long term and short-term professional faculty development programs for the purpose of filling the gaps between teachers instruction, which are due to lack of pedagogical skills. Learning innovation division's faculty development programs focused both on content as well as on pedagogies. These conducted to develop master trainers who expected to replicate the same programs in their respective universities. In starts, FPDP was of three months duration but later on, it changed to six weeks duration. These training programs aim to enable university teachers to become more useful envoy of the curriculum. Teachers' competencies are the root indicator of their quality performance. Pedagogical, management & assessment and research competencies are considered essential competencies for university teachers along with a number of other competencies. FPDP's modules were developed on the bases of these fundamental competencies. Present research revealed the impact of FPDP on teachers' competencies.

LITERATURE REVIEW :

At every level, Teachers' competencies to improve their performance are of great importance. Teachers 'competencies not only affect their values, behaviors, communication, aims and practices they also support professional development and curricular studies.(Selvi, 2010). Competencies can be defined as "the set of knowledge, skills, and experience necessary for future, which manifests in activities" (Katane et.al. 44). Fakhra (2012) operationally defined teachers competencies as knowledge and skills of teachers required for effective and quality education at higher education level. These include a set of teaching skills that a teacher at the tertiary level needs to possess, in order to become effective teacher and these are pedagogical skills, management and assessment skills, and research skills.

Since the 60s, researchers are agreed on many aspects and indicators of teaching competencies. Mostly competencies of teachers include the subject-matter knowledge and instructional acquaintance and skills. University teachers, in new era of ICT, are expected to have additional competencies related to

- Research
- smoothing student self-governing learning
- respect for and relationship with students and other teachers (Le, 2003)

Marta, M José & M Angeles (2011) stated two functions of teachers at higher education level which areh teaching and research. Rice (2003) considered teacher competencies as the knowledge, skills and attitudes that suitably meet the societal and proficient requirements of teaching roles and bring about good learning. Teaching competencies can therefore be defined as "an incorporated set of personal characteristics, knowledge, skills and attitudes that are needed for effective performance in various teaching environments" (Tigelaar; Dolmans; Wolfhagen & Van der Vleuten, ., 2004: 255).

NguyenT; Griffin and Nguyen C (2006) summarized three major areas of teachers competence common among the different models of their professional development. These areas are important in process of their assessment as Professional knowledge, Professional skills, and Professionalism and professional ethics. .Bjekic , Krneta and Milošević (2010) considered Professional competences as the system of knowledge, skills, abilities and motivational disposition which provide the effective realization of the professional teaching activities. For effective teaching, there are many features and essentials of personality but all characteristics and competencies

need training, improvement and development. Now teacher's role of knowledge transmitter has transformed into an coordinator, guidance counselor and overseer of learning .In today's teaching learning environment a competent teacher is possible only through a careful program of teacher training.(Jamani2007). B

Jan (2007) in changing scenario of the world felt the great need to improve traditional teaching methodologies and styles, teacher-student relationship, and pedagogical skills and knowledge base of teachers. Fitch and Kopp (1990)opined that in order to improve skills, knowledge, and performance competencies of teachers, in-service training programs are necessary. Before them Eble and McKeachie (1985) said that faculty development has both broader and narrower focus as in broader term it emphases mainly on student learning, whereas in narrower term it focuses on improving and upholding professional competencies of teachers. Later on Memon (2007) also defined that professional development is an alive and unceasing process that is used to improve and enhance knowledge, pedagogy, and experience of teachers. In the same context, Siddiqui, Aslam, Farhan, Luqman and Lodhi(2011) defined Professional Development of faculty members are those activities that are aimed to improve and enhance academic and professional knowledge, skills, abilities and capabilities of teacher.Fakhra(2012) defines professional development as a process by which higher education faculty get training to improve their skills in the following areas: (1). pedagogical skills, (2) skills necessary to engage in scholarly activities like research (3) personal development, and (4) skills in management and assessment and it contribute to enhance their motivation.

THE PRESENT STUDY:

Teachers' competencies lie behind Quality in teaching and education. Today's knowledge societies demand high quality education. No doubt, quality in teaching and education is given and produced by competence of teachers. Jamani (2007) says that The quality and the level of excellence in education depend upon the quality and competence of teachers.. Teachers' performance basically depends on their professional competencies although their commitment and motivation is also important in this regard. Taking this fact into account Higher education commission of Pakistan conducted faculty professional development programs. It is necessary and desired to explore the impact of FPDP on teachers' competencies.

RESEARCH OBJECTIVE:

The main and only objective of the research study was

To analyze the impact of Faculty Professional Development Program on Teachers competencies at higher education level.

HYPOTHESES:

Following were the null hypotheses to conduct the study:

- H₀₁ There is no significant difference between the overall competencies of trained teachers and teachers having no training.
- H₀₂ There is no significant difference between pedagogical competencies of trained teachers and teachers having no training.
- H₀₃ There is no significant difference between management and assessment competencies of trained teachers and teachers having no training.
- H₀₄ There is no significant difference between research competencies of trained teachers and teachers having no training.

METHOD:

SITE AND PARTICIPANTS:

At higher education level, teachers trained by FPDP and teachers having no training of FPDP were participants of the study. The multistage sampling technique was used to conduct the study. These stages were as follow

- Trained teachers were selected by census-sampling technique. Lists of participants of 10 batches of FPDP were obtained from HEC, Islamabad.
- Teachers having no training of FPDP were selected by Purposive sampling technique.
- For making comparisons, Random sampling technique was used to select same numbers of faculty members of same discipline and of same university.

Sample consists of about 596 faculty members of both categories trained and having no training.

INSTRUMENTATION:

Keeping in mind the general and specific objectives of FPDP a Teacher Competencies Measurement Scale (TCMS) was developed. This instrument was consisted of 26 items. To measure the impact of this program on teacher competencies, three categories of competencies: pedagogical, assessment & management, and research competencies were made. Twenty-six items was distributed among these three categories.

1. Sixteen items were included in Pedagogical Competencies (including use of ICT & Computer)
2. Five items were included in Management and Assessment Competencies and
3. Five items were included in Research Competencies

VALIDITY OF THE INSTRUMENT:

The experts in the field of test and measurement verified face validity and content validity of the instrument.

PILOT TESTING OF INSTRUMENT:

The instrument was administered to 40 teachers at University of the Punjab, twenty university teachers trained by FPDP and 20 teachers having no training had taken for pilot testing. Respondents easily understood all items and none of the items was found to be ambiguous. Internal consistency coefficient using Cronbach Alpha was computed for reliability, its value was found 0.94.

DATA COLLECTION:

Teachers Competencies Measurement Scale (TCMS) was distributed among 596 faculty members by mail. At certain places, like HEC Islamabad, researcher went herself to collect data. Response rate was about 59% because majority of faculty members were on the leave, transferred to another campus, or have gone to abroad. Three hundred and fifty responses from both cohorts were collected.

DATA ANALYSIS:

Data was analyzed by SPSS version 16.0. Independent sample t test was applied to test the 20-research hypothesis. After applying "Levene's Test for Equality of Variances" t- test was used to measure competencies of trained teachers and teacher having no training. By using means and standard deviations of both groups Cohen's d was calculated. The 0.05 rejection level was used for all tests of the hypothesis. After verifying the assumption of homogeneity of variances, the appropriate approach was used to report the significance through t-test

RESULTS:

Following are the results of descriptive analysis

- Descriptive analysis indicate a significant difference between total competencies score of trained teachers ($M= 103.07$, $SD= 16.19$) and teachers having no training ($M=95.50$, $SD=14.25$), t (317) 4.421. So, the null hypothesis that, "There is no significant difference between overall competencies of trained teachers and teachers having no training" is rejected. It is inferred that trained teachers are more competent than teachers having no training are.
- It is concluded that there is a significant difference in pedagogical competencies of trained teachers and teachers having no training as analysis (table2) reveals a significant difference between pedagogical competencies of trained teachers ($M= 62.32$, $SD= 10.839$) and teachers having no training ($M=58.15$, $SD=9.617$), t (342) =3.760. Hence, the null hypothesis that there is no significant difference between pedagogical competencies of trained teachers and teachers having no training is rejected.
- It is inferred that there is a significant difference in management & assessment competencies of trained teachers and teachers having no training. Table3 related to management and assessment competencies, reveals a significant difference between trained teachers ($M= 18.85$, $SD= 3.178$) and teachers having no training ($M=17.44$, $SD=3.472$), t (336) =3.825. This result rejects the null hypothesis that, "There is no significant difference between management and assessment competencies of trained teachers and teachers having no training".
- Table 4 reveals a significant difference between trained teachers ($M= 21.29$, $SD= 4.403$) and teachers having no training ($M=19.68$, $SD=3.892$), t (321) =3.477 with respect to research competencies . Hence, the null

hypothesis that, “There is no significant difference between research competencies of trained teachers and teachers having no training” is rejected.

DISCUSSION:

Faculty professional development program (FPDP) has brought a significant positive change in teachers’ professional competencies. Trained teachers are more competent than teachers having no training in all the three categories and in overall competencies scores too. These results are in line with the conclusions of studies already conducted by Prebble, Margraves, Leach, Naidoo, Suddaby, & Zepke, (2004); Southwell & Morgan,(2010).According to them short training courses have little impact on teachers performance while rigorous and inclusive programs have great effect on teachers beliefs and behavior and may lead to a more learner-focused approach in teaching. Similarly it was evident in the study by Spafford, Jacob, and Goody (2002) that professional development programs either long term or short term effects teachers pedagogies and overall classroom behavior and performance. Shaikh, Goopang and Junejo (2008) concluded after conducting a research that for professional development as well as for teaching performance teacher training was beneficial. Hussain, Sarwar ,Khan and Khan2(2010)also supported that professional development improved teachers performance in real classroom situations. The results of ten studies enlisted by Darling-Hammond (1999) indicate that pedagogical training generally has a stronger effect than subject matter mastery. Researcher agrees that professional development serves to develop teachers’ knowledge, attitudes, skills, aspirations, and behaviors so that they may, in turn, use them to improve instruction in the hope of improving student learning (Guskey, 2000). Norton, Richardson, Hartley, Newstead, and Mayes, (2005) found a little evidence to show that training would have an effect on teaching behavior. They reported that there was no significant differences between the two groups on scales measuring teaching beliefs and intentions. Gibbs and Coffey (2004) studied the effectiveness of university teachers’ training.They concluded that Training can increase the extent to which teachers adopt a Student Focus and it can change teachers in a way that their students improve their learning. Walter, Wilkinson and Yarrow (1996) opined the quality of professional development affects the quality of teachers to some extent, which in turn, affects the quality of their teaching. . Borko & Putnam (1995) reported similar results that professional development plays an important role in changing teachers’ teaching methods, and that these changes have a positive impact on students’ learning. Research results show powerful evidence that “experienced teachers’ pedagogical content knowledge and pedagogical content beliefs can be affected by professional development programs and that such changes are associated with changes in their classroom instruction and student achievement” (Borko & Putnam, 1995, p. 55).

IMPLICATIONS:

Regardless of country’s political, economic, and social problems, HEC is to train the university teachers having the professional knowledge, skills, attitudes and values required by the contemporary world. It is still a common fact in Pakistan that new technologies are not used and modern pedagogies are not applied at a desirable level in higher education which in turn effects the quality education. Kakkar (1996) said that Teachers cannot do justice to their job without their continuous professional development and updating their knowledge of content as well as the pedagogies. Government of Pakistan (2002) also admitted to improve the quality of teacher education and training at higher level has found one of the major thrust areas in the education sector reforms.in the light of these findings the quality of university teaching drew further attention, resulting in significant growth in the number of professional development programs across the country by HEC. Respect to teachers performance their required and desired competencies appeared to be addressed. In this context, the study has implications for policy-makers of education, Higher Education Commission, heads of higher education institutes, and teachers themselves. Policy-makers and HEC need to work out a comprehensive strategy for enhancing teachers’ professional competencies at higher education level. They need to implement a comprehensive policy based on teachers’ professional competencies. Heads of higher education institutes should diagnose the professional needs of their faculty, and teachers themselves should up to date their knowledge and competencies to cope with the standards. This study will contribute to related literature and can illustrate new dimensions for future researches in the specific area to address the call of time i.e. quality education.

CHALLENGES:

Professional development programs to reach the goal of quality education by improving teaching and learning have been a feature of educational environments of many higher education institutions throughout the world for

more than 50 years. The teaching environment in universities transformed in many revolutionized ways. More varied teaching methods based on Pedagogical understandings , technology which leads to unique prospects of access and improvement, changing trends of education in world and cultural diversity necessitates new understandings and skills of academic staff. To cope with the demands of 21st century, these factors and trends are bringing strong forces to adopt ICTs in education. Contemporary drifts suggest we will soon see large scale changes in the way education is planned and delivered due to the opportunities and affordances of technology. We need more competent and motivated teachers for quality education to compete rest of the world. Challenges faced by the sector of higher education are: to address the issues related to competencies of teachers like how to enhance and upgrade their competencies? What is their current level of competence? What are their required and desired competencies in national context? Etc.

CONCLUSION:

It is concluded that trained teachers are more competent than teachers having no training. Training or professional development programs like FPD are required to enhance desired competencies and to polish required ones. In the light of findings of this study, it is recommended that the HEC should continue its professional development program to bring faculty at set standards because professional development of teachers provide applicable and determinative impact of teacher Professional skills, knowledge and abilities on the students' learning as well as on the realization of teachers' abilities in their professional commitment.

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Table 1: Total Competencies Score of Trained Teachers and Teachers having no Training

| Groups | N | Mean | SD | Df | t-value | p | D |
|-------------|-----|--------|-------|-----|---------|-------|--------|
| Trained | 134 | 103.07 | 16.19 | 317 | 4.421 | .000* | .496 † |
| Not trained | 185 | 95.50 | 14.25 | | | | |

*p < .05

† Cohen’s d is calculated by using means & standard deviations of two groups

Table 2: Pedagogical Competencies Score of Trained Teachers and Teachers Having no Training

| Groups | N | Mean | SD | df | t-value | p | D |
|-------------|-----|-------|--------|-----|---------|-------|--------|
| Trained | 145 | 62.32 | 10.839 | 342 | 3.760 | .000* | .407 † |
| Not trained | 199 | 58.15 | 9.617 | | | | |

* p < .05

† Cohen’s d is calculated by using means & standard deviations of two groups

Table 3: Management & Assessment Competencies Score of Trained Teachers and Teachers Having no Training

| Groups | N | Mean | SD | df | t-value | p | d |
|-------------|-----|-------|-------|-----|---------|-------|--------|
| Trained | 141 | 18.85 | 3.178 | 336 | 3.825 | .000* | .424 † |
| Not trained | 197 | 17.44 | 3.472 | | | | |

* p < .05

† Cohen’s d is calculated by using means & standard deviations of two groups.

Table 4: Research Competencies Score of Trained Teachers and Teachers having no Training

| Groups | N | Mean | SD | df | t-value | p | d |
|-------------|-----|-------|-------|-----|---------|------|--------|
| Trained | 135 | 21.29 | 4.403 | 321 | 3.477 | .001 | .388 † |
| Not trained | 188 | 19.68 | 3.892 | | | | |

*p < .05

† Cohen’s d is calculated by using means & standard deviations of two groups.
