

Analysis of Training Module “Research Skills” under HEC Faculty Development Program in Pakistan

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Abstract

The paper aimed to critically analyze the relevancy and effectiveness of the training contents and process of the module ‘Research Methods and Skills’ developed by Higher Education Commission of Pakistan and conducted by the Islamia University of Bahawalpur. To achieve the objectives eight research questions were established. Focus of the questions was to examine the concept of research, research ethics, steps of research process, and tools of data collection. Existing and expected role of participants towards research, their role as a research supervisor, and application of learning research skills as well as usage of various data analysis techniques by them was also aimed to explore in research questions. Sample comprised thirty participants who were selected to participate in the training from various faculties of colleges and universities. The data was collected through pre and post test of the participants. Same questions were asked before and after the training process. The data was analyzed through qualitative analysis using thematic approach. The findings disclosed the participants’ clear concept of research, research ethics, and sources of literature review. They were after completion of training, can use various data analysis techniques. The findings of post-module concepts of the participants reflect an apparent change in their knowledge towards adapting these characteristics as a supervisor. The paper recommended several empirical steps to overcome those problems faced during the session. Time management was required in the session and a need of special workshop on ‘research methodology and skills’ required.

Keywords: Higher Education Commission; Faculty Development Program; Research Skills

1. Introduction

Since educative process, the significance of the in-service training in the professional development, especially in education (Blackburn & Moisan, 1987) is accepted by all. At the backdoor of the classroom the important element of the success is to achieve the objectives of a lesson in shaping the students learning something after attaining professional expertise. This depends on the creative aptitude of teacher’s ability to combine practical knowledge according to its theory. Without practical knowledge only theory will not provide significant results in effective teaching. Nor will practice without the help of theory provide best results in the teaching learning process. For effective teaching, continuous training is essential whereas the teachers are hesitating now days to join these sessions. The education system lacks motivational factors that persuade teachers to attend in-service training activities (Beduk, 1997; Taymaz et al, 1997; Ozer, 2001). Significant in this practice is the teacher's familiarity of the subject matter, and his/her ability to execute new strategies, to expand effectiveness in performance and responsibilities, to

develop suitable assessment and evaluation tools and to deal with the different styles of student's achievements. So effective teaching involves the practical implementation of new research/theory through in service training of teachers to improve learning environment of classrooms.

The university teachers provided by personal conducted research, theoretical knowledge as well as practical experience, and content based knowledge are capable of delivering lectures in the well-organized way. In a laboratory, scientific methods, experiments, experiences, demonstrations, use of audio visual aids and contribution in research is involved. In general the association of research with theory and teaching practice is essential for effective learning of the students. Hence, as viewed by Ozer (2004) to make teachers interested in continuous professional development and to increase the effectiveness of theory and practice at in-service training, some motivating elements should be added to the system.

The role of research in higher education has now days given preference with the policies of higher education of government's on higher education discussing the role of research which should be played in a good university. Majority would accept that research is a critical element for a comprehensive academic culture in a higher education institution and universities. It contributes to knowledge base information and is good for the researcher's work satisfaction , career development and for his/her profile. Conducting of research enhance our ability to teach our students as well as it also help us to increase our knowledge in our subject .

All over the world changes are taking place very rapidly in the field of research not only at universities level but also at all the institutions under the jurisdiction of higher education. In the consequence our government now seems very serious in term of training the teachers of higher education level to meet the international standards of education. So we can hope our best future to meet updated standard in the quality of education at colleges and universities.

This research methods and skills module is written primarily for the teachers training of higher education department i.e. colleges as well as universities to teach the students of graduate and post graduate level. It is expected in this regard that at this level they maybe for the first time participating in a formal training and research work.

In this module first of all, introduction is given about the concept of research along with definitions and the reasons for conducting research, where it is conducted and how it is done and by whom, followed by the attributes of a quality research. Furthermore it is designed to put an overview of the kinds of research under the qualitative and quantitative paradigm.

This module deals with the research process to adhere to some ethics that the trainees of the training have to keep in their minds. They learn through research about giving the various citation and reference methods. After the procedure of data collection using SPSS data analysis is made and finally research tells us how to perform the role of a supervisor.

Higher Education Commission (HEC) Pakistan has enhanced and improved the process of teacher training for the teachers of college and universities. In result of these enhancements one of the evidence of this improvement is the commencement of professional capacity building of the teachers from the colleges and universities for twenty four days under the supervision of well qualified universities teachers. Research in one core module of their capacity building program, with an objective to expose university and college teachers to its importance in their practices.

The proposes of this module were:

- Value the teaching profession and its significance in 21st century
- Understand their expected contribution in educational institutions as well as in the society.

- Observe professional ethics and develop balanced personality
- Understand and practice their role as an intellectual beings of society
- Developing a positive attitude toward peace and harmony.
- Sensitize themselves about their role as an agent of social change
- Share researches and best practices with colleagues in conferences/workshops and develop academic network.

Objectives of the Study

The main objectives of the study were to:

1. Critically analyze the relevancy and effectiveness of the training contents and process of the module ‘Research Methods and Skills’
2. Assessing training needs of university and college teachers in terms of conceptualizing new meanings and importance of research processes.
3. Know their skills, role of teacher as a competent researcher as well as supervisor.
4. Give suggestions and recommendations for the improvement of further teacher training programs for universities and colleges.

Research Questions

The research purpose was the analysis of the process of training module ‘research skills’ of HEC faculty development program of higher education teachers organized at the Islamia University of Bahawalpur, Pakistan. It was essential to ponder the study on research objectives and give attention to search out the intellectual capacity of training participants of various faculties in this regard. To get the understanding of participants of training towards research skills, the study attempted to respond the following research questions.

1. What is the concept of research?
2. Please mention some research ethics?
3. What are the sources of literature review?
4. Write down the steps of research process?
5. Pen down the tools of data collection?
6. What is your role as a research supervisor?
7. What are the techniques you use for data analysis?
8. In your opinion, what are the applications of research skills in education process?

2. Methodology

Creswell (2003) and Bernard (2000) recommend qualitative method of inquiry to achieve the qualitative results from the investigation. The task was to investigate the achievement level about research methods and skills before and after the training program to extract subject’s achievements.

Sample

In this study, all the participants (i.e. thirty participants) of the training program were selected and considered as the sample of the study.

Data Collection

To extract the valid and accurate findings from the study, the data was gathered from all (thirty) participants of the training session. The participants were from the various university faculties and departments of colleges located in the area of southern Punjab.

Data was collected in two stages. In first stage, a pre test was conducted before the session to obtain the perception level about the module. In second stage, after the completion of three days session on module ‘research method and skills’ a post test was conducted to find out the achievement level about the module

contents which were taught to them by various instructors. In the whole process the researcher was also the part of training as observer. While tea breaks, an unstructured interview were also conducted to the subjects to get their points of view on each learning activity. Main points during the interview from the participants were noted.

Data Analysis

Data collected through pre and post test from the participants was in questionnaire form and unstructured interview was written in the form of transcripts. Data was analyzed using thematic approach as Jodi (1994) is in the view that from the conversations that takes place in a session or for researching a process, thoughts appears that can be better understood under the control of a thematic analysis.

The data were analysed according to the viewpoint of Rudolph (2006) who says that thematic analyses are often used in the same project, with the researcher moving backwards and forwards between transcripts, memos, notes and the research literature. He further added in this perspective that using this method, data from different people is compared and contrasted and the process continues until the researcher is satisfied that no new issues are arising. So, this provide chance to create association among various opinions and interpret the data accordingly. Conclusions were drawn and recommendations were provided to improve the module.

3. Findings

Concept of research

Before starting this module trainee teachers expressed their needs to learn about research were attaining the new knowledge according to the majority of the participants. Some participants were seeking to learn about how to conduct a research effectively. They shared their understanding that research should be scientific and it must focus on the solution of various problems which we observed during the learning activities. They expressed their ideas that we need research to make our teaching effective. They were in the idea that research is knowledge of new theories, increase knowledge about using various techniques, to know the implementation of ethics, it's a process of self improvement and through research we come to know to analyse the collected data. A small number of participants were unaware to explain the concept of research.

In the end of this module the perception level of the participants were changed. Now they were able to describe the definition of research that what research actually is? They now understand its clear concept and felt that research is a serious activity. Majority of participants have equal perception to describe its proper definition and more clear concepts. Few of them were in view that research is a systematic process of searching the truth. Some also learn new methods of research especially qualitative and quantitative research methods.

This seems the effect of introduced meaning of the concept of research during the workshop, which has changed the trainee's concept. During the session they were given various activities and asked to describe and then they were given the original concepts by the facilitator which mold their wrong ideas into correct one.

Research ethics

Before the start of the training, majority of the trainees has the opinion of unbiased and fair conduct of research. Some stated their views that participants of research feel safety in the process of research and during this process collected data should be confidential. They gave opinion that some research characteristics i.e. validity, objectivity, originality, authenticity and time management must be observed during research conducted. Some of them respond irrelevantly and they depict those ideas which were not related with the research ethics. It means some of them was unaware or had no idea about research ethics.

After attending this session, majority of the participants stressed upon the fair and unbiased research must be conducted by providing a proper guidance to the researcher. There was a significant change in their perception to develop a program for the students in account of research ethics with proper implementation. Now they became to know about plagiarism in research and research oriented behaviour of researchers. During the workshop the facilitator has introduced variety of activities and invited the participants for discussions to make them better understand research ethics and how it is important to practice in our research projects.

Sources of literature review

Before the initiation of the module, participants have a sound knowledge about the sources of literature review. Majority of them considered the internet, research report and research journals as a good source of review literature. Some of them were considered library, books and newspapers as significant sources. Some considered government documents, software, interviews, encyclopedias, dictionaries, and magazines as the effective sources of literature review.

During the learning process of the concept participants were asked to prepare a list of these resources. They worked in groups and peers and developed a long list of resources, which were very essential for the teachers to inspire their students towards their learning activities.

After completion of the module, participants seem confident towards their knowledge to describe various sources of review literature. The facilitator also explained all the sources of review and in the consequence participants were now able to discriminate the primary and secondary sources. Majority of the participants were now able to explain these two kinds of sources with some examples now they were able to extend their knowledge as they concluded some other sources i.e. publications, background of researches, published material, etc. Few of them was in a confuse state and they had their concepts not very much clear but to some extent. The main reason in this context was their uninteresting or non serious behaviour towards their learning activities.

Steps of research process

In response to their prior concepts of versatility and knowledge about different steps of research process, majority of the training participants were having the wrong concept. They were using irrelevant answers, wrong answers or skip the item which depicted their little knowledge in account of explaining the steps in an appropriate order. Some of them were able to explain the proper steps of research process whereas few of them were describing their concept to some extent.

During the learning process of the concept participants were introduced the complete steps of research process in detail. They were asked to explain their own concept of research process while giving an activity to write down the steps on a card. Then resource person described the steps in detail one by one. They worked in groups and developed a list of steps, which are very essential for the teachers to inspire their students towards their learning activities. When asked the same question at the end of the module, they came up reasonably with a changed and new understanding of the steps of research process. Now the majority of the participants sensitized with the idea that they can easily define steps with in a proper order.

The data shows that the participants have significantly change behaviour in their knowledge about research process. Almost all participants were now able to define these steps in proper order except one or two who were able to define them with a little knowledge. But in this session there were a little group who expressed their little perception towards this learning. They were seemed in perception to implement these steps properly in their fields.

Tools of data collection

In the beginning of this module, participants defined the data collection material with a very little concept about the tools. Majority of them were in conception that questionnaire, interview, books, libraries and past studies are the tools of data collection and material. They further described the tools with mixing them with the source of collecting material for research which shows their little knowledge towards the tools of data collection.

During the session, they were given some cards to write down the tools of data collection. They prepared a list after the discussion in groups and presented their prepared list. The resource person presented the detailed importance and use of some tools in data collection.

The findings of post-module concepts of the participants reflect an apparent change in their concept towards using of data collection. They now effectively described that questionnaire, interview and survey are appropriate tools of data collection according to the majority of the participants. It further depicts their understanding and realization of the importance of professional. Some of them expressed their views that observation, and online data and focused group discussion are also effective tools of data collection.

Role of research supervisor

Before starting this module, participants expressed the role of supervisor to give proper help according to appropriate methodology and they stressed in proper guidance to the researcher. They further described that a supervisor should cooperate with the researcher, give access to various resources, through knowledge sharing, help them in data analysis, time management and proper knowledge sharing.

During the session after giving some knowledge about the role of supervisor they were given an activity to enlist the major responsibilities of the supervisors and enough time was given to them for this purpose. They were free to discuss with each other. After sharing the ideas some group leaders made their presentation on it. Which was a healthy activity to make the participants aware to know their role as a supervisor. In discussion many participants viewed that they were unaware of many points of the responsibilities as a supervisor.

By the conclusion of the module a range of new meanings and improvements were apparently occurred in their concepts. Now they were of the impression that role of a supervisor is very important aspect for teachers to develop and practice a good research activity. They expressed that role of supervisor demands scientific approach, knowing various methods of research, positive attitude, patience, practical mind, cooperative, facilitation, problem solving, good communication skills, politeness, competency, and time management skills. Majority of them were stressing upon proper guidance and expert knowledge of supervisor to perform an effective role as a supervisor.

The findings of post-module concepts of the participants reflect an apparent change in their knowledge towards adapting these characteristics as a supervisor. It further depicts their understanding and realization of the importance of role as supervisor that they are carrying with them to their professional responsibilities and practices.

Techniques of data analysis

Before the inception of the module, participants had very stereotyped concepts of techniques of data analysis. They shared their understanding that SPSS is used to analyse the data but they were not in the state to analyse the data using SPSS. Some participants had the idea internal and external criticism, ANOVA, chi-square, classification, and graphics are used to analyse the data. Few participants shared that mean and central tendency are also used for data analysis. Where as some of them had no idea of using these techniques.

During the module, resource person taught various techniques of data analysis i.e. measurement of central tendency and especially SPSS. While teaching some participants were also practiced on variable sheet

and data sheet of SPSS while practicing various commands of data analysis. They were using various commands i.e. average, mean, mean deviation, standard deviation etc.

In the end of the module maximum of the participants had modified their understanding about the use of various data analyses techniques. Now majority of the participants argued SPSS and measurement of central tendency as an effective techniques of data analysis. This seems the effect of learning concept during the workshop, which has changed the trainee’s concept of using these techniques, now they were focusing upon the knowledge of using chi and t test and various different techniques while preparing a data sheet in SPSS software.

Application of learning research skills

A crucial question was asked at the end of the module that how would they apply their new learning in their professional practice? Apparently a range of very imperative ideas evolved in the responses. They all seemed very self-assured and excited to improve their lectures by incorporating creative group work and discussion during the lectures.

The data reveals that participants are very eager to use modern electronic technology during teaching in the classroom. They showed a huge interest and motivation to display a very friendly attitude and take care of social and moral values to their students inside and outside classroom activities. The data further depicts that they also are committed to involve themselves and their students while conducting these research activities. They were committed to implement all their learning achievements during the training workshop. Some depicts their commitment towards application. In this regard majority of them depicted that they will use SPSS while data analysis and they will also provide proper guidance for research to their students. They are promising by themselves that from now to onward their research activities will revolve around their learning achievements of workshop. They will try to modify the behaviors and attitudes during supervising research of their students. They will focus on research papers, use current trends and formulation of hypothesis, as according to them, prior to this workshop was not on the focus of their research in own fields.

4. Challenges and Recommendations

The trainees of the workshop discussed some challenges which were faced by them during the training sessions. They were in view that some of the aspects of training workshop are not related with the college teachers. They were complaining on their existing strong traditional infrastructure of the department/institution and workload, which is not according to them helpful and conducive to apply what they have learnt in the workshop. They were also in opinion of the lack age of time for this module especially they were given a very limited time to learn SPSS.

Ignorance of time management was an important factor observed during this module. Majority of the course participants did not bother about the importance of regularity and punctuality during the workshop in different sessions. Some participants used to come late in the beginning of the session and some are used to disappear after tea breaks were a major concern for the facilitator. Some of them were seeing in their non serious attitude towards learning and they were passing unnecessary comments during the teaching learning process which was creating disturbance for other participants as well as for the resource persons.

Participants were in view that learning SPSS is very essential in the field of research but a more content knowledge was given to them in a limited and short time. So they were complaining that we are not able to understand the clear concepts of this data analysis technique but they were convinced by the importance of SPSS.

It was also observed that trainees seek for handout of the next day but not managed. So the providence of schedule was a need of the training.

The findings depicts that participants got an understanding of the impact of new approaches to teaching and learning in their institutions. This study reveals that some positive and new changes have been imparted to the trainees of the workshop regarding research methodologies and skills. Bibliography styles must be introduced as the participants were eager to know today's style of referencing and bibliography used in various international universities. Practices on presenting the research papers in conferences were a sole need of the participants especially for the university teachers which can be included in next HEC training workshop.

HEC needs not to cover more content in their training sessions but of some selected and practice work should be the part of the training. Although some practical work was there i.e. teaching linguistics with correct intonation and punctuation yet their in a need for improvement.

While selecting contents of the training some expert from college side should be given opportunities to participate in this process. This will increase the effective training for the college teachers as well as for the university teachers. As the participants were complaining for short duration for some essential and important modules so there is a need for time management according to the length of content. As regard of research module there is a need of one month training only for research module especially to teach data analysis techniques.

References

- Beduk, A.E. (1997). Okullar da hizmeticiegitimplanlamasiyapabilmeliveuygulamalidir [schools should be able to plan and implemnet in-service training], *MilliEgitim*, 133, pp. 7-8.
- BekirOzer (2004). *In-service Training of Teachers in Turkey at the Beginning of the 2000s*. Journal of In-service Education, Volume 30, Number 1.89-100.
- Bernard, H. R. (2000). *Social research methods: Qualitative and quantitative approaches*. Thousand Oaks: Sage Publications.
- Blackburn, V., &Moisan, C. (1987).*The In-service Training of Teachers in the Twelve Member States of the European Community*. Maastricht: Presses inter universitaireseuropéennes.
- Creswell, J. W. (2003). *Research design: Qualitative, quantitative, and mix method approaches* (2nd ed.). Thousand Oaks: Sage Publications.
- Jodi (1994).*A Pragmatic View of Thematic Analysis*. The Qualitative Report, Volume 2, Number 1, 1994
- Ozer, B. (2001).Ortaöretimogretmenlerininmeslekigelisimeyaklasimi [Secondary school teachers' approach to professional development], *Yayimlanmamisarastirmaraporu*, Eskisehir.
- Rudolph T. (2006). *Qualitative Data Analysis*. Retrieved February 23, 2011 from <http://e-articles.info/e/a/title/QUALITATIVE-DATA-ANALYSIS/>
- Taymaz, A.H., Sunay, Y. &Aytac, T. (1997) Hizmeticiegitimdekoordinasyonsaglanmasitoplantisi [Co-ordination meeting for in-service training], *MilliEgitim*, 133, pp. 12-16.

