

## **Factors Influencing Research Culture in Public Universities of Punjab: Faculty Members' Perspective**

Muhammad Iqbal<sup>\*</sup>, Samreen Jalal<sup>\*\*</sup> and Muhammad Khalid Mahmood<sup>\*\*\*</sup>

---

### **Abstract**

The purpose of this survey study was to know faculty members' viewpoint about factors of research culture prevalent in the public sector universities of the Punjab. Survey solicited university faculty members' opinions on a five point Likert type scale yielding quantitative data. Population of the study was comprised of all the faculty members of 18 general public sector universities. Sample was selected through multistage random sampling technique. At the first stage seven universities were selected randomly out of total 18 public sector universities. All the faculty members in the departments of Education in the sampled universities were included in the study. One hundred and sixty faculty members willingly filled out the survey questionnaire. Survey questionnaire enlisted environmental, institutional and personal factors contributing to research culture. Data were analyzed by computing mean values and standard deviation of responses on each statement. Significance of difference between male and female faculty members' opinions was tested through t-test for independent samples. None of the environmental, institutional and personal factors was found to be favorable for research culture in public sector universities of the Punjab. The results of the study indicated that institutional factors and personal factors were perceived as relatively more influential for promotion of research culture as compared to environmental factors.

**Keywords:** Research culture, Public Sector Universities, Environmental, Institutional and Personal factors.

---

<sup>\*</sup> Assistant Professor, University of Education, Division of Education, Lahore. Email: drmiqbal@ue.edu.pk

<sup>\*\*</sup> Lecturer Education, University of Education, Bank Road Campus, Lahore.

Email: samreen.jalal2010@yahoo.com

<sup>\*\*\*</sup> Assistant Professor, University of Education, Division of Education, Lahore

Email: khalid.peas@gmail.com

## Introduction

A rich research culture prevails in the universities of developed countries. Teaching staff of the universities of developed countries give much worth to the research, considering it as an important aspect of their profession. They remain engaged in research activities to enhance their profession and to contribute towards creation of knowledge. They continuously keep on attempts to add into the existing body of knowledge. Whereas faculty members in universities of the developing countries are engaged more in teaching activities rather research activities. Therefore, need to establish research culture in Universities is highly emphasized and it is the duty of teaching staff of universities not only to teach but also to establish research culture (Sanyal & Varghese, 2006). Research culture is reflected through faculty members' beliefs about research and prevailing research norms in the universities. Research beliefs and norms provide support to conduct research and determine which type of research output teachers produce and what is the reason to do it (Hill, 1999).

Schein (1985) defines research culture (as cited in Hill, 1999) as

Research culture can be ascribed as values and ideas that researchers use to handle research related problems. It is the combination of all the activities, all the thinking, all the collaboration and cooperation carried out to promote the research in faculty members. (p.2).

This definition summarizes that research culture is consisted of the beliefs about research in the universities and these are shown in the behaviors of faculty members (Bengo, Herrera, San Diego, & Santos, 2012).

Rouinville (1996) as cited in Mirza, Qazi and Rawat, (2012) considered research as a basic goal of Higher Education faculty members to perform composite roles in universities that is teaching and research.

As more focus is given on research in the universities of technologically advanced countries, Pakistani universities also demand from the teaching staff to play an active role in conducting research activities. High research output is seen by developing strong research culture that is also the major priority of Higher Education and university management. That's why, there is a constant pressure on the education departments of universities to increase research output (Mirza, Qazi, & Rawat, 2012).

A major indicator of weak research culture in universities is that they have low number of research articles, and research journals. But now-a-days, Pakistani universities are putting a strong effort to improve research culture in universities by developing research culture in their teachers for getting high ranking in world universities. To achieve best result, HEC has formulated the policy for public sector universities that selection of faculty on higher positions will be based on publication of research papers. Annual performance report of faculty members must be based on quality of research work. HEC grants funds to those persons who present papers in international conferences and also to universities that publish their own research journals (Akbar & Naqvi, 2008).

Higher Education Commission is providing research funding for research projects and publications in renowned research journals. Higher Education Commission provides teachers with training courses on research and research incentives to those who attend these courses. These efforts are made for developing research culture in universities.

Hazelkorn (2004) describes that research is a basic element of Higher Education Institutions. The amount of research activities that are produced reflected its quality and status. These institutions face many problems to develop the research culture i.e. Low level institutional set-up, no resources for research activities, stress of teaching workload, and faculty don't have required research skills.

According to Memon (2007) research develops curiosity and provides relevant solution of concerned problems. One problem is that only specific group of people are involved in research related activities. Other problems are lack of research funding and facilities that become the hindrance in the development of research culture. These problems are trying to be solved by the provision of research funds to public sector universities in Pakistan but results are not up to the mark. These problems refer to environmental, institutional and personal factors.

Environmental factors facilitate the faculty members to implement their individual characteristics in aspect of increasing their research output. Environmental factors include collaborative situation, mentoring, encouraging group environment, communication between faculty members and head of department, provision of resources and facilities for professional development of faculty members (Bland, Center, Finstad, Risbey, & Staples, 2006).

Institutional factors include university policies, mission and goals (Meigounpoory & Ahmadi, 2012). It includes arrangement of research oriented workshops in aspect of publishing and increasing the number of research articles, sending emails and letters to the teachers for providing information about research output enhancing opportunities, and also focusing on teaching and research activities (D' Andrea & Gosling, 2000). Lack of time for research activities is a major hindrance for research activities. Strategies for time allocation are needed for teaching and research activities (Salazar-Clemena & Almonte-Acosta, 2007). Faculty members do research for the sake of promotion and recognition. Time and departmental duties affect their research and time is allocated for both research and teaching activities (Hardre, Beesley, Miller, & Pace, 2011). Libraries of Higher Education Institutions are not enriched with new books and majority of books are not fulfilled the present requirements. Computers are also not modern with latest software (Bunoti, 2011).

Personal factors include research knowledge, research experience and encouragement for research activities (Meigounpoory & Ahmadi, 2012). Some faculty members do not conduct research activities due to lack of research skills. Research skills enhancement programs are needed to arrange not only for senior faculty members but also for junior faculty members (Salazar-Clemena & Almonte-Acosta, 2007).

The present study aims to identify those factors that are influencing the research culture in Public sector universities of Punjab and these factors are environmental factors, institutional factors and personal factors. The results of the study may aim to highlight the present situation of research culture in universities, and the most prevailing factors that influence the research culture (Deem, Lucas, 2007; Gear & Edgar, 2011).

Present study attempted to explore factors influencing research culture in departments of education of public sector universities. Opinions of education faculty in selected universities were solicited to know the potential factors influencing research culture.

### **Research Objectives**

Specific objectives of the study were to:

1. find out the factors influencing research culture as perceived by the education faculty members in Public Sector Universities of Punjab.
2. compare male and female university faculty members' perceptions about factors influencing research culture.

## **Research Methodology**

Population of this study was comprised of all the education faculty members in public sector universities of the Punjab. There were 18 public universities in Punjab having departments of Education. Seven universities were selected randomly for the purpose of data collection. Sampled universities were located in Lahore, Sargodha, Gujrat, Faisalabad and Bahawalpur. There were total 160 faculty members working in departments of education of seven sampled universities. A survey was conducted to solicit faculty members' opinion on potential factors influencing research culture in Universities.

Instrument used for data collection was a survey questionnaire developed by the researchers. This survey questionnaire was comprised of 55 statements stating environmental, institutional and personal factors possibly influencing research culture in universities. Section soliciting opinions on environmental factors was comprised of 13 statements stating possible environmental factors influencing research culture, similarly there were 18 statements of institutional factors and 24 statements stating personal factors. Responses were invited on five point Likert type scale ranging from strongly agree to strongly disagree. Instrument was validated through expert opinion, pilot tested for reliability analyses.

Survey was administered personally to available and willing faculty members. Researchers were successful in getting survey questionnaires filled from 155 out of total 160 faculty members. Survey questionnaire yielded data on five point Likert type scale. Mean response values were computed for each statement to know the perceived influence of factor stated in the statement. Overall mean response values were also computed for environmental, institutional and personal factors influencing the development of research culture. Significance of difference in male and female faculty members' opinion wastested by employing t-test for independent samples.

## **Data Analysis**

Proceeding section presents summaries of data analysis in tabular form. Each table is followed by interpretation of results of analysis. Mean response value for each statement indicate extent of respondents' agreement with the statement.

## **Environmental Factors**

There were 13 statements to solicit faculty members' opinions on environmental factors of research culture. Proceeding table presents statements and respective mean response values.

**Table 1***Mean Response Values on Environmental Factors of Research Culture*

Sr. No.	Statements	Mean
1	I have the facility to exchange information with my colleagues through informal meeting.	3.48
2	Opportunities to become involved in research activities are provided in our department.	3.32
3	Sharing of ideas with other colleagues to succeed the research projects is provided in our department.	3.32
4	Department is very supportive to provide opportunities in research. (Articles, Projects)	3.16
5	Research issues are communicated by Dean/ Director/Head of Department.	3.14
6	Faculty members exchange information with colleagues through formal meetings.	3.14
7	Continues guidance is provided for research skills.	3.09
8	Seminars are arranged in department to enhance research skills of faculty..	3.06
9	Faculty members exchange information with colleagues through email.	2.94
10	Facilities to collaborate and access local and international researchers are available in the department.	2.93
11	Faculty members exchange information with colleagues through: - Cellphone.	2.88
12	- Letters,	2.76
13	- Intercom.	2.44
	Overall mean of Environmental Factors	3.05

Mean response values on statements of environmental factors indicated that faculty members were not agreed with these statements. Mean response values (MRVs) ranged from 2.62 to 3.48 on a scale of one to five. Table shows that 'facility to exchange information with the colleagues through informal meeting' was perceived as relatively most prevalent environmental factors of research culture in universities. Even this relatively most prevalent environmental factor was less common in practice (MRV =3.48). There was also a weak agreement with availability of opportunities for development of research culture (MRV=3.32), support for research opportunities (MRV=3.16). Faculty members were almost un-decisive with respect to efforts made by Deans/HODs to communicate research issues/projects with faculty (MRV= 3.14), exchange of research information through formal meetings (MRV=3.14), provision of continuous research guidance (MRV=3.09) and seminars for research capacity building (MRV=3.06). Mean response value less than three indicated disagreement of faculty with environmental factors like, exchange of information among faculty members through different modes like email, intercom and cell phone. There was no collegial and collaborative environment to discuss research issues and contact national and international researchers. Aggregate mean response value for all the environmental factors was found to be 3.05. Which indicate overall state of environmental factors was not supportive for research culture.

### Institutional Factors

Proceeding table presents Institutional factors with descending order of mean response values. This arrangement enlists most prevalent factors at the top and less prevalent at the bottom.

**Table 2**

*Mean Response Values on Institutional Factors of Research Culture*

Sr. No.	Statements	Mean
1	Institution demands to be productive in research.	3.81
2	Library resources are provided adequately.	3.81
3	Teaching and Research activities have equal importance.	3.56
4	Potential rewards such as promotion are awarded by universities for completing the research activities.	3.42
5	Research policies are communicated by Dean / Director / Head of Department / University authorities.	3.39
6	Computing resources and facilities are provided.	3.36
7	Potential reward such as recognition is awarded by universities for completing the research activities.	3.30
8	Research activities are rewarded in accordance with defined benchmarks of achievement.	3.23
9	Potential reward such as money is awarded by universities for completing the research activities.	3.19
10	Measures are taken for improvement of research skills.	3.15
11	Institution arranges the seminars with reputable competent researchers.	3.12
12	University provides administrative support for presentation of research papers in academic conferences.	3.10
13	Successful research projects are presented to get new knowledge.	3.06
14	Financial support is provided by university for research activities.	2.76
15	Adequate time is provided for research activities. (Articles, Projects etc.)	2.74
16	A large portion of faculty is awarded by scholarships.	2.65
17	Funds are allocated for training of research skills.	2.64
18	Teaching workload is adjusted with research work.	2.62
	Overall mean of Institutional Factors	3.16

Above table shows mean values of faculty members' responses that indicating extant of influence of institutional factors on research culture. Table shows that 'Institution demands to be productive in research' was relatively sometimes prevalent institutional factors of research culture in universities. Even this relatively the most prevalent factor was less common in practice as per given criteria of interpreting mean response values.

Table also shows that ‘Teaching workload is adjusted with research work’ was relatively rarely prevalent institutional factors of research culture in universities. It was least common in practice as per mean response values.

Overall mean response value (M=3.16) for statements stating institutional factors indicated that none of the stated institutional factors were common in the universities. All factors were less common in practice.

Visual presentation of mean response values on 18 statements of Institutional Factors of research culture is shown in following figure:

### Personal Factors

There were four statements in the instrument stating personal career factors with respect to faculty members’ position and status and 20 statements stating personal competencies and expertise. Table 3 and 4 present mean response values of personal factors in descending order.

**Table 3**

*Mean Response Values on Personal Career Factors of Research Culture*

Sr. No.	Statements	Mean
1	Senior Faculty members produce more research output due to control over their workload assignment.	3.94
2	Faculty members who are able to get more research grants produce more research output.	3.84
3	Faculty members with better facilities of professional growth do more research	3.26
4	I have been rewarded for any of my research studies.	2.79
	Overall mean of Personal Career Factors	3.46

Senior faculty members and those who are able to get research funding are doing better in conducting research. Only facilities do not give better results

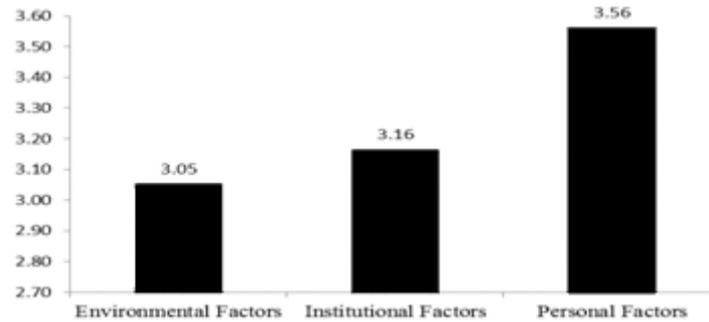
### Personal Research Competencies

**Table 4**  
*Mean Response Values on Personal Research Expertise of Research Culture*

Sr. No.	Statements	Mean
	I am competent enough in conducting	
1	Survey studies.	4.05
2	Identifying research problem.	4.03
3	Writing research questions.	3.92
4	Collecting the data.	3.91
5	Developing a design to complete the research.	3.88
6	Reviewing the related literature.	3.86
7	Selecting research processes.	3.80
8	Developing instruments for research.	3.75
9	Using APA manual appropriately.	3.74
10	Interpreting the data.	3.59
11	Identifying the Research Data Bases and Research Journals for publishing research articles.	3.54
12	Mixed research designs.	3.47
13	Experimental studies.	3.47
14	Action research.	3.41
15	Analyzing Quantitative data by using SPSS software.	3.38
16	Correlation studies.	3.37
17	Case studies.	3.27
18	Empirical studies.	3.25
19	Analyzing Qualitative data.	3.12
20	Ethnographic studies.	2.80
	Overall Mean of Personal Research Expertise Factors	3.58

Above table shows mean response values for personal factors i.e. research competencies of faculty members that are considered to be a major contributing factor of research culture in universities. Mean response values show that teacher educators consider themselves competent in conducting survey studies. Other competencies are not at optimal level including data analysis and interpretation of results. They are also less competent in conducting mixed method, experimental and action research. Faculty members are not good in quantitative data analysis using SPSS. Teacher educators do not consider themselves competent for conducting ethnographic studies.

Overall mean response value (M=3.58) for statements stating personal research expertise indicated that personal factor can be considered as less influential in promoting research culture in departments of education of public sector universities in the Punjab.

*Comparison among Factors influencing Research Culture in Universities*

Lengths of bar in the chart show aggregate mean perception of the faculty members about prevalence of these factors. It can be noted that personal factors are perceived as at a better level as compared to institutional and environmental factors. Environmental factors are not perceived as favorable (MRV- 3.05) for research culture, whereas institutional factors are also perceived as meager (MRV=3.16). Personal factors also not at optimal level but are relatively better (MRV=3.56) as compared to environmental and institutional factors.

**Table 5***Comparison of Male & Female Faculty Members' Opinions on factors Influencing Research*

Factors	Group	N	Mean	SD	Df	t-value	P
Environmental	Male	69	3.16	0.77	153	1.65	.10
	Female	86	2.97	0.68			
Institutional	Male	69	3.27	0.59	153	2.01	.05
	Female		3.08	0.56			
Personal	Male	69	3.82	0.48	151	5.22	.00
	Female	86	3.35	0.65			

Summary of t-test in the table show that t-value was not significant at 0.05 level of significance for environmental and institutional factors contributing in research. Hence there was no significant difference in perceptions of male and female faculty members about environmental and institutional factors for research culture. It was found that t-value for mean scores of male and female faculty members on personal factor was significant at 0.05 level of significance. Personal factor comprises statements of personal competencies for conducting research. Hence male and female faculty members' perception for their research competence was significantly different. Male faculty members' perception for their own competencies for conducting research was better than that of female faculty members' perception for their research competencies. It is also a common observation that male faculty members seem to be more competent in conducting research

## Major Findings

Summary of major findings on the basis of analysis of responses of university faculty members can be listed as below.

1. Environmental factors for research culture were not appropriate enough as perceived by the faculty members in departments of education in public sector universities of the Punjab.
2. Most of the institutional factors that can contribute in promoting research culture were not much favorable as perceived by faculty members.
3. Senior faculty members have relatively better opportunities for conducting research as compared to junior faculty.
4. Personal factors were reported to be at better level as compared to environmental and institutional factors for research culture.
5. Competencies of faculty members for conducting research were found to be skimpy as reported by themselves.
6. Male and female faculty members had similar opinions about environmental and institutional factors of research prevailing in their departments.
7. Male and female teachers' responses on research competencies revealed that male faculty members were more competent for conducting research as compared to female faculty members.

## Discussion

The research was conducted to identify the factors that play an important role in the development of research culture in Public sector Universities of Punjab.

In a study conducted by Mirza, Qazi and Rawat (2012) about the prevalence of research culture in universities found that faculty members were lacking research skills, they conducted research activities only for research publications necessary for eligibility of higher positions. High teaching workload was assigned by the institution, which was a major hindrance in doing research. It was an indication of lack of institutional support for research and research culture. There was no provision of appropriate financial resources for research. The findings of present also report lack of institutional support and non-prevalence of research culture in teacher education institutions of Universities

Lertputtarak (2008) studied the perception of faculty members towards research productivity in Chulalongkorn University of Thailand. He found that many of the faculty members had less research experience, skill, knowledge and funding. The findings of present study are consistent with the findings of previous research in aspect of personal factors are weak and influence the research culture.

Lamb, Lodhi, and Meier-Kriesche (2011) conducted research on researching the research culture in Pakistani public sector universities of Punjab. He found that major hindrances of research culture were insufficient time, personal research knowledge. The findings of this study are consistent with present research with respect to institution demands to be productive in research but teaching workload is not adjusted with research work.

### **Conclusion**

Present research revealed that environmental and institutional factors were not prevalent at appropriate level in public sector universities. Personal factors of research culture were relatively more prevalent as perceived by university faculty members. Faculty members were of the opinion that they were competent to conduct research but they were unable to find environment conducive for research. Institutional support for conducting research was also non prevalent.

### **Recommendations**

The recommendations of the study were:

1. Environmental factors influencing research culture need to be strengthened to promote research culture in Universities.
2. Collaborative research culture is needed in departments of universities to facilitate the faculty members discuss different research problems and get in depth knowledge about any type of research.
3. Universities should extend institutional support for research by allocating funds to university teachers to conduct research and arrange seminars and workshops to build their capacity in research skills.
4. This study should be conducted in Private sector Universities as well as Public sector universities and be extended to other departments of the Universities

### **References**

- Akbari, S. A., H., & Naqvi, S. N. H. (2008, November-December). The demand for higher education: Old and new challenges. *HEC News and Views. Research Trend shows Remarkable Increase.* 1-32.
- Bengo, M. D.V., Herrera, R. R., San Diego, C. P., & Santos, R. S. (2012). A qualitative thematic analysis of faculty engagement and non-engagement in research. *Journal of Educational and Social Research*, 2(3), 35-42. doi: 10. 5901/ jesr.2012.v2n3p35

- Bland, C. J., Center, B. A., Finstad, D. A., Risbey, K. R., & Staples, J. (2006). The impact of appointment type on the productivity and commitment of full-time faculty in research and doctoral institutions. *Journal of Higher Education*, 77(1), 89-123. doi: 10.1353/jhe.2006.0002.
- Bunoti, S. (2011). *The quality of higher education in developing countries: Needs professional support*. Retrieved from <http://www.intconfhighered.org/FINAL%20Sarah%20Bunoti.pdf>
- D' Andrea, V., & Gosling, D. (2000, November). *Promoting research in teaching and learning in higher education: Two case studies of multi-disciplinary pedagogic research*. Paper presented at first Teaching and Learning Research Program (TLRP) Conference, London, retrieved from <http://www.leeds.ac.uk/educol/documents/00003207.htm>
- Deem, R., & Lucas, L. (2007). Research and teaching culture in two contrasting UK policy contexts: Academic life in education departments in five English and Scottish Universities. *Higher Education*, 54(1), 115-133. doi:10.1007/s10734-006-9010-z
- Gear, A., & Edgar, F. (2011). Factors influencing university research performance. *Studies in higher education*, 2, 1-19. doi: 10.1080/03075079.2011.601811. Retrieved from <http://dx.doi.org/10.1080/03075079.2011.601811>.
- Hardre, P. L., Beesley, A. D., Miller, R. L., & Pace, T. M. (2011). Faculty motivation to do research: Across disciplines in research extensive universities. *Journal of Professoriate*, ISSN: 1556-7699.
- Hazelkorn, E. (2004). *Growing research in new universities: Managing the university community-building a research strategy and funding it*. Paper presented at EUA Conference. 1-19.
- Hill, R. (1999, July). *Revisiting the term 'research culture'*. Paper presented at the HERDSA (Higher Education Research and Development Society of Australasia) Annual International Conference, Melbourne.
- Lamb, K. E., Lodhi, S., & Meier-Kriesche, H. U. (2011). Long-term renal allograft survival in the United States: A critical reappraisal. *American journal of transplantation*, 11(3), 450-462.
- Lertputtarak, S. (2008). *An investigation of factors related to research productivity in a public university in Thailand: A case study* (Doctoral dissertation, Victoria University).

- Meigounpoory, M, R., & Ahmadi, B. (2012). Identification of the factors that effect in choosing the university research commercialization strategies. *IJRRAS*, 21(1), 140-147. Retrieved from [www.arpapress.com/Volumes/Voll2Issue1/IJRRAS\\_12\\_1\\_18.pdf](http://www.arpapress.com/Volumes/Voll2Issue1/IJRRAS_12_1_18.pdf)
- Memon, A. M. (2007). An event-flow model of GUI-based applications for testing. *Software Testing, Verification and Reliability*, 17(3), 137-157.
- Mirza, N., Qazi, W., & Rawat, K. J. (2012). Research culture in teacher education: A study of perception of university teacher educators in Pakistan. *European Journal of Social Sciences*, 28(4), 559-68. ISSN 1450-2267
- Rouinville, M. (1996). Teaching and research at university: A difficulty pairing. *Higher Education Management*, 8,135-144.
- Salazar-Clemina, R. M., & Almonte-Acosta, S. A. (2007). *Developing research culture in Philippine higher education institutions: Perspectives of university faculty*. Paper presented at the Competition, Cooperation, and Change in the Academic Profession: Shaping Higher Education's Contribution to Knowledge and Research.
- Sanyal, B. C., & Varghese, N. V. (2006). *Research capacity in higher education sector in developing countries*. UNESCO: Paris.