



A comparative study of study of Job satisfaction of Science teachers

Farkhunda Rasheed Choudhary¹, Waqar Ahmed²

¹ Assistant Professor, EPPSL Department, Allama Iqbal Open University, Islamabad

² M.Phil Scholar, Science Education Department, Allama Iqbal Open University, Islamabad

*Corresponding Author Email: Farkhunda.rasheed@aiou.edu.pk) waqarahmedfgei11@gmail.com

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Abstract

The role of a science teacher is significant in the teaching process. A committed and job satisfied teacher is helpful in the academic achievement of science students. One important factor that has a major impact on the performance of teachers and the quality of instruction is their level of job satisfaction. Throughout the professional career, teachers face many challenges. This study aimed to find science teacher's job satisfaction at FGEI Cantt. / Garrison institutes. In this study several factor that can impact on teacher's job satisfaction have been explored. The job satisfaction of science teachers was found using an adapted questionnaire. The sample comprised of male and female science teachers of FG Cantt/Garrison schools from Rawalpindi Cantt. In this study, a comparison of science teacher's job satisfaction was made based on gender. It was found that there was a slightly mean difference between the job satisfactions of science teachers i.e. class 9th male teachers were more satisfied as compared to class 9th female teachers and class 10th female teachers were more satisfied as compared to class 10th male teachers. Corrective measures are necessary to increase the job satisfaction of science teachers. The findings have significant implications for all stakeholders in educational set up. Authorities should consider the findings of researchers, so that the science teacher may feel more satisfied with their jobs .It will in turn reflect in the results of students..

Introduction

Education is observed as a mandatory for any nation's social, economic, and intellectual development. Teachers may make a significant contribution to the accomplishment by fostering the value of the educational process, therefore it is critical at all levels for educational authorities to improve the quality and efficacy of teacher performance. Schools require motivated, energetic, and committed instructors who are confident in their profession and capable of performing their tasks to the highest standard in order to successfully implement educational policies and meet targets. It is a challenge for the educational institutions to have high quality teachers. The significance of job satisfaction cannot be denied for the long term growth of educational institutions. In fact, job satisfaction is related to the ability to meet teachers' requirements and improve their job proficiency.

In the teaching process, the role of a science teacher is significant. A dedicated and job satisfied teacher is helpful in the academic achievement of science students. The job satisfaction of teachers is defined in this study as the general and specific subjective feelings and attitudes of secondary school teachers in the Pakistani educational setting, as they relate to the needs and requirements they expect their employment to meet. It gives teachers a chance to express their views and feelings about job satisfaction. The purpose of this study is to explore the job satisfaction of science teachers in FGEI (C/G) institutes and moreover to enquire the difference between the job satisfaction of male and female science teachers.

The study is having its significance as it provides the awareness about the science teacher's job satisfaction. This study is helpful for the institutional administrators to develop strategies and techniques to create the environment of science teachers' job satisfaction and produce the professional competency and their positive effect on the academic achievement of secondary level. The findings of this study will contributed for the better consideration of the factors that might influence teachers' job satisfaction in the future to accomplish a gap in the literature. Finally, it is expected that the findings will contribute useful information and serve as a platform for further research into different groups of Pakistani teachers.

Research Questions

1. What is the job satisfaction of science teachers in FGEI (C/G) institutes?

2. Is there any difference between the job satisfaction of male and female science teachers?

Literature Review

Pilarta (2015) composed a research to determine teachers' performance, teachers' satisfaction and students' academic attainment to confirm the status either significant positively related or not. Most of the teachers found satisfied with their personal relationship, professional growth, promotion opportunity and achievement. However they are not satisfied with supervision and recognition. Finally researcher concluded that teachers' work success and job satisfaction are significantly related positive in terms of teachers' job performance and students' academic achievement. Georgia, Gkavras, & Doulkeridou (2013) discussed "the role of teachers' self and collective efficacy, beliefs on job satisfaction and experienced emotions in the school". The researchers inferred that the self-viability had immediate and roundabout impact, through the communication of aggregate adequacy and employment fulfillment, on the feelings.

Hoigaard, Kovac, Overby, & Haugen (2014) determined that scholastic self-viability interceded the impacts of apparent assignment objective structure, capacity structure, municipal excellence, and sportsmanship on young people's scholarly accomplishments. Banerjee, Stearns, Moller, & Mickelson (2017) concluded that school job satisfaction of teacher and school environment mutually affect student achievement. Sadeghi, Zadeh, Niayfar, and Azizi (2016) in the survey research they concluded that sociologic relationships have positive effect on personality characteristics along with the job satisfaction of academic staff and mental health. Iqbal, Aziz, Farooqi, & Ali (2016) worked on relationship between the teachers' job satisfaction and the students' academic efficiency. They concluded that work has positive and moderate relationship with advancement, partners, working terms and supervision. Additionally Colleagues has likewise positive and moderate connection with working terms and supervision. Wolomasi, Asaloei, & Werang (2019) concluded that job performance of school teachers is significantly predicted positive by their job satisfaction. Goldag (2020) quoted George and Jones (2012) for determinants of job satisfaction and found that personality, working condition, social impact and values have sound impact on the level of job satisfaction. Internal and external factors also affect the job satisfaction, especially the success and failure of the employee doing the task well or not. Self-management, discipline and development have major role in one job

satisfaction. Similarly the way of audit and salary package, team work and working environment have sound relation with job satisfaction. Kamath & Verma (2020) interpreted that the compensation has an effect on the job satisfaction level. It is the monetary benefit to the employees. It strengthens and satisfies them to do better for the institutions. Kyara (2013) found the effect of job satisfaction on primary school teachers' performance and found the lower level of job satisfaction in terms of supervision, the availability of learning teaching materials, job training opportunities, school-parents relationship, promotion opportunities, salary, communication feedback and the availability of facilities of transportation. At the end stated that the lowest level of job satisfaction may affect school teachers' absenteeism, retention and performance negatively. Ferguson, Frost, & Hall (2012) concluded that depression and stress had a significant negative impact on the job satisfaction.

According to Mullins (2008, p. 199), there is somehow debate over either job satisfaction is measured on a single axis or on multiple axes; some employees may be contented with some elements of their work while unsatisfied with others. Job satisfaction is a tough topic to quantify objectively because it is a complicated term. Mullins (2008) identified five major contributors that impact the job satisfaction are individual, social, cultural, organizational and environmental factors. Mbaya (2013) interpreted the contributors that impact the job satisfaction of public school teachers' in Nairobi and found a significant effect of good salary package and the professional growth opportunity on the job satisfaction of teachers. Moreover, Moreover, it was found that working conditions, salary, professional growth and recognitions impact mostly the teacher's job satisfaction and encouragement to do work hard.

Masaad & Ahmed (2021) have recommended that there must be proportion between the capacities of the classes and also there must be well defined policies for the incentives and promotion process. Vulley (2021) found that the benefits given to the teachers were not satisfactory as compared to the benefits given in other organizations. This has reduced the level of job satisfaction.

Kuchy & Chakraborty (2021) examined the impact of qualification and experience of the high school teachers on their job satisfaction. They found that the long experience has more impact than that of less experience. For example 15 years experienced teachers have produced better

results than the teachers with five year experience. Moreover, Ph. D and M Phil teachers have better job satisfaction than those of with low qualification.

Shaikh & Khoso (2021) concluded that working environment, leadership, nature of job and promotion criteria have great impact on performance. Toropova, Myrberg, & Johansson (2021) demonstrated that shortage of teachers and discipline of the students, team work and work load have sound relation with job satisfaction. Ekmen & Okcu (2021) investigated that the behavior of the school leadership has negative impact on teachers' job satisfaction and family has positive factor. The researcher found that about 26 percent was the variance of the total job satisfaction.

Abdulahi (2020) determined no relationship exists between the high qualification and the job satisfaction. The major factors that affect the job satisfaction are teachers' professional development and effective leadership, school culture and experience. Juevesa (2020) found that the proper knowledge of school policies and their implementation has positive impact on job satisfaction and recommended manuals of policies for the teachers for this purpose. Rasmi, Muis, & Pono (2020) presented a descriptive research on 88 private school teachers in the Makassar city and concluded that compensation has positive impact on the performance job satisfaction. Yildiz (2021) concluded that the job satisfaction differs because of the difference in the strength of the students being taught in a class, the age of the teachers, their experience in the same school and the overall teaching experience.

Chenevey, Ewing, & Whittington (2008) found a low positive relationship between job satisfaction and the emotional exhaustion with frequency ($r=.240$) and intensity ($r=.268$) dimensions. Allam (2013) concluded no significant relationship exists between anxiety and job satisfaction. Tirupathi (2013) found in a survey that teachers were contented with their job, presentation; students' achievements in the board exam and majority of teachers were satisfied with their salary. Hafeez & Akbar (2015) highlighted a strong positive relationship between flexible working condition and job satisfaction and has a value of correlation is $r = .795$ and inferred that comfortable working conditions has a strong effect on the teacher's job satisfaction. The researcher concluded that by improving work place environment the level of their job satisfaction can be raised. Aftab & Khatoon (2015) concluded that Majority of the schools at secondary level face not much stress. Most of the teachers have been observed satisfied moderately with their job. More satisfied teacher show less stress as compared to the less

satisfied or moderately satisfied teachers. The objective of the study was to determine the job satisfaction of science teachers. For this purpose following questions were addressed.

Hypothesis

H₀: There is no difference between the job satisfaction of male and female science teachers.

H_A: There is a difference between the job satisfaction of male and female science teachers.

Methodology

The problem addressed by this study was the comparative study of job satisfaction of science teachers.

Following research methodology was adopted for the study.

Research Design

The study was delimited to the following:

- Secondary School teachers for the session 2020-2021 at Federal Government Public Secondary Schools of Rawalpindi region at Rawalpindi Cantt.
- Selected academic session.

Population Sample

The population of the study was FGEI's science school teachers in the Cantonment area of Rawalpindi. The population of science teacher's i.e. 123 comprising 31 male teachers for class IX, 30 male teachers for class X, 31 female teachers for class IX and 31 female teachers for class X. The convenient sampling technique was employed. From the sample of 96 science teachers comprising 24 teachers for physics, chemistry, bio and math at equal proportion.

Tool

Questionnaire was the method of collection of data for the current study. Despite the disadvantages, the researcher came to the conclusion that it was the best primary data collection tool for studying the wide target group and answering the research questions. In this study

teacher's job satisfaction was measured by using the adapted Job satisfaction scale for different sectors of Nanjundeswaraswamy (2019)

Data Collection

Respondents of the study was 96 science teachers (Physics, Chemistry, Bio, Math) working in secondary schools of boys and girls in the Cantonment area of RWP region during the academic session 2020-2021. The data was collected from the concerned subject teachers through a questionnaire by selecting a suitable response that suits them the most. The data was collected by the researcher in 2020-2021 sessions.

Data Analysis

The researcher collected the data and coded all of the data collected in answer to the questionnaire and then logged them electronically, using the SPSS version 26 for analysis. The following statistical analysis approach was used: The internal reliability of the questionnaire items was determined 0.86 by using Cronbach's alpha. In order to analyze and draw the conclusions concerning the groups' replies and how they were divided in the questionnaire, descriptive statistics i.e. frequencies, percentages, and means were utilized.

The analysis of data was made using descriptive as well as inferential statistics when it was received from the corresponding Science Teachers. The percentage, mean, and standard deviation are calculated in descriptive statistics. To administered the objectives and hypothesis of study inferential statistics employed on the collected data accordingly.

Demographics of the Sample

The Characteristics of sample has been displayed using descriptive analysis as showed below.

Table 1: *Gender-wise Frequency Distribution of Science Teachers*

Gender	Frequencies	Percentage
Male	48	50%
Female	48	50%

Total	96	100%
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Table 1 showed that there were 96 respondents comprising 50 % males and 50 % females.

Table 2: *Gender wise distribution of Subject Teachers*

Gender			Subjects				Total
			Physics	Chemistry	Biology	Math	
Male, Female	Male	Count	12	12	12	12	48
		% of Total	12.5%	12.5%	12.5%	12.5%	50.0%
	Female	Count	12	12	12	12	48
		% of Total	12.5%	12.5%	12.5%	12.5%	50.0%

Table 2 reflected the gender wise distribution of subject teachers i.e. 12 male and 12 female teachers from each strata.

Table 3: *Gender wise distribution of Class Teachers*

Category of Class			Gender		Total
			Male	Female	
Class	9 th	Count	24	24	48
		% of Total	25%	25%	50.0%
	10 th	Count	24	24	48
		% of Total	25%	25%	50.0%

Table 3 showed the gender wise distribution of class teachers i.e. 24 male and 24 female class 9th teachers, total 48 in number (50% of class 9th teachers) and 24 male and 24 female class 10th teachers total 48 in number (50% of class 10th teachers).

SECTION –II Analysis of Job satisfaction

Table 4: *Overall Job satisfaction of science teachers*

	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree	N	Mean	SD
Overall	-	16(16.7%)	76(79.2%)	4(4.2%)	-	96	2.87	0.44

Table 4 showed the value of job satisfaction mean and standard deviation of 96 respondents. The mean and the standard deviation of their job satisfaction (M=2.87, SD=0.44).

Table 5: *Gender wise Job satisfaction of Science teachers*

Gender	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree	N	Mean	SD
Male	-	5	42	1	-	48	2.86	0.34
Female	-	11	34	3	-	48	2.87	0.38

Table 5 reflected the gender wise job satisfaction of science teachers. The mean and the standard deviation of job satisfaction of male teachers (M=2.86, SD=0.34). The mean and the standard deviation of job satisfaction of female teachers (M=2.87, SD=0.38).It interpreted that there was a slightly mean difference between the job satisfaction of science teachers.

Table 6: *Overall Job satisfaction of science teachers' w.r.t gender and class*

Class	Gender	Min	Max	Mean	SD
9 th	Male	2.52	3.52	3.05	0.33
	Female	2.31	3.50	2.83	0.35
10 th	Male	2.36	3.39	2.66	0.21
	Female	2.39	3.53	2.91	0.41

Table 6 showed the job satisfaction of teachers' w.r.t gender and class. It highlighted that their respective means and standard deviations. The mean and the standard deviation of job satisfaction of class 9th male teachers (M=3.05, SD=0.33). The mean and the standard deviation of job satisfaction of class 9th female teachers (M=2.83, SD=0.35). It interpreted that class 9th male teachers are more satisfied as compared to class 9th female teachers. The mean and the standard deviation of job satisfaction of class 10th male teachers (M=2.66, SD=0.21). The mean and the standard deviation of job satisfaction of 10th female teachers (M=2.91, SD=0.41). It interpreted that class 10th female teachers were more satisfied as compared to class 10th male teachers.

Table 7: *Job satisfaction of science teachers' w.r.t gender, class and subject*

Subjects	Class	Gender	Min	Max	Mean	SD
Physics	9 th	Male	2.73	3.44	3.01	0.31
		Female	2.31	3.36	2.71	0.36
	10 th	Male	2.41	2.91	2.66	0.18
		Female	2.44	3.53	3.00	0.43
Chemistry	9 th	Male	2.63	3.36	3.00	0.28
		Female	2.45	3.50	2.88	0.35
	10 th	Male	2.41	2.78	2.63	0.13
		Female	2.44	3.48	2.90	0.44
Bio	9 th	Male	2.52	3.42	3.11	0.42
		Female	2.45	3.47	2.91	0.40
	10 th	Male	2.61	3.39	2.82	0.29
		Female	2.45	3.53	3.02	0.43
Math	9 th	Male	2.69	3.52	3.09	0.39
		Female	2.39	3.39	2.84	0.33
	10 th	Male	2.36	2.83	2.53	0.16
		Female	2.39	3.36	2.74	0.36

Table 7 showed the job satisfaction of teachers' w.r.t gender, class and subject. It highlighted their respective means and standard deviations. From the value of mean and the standard deviation of job satisfaction of science teachers, it was concluded that Physics class 9th

male ($M=3.01$, $SD=0.31$), Chemistry 9th male ($M=3.00$, $SD=0.28$), Bio 9th male ($M=3.11$, $SD=0.42$) and Math class 9th male ($M=3.09$, $SD=0.39$) were more satisfied as compared to their opposite gender, subject and class.

Discussion

In this study, many significant factors including, the working conditions and the role of management were discussed as these are critical factors that influenced the job satisfaction. This study is somehow coherent with Shaikh & Khoso (2021) concluded that working environment, leadership, nature of job and promotion criteria have great impact on performance.

Dissatisfied teachers are not committed and would not be serving at the best of their potential. It is inevitable that teacher should be satisfied with the duties. A satisfied teacher can perform to the best of capacity.

Contrary to present research Aftab & Khatoon (2015) concluded that Majority of the schools at secondary level face not much stress. More satisfied teacher show less stress as compared to the less satisfied or moderately satisfied teachers. When occupational stress decreased then job satisfaction is increased. The management should be careful about the satisfaction of the employees. The facilities must be properly arranged and the workload must not be overruled at all. Only a satisfied and well-adjusted teacher can consider the physical and emotional health of the students. Therefore, teachers are the source of advice for all important decisions that students have to make in their academic careers. Teachers can teach with great interest, effectively, and efficiently when they are happy with their jobs.

Conclusion

It is concluded that there was a slightly mean difference between the job satisfactions of science teachers. However it interpreted that male teachers of class 9th were more satisfied as compared to class 9th female teachers. It interpreted that class 10th female teachers were more satisfied as compared to class 10th male teachers.

Recommendations

In the light of this research, following recommendations are made;

1. The findings can be more strengthened by using other data collection techniques such as interviews or focus group discussions.
2. In the future, job satisfaction of non-teaching personnel in FGEI (C/G) Pakistan should be studied.
3. To measure the acquired variables, clear and culturally relevant measurement techniques must be devised.
4. Researchers and policymakers should pay attention towards the career of teachers for the growth of quality in higher education. There must be workshops and training sessions for them on the strategies of job satisfaction. It is also recommended that further studies should be conducted on a larger scale to explore different factors regarding job satisfaction and to compare coping strategies against demographic variables.
5. The head of the institutions should be just and cooperative and have knowledge of Distributive Justice to provide facilitation at working place.
6. The administration should devise strategies to develop the environment of job satisfaction of science teachers especially by placing them near to their home stations.
7. There is needed to make appraisal system more transparent and based on realistic and achievable objectives and goals.

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