Research Article

Problems Faced by Postgraduate Biology Teachers and their Job Satisfaction

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Abstract

For teachers to achieve their professional goals effectively, they must experience satisfaction in various aspects of their work. It is essential for teachers to recognize that the objectives they set will remain mere intentions unless they make conscious efforts to accomplish them through their teaching. For those who teach science in schools, it is an appropriate time to conduct a survey-based research study to identify the challenges faced by biology teachers and to assess their level of job satisfaction. In the present study the investigator selected 120 postgraduate biology teachers by using simple random sampling technique. After framing necessary objectives and hypotheses appropriate analysis was carried out for the collected data. From the analysis it was found that, (1) the male and female postgraduate biology teachers do not differ significantly in their problems in teaching. (2) No significant difference is found between the postgraduate biology teachers from rural and urban areas in their problems in teaching. (3) There is significant difference among the postgraduate biology teachers working in government schools, aided schools and unaided schools in their problems in teaching related to methods of teaching.

Keywords: Postgraduate Biology Teachers, Job Satisfaction, Teaching Problems, Gender Differences, Urban-Rural Differences, School Management, Teaching Methods, Educational Research, Survey Study, Teacher Challenges

INTRODUCTION

At the higher secondary schools, the science teachers met so many problems. For successful teaching, co-operation of the school management, government, society and the students are essential.

Schools with indiscipline pupils and unhealthy organizational climate are hardly conducive to science teaching. Secondary Education Commission also recommended that every school must have an experimental laboratory where new apparatuses and chemicals should be kept aside for the pupils' experiment relating to their science subject. For the success of science teaching, good method of teaching is very important. But unfortunately, the traditional teaching methods suffer greatly because of the defective supervision, feedback and evaluation. And this great defect renders the entire subject teaching ineffective. As the syllabus given at high school level varies from school (government and aided) to school (state board and CBSE), the teaching may also vary. One may assume that the teachers are bound to bring about some change in their attitude towards the type of work to be undertaken by them in future. It is universally accepted that the practical experience of a student plays a role in his preparation for examination in future.

NEED AND SIGNIFICANCE OFTHE STUDY

The biology teachers have to do a number of teaching related activities in their classrooms. As if this was not enough, they should pay their attention to the messages they conveyed explicitly or implicitly about the subject. It is a masculine domain and is a hard subject where their disciples should work more and more to develop deeper understanding on the subject. Since the students become the centre of the educational system, the traditional method of teaching may create so many problems for the teachers. These problems may cause the unnecessary stress and poor job satisfaction among themselves. So, it is the right time to conduct a survey type research for finding out the problems faced by biology teachers and the level of job satisfaction. It will also help to identify the remedial measures to solve the problems of the biology teachers and to improve their job satisfaction. Hence, the problem is the need of the hour. In the present study, the investigator intended to measure the "Problems faced by Postgraduate Biology Teachers in Cuddalore District and their Job Satisfaction".

OPERATIONAL DEFINITION OFTHE KEY TERMS

The following are the definition of the key terms.

Problems: By this, the investigator means a hindrance that disrupts the continuity of teaching process among the biology teachers.

Operationally, it is the score obtained by the postgraduate biology teachers on the Problem Scale to be prepared and validated by the investigator.

Postgraduate Biology Teachers: By 'Postgraduate Biology Teachers', the investigator means the teachers handling botany and zoology subjects at the higher secondary level.

Job Satisfaction: By 'Job Satisfaction', the investigator means the level of satisfaction expressed by the postgraduate biology teachers on their teaching profession. Operationally, it is the score obtained by the postgraduate biology teachers on the Job Satisfaction Inventory prepared by Saxena(1990).

OBJECTIVES

- To find the level of problems faced by postgraduate biology teachers in teaching.
- To find the level of job satisfaction by postgraduate biology teachers.
- To find the significance of difference between male and female postgraduate biology teachers in their problems in teaching and job satisfaction.
- To find the significance of difference between the postgraduate biology teachers from rural and urban areas in their problems in teaching and job satisfaction.
- To find the significance of difference among the postgraduate biology teachers working in government schools, aided schools and unaided schools in their problems in teaching and job satisfaction.
- To find the significance of relationship between the problems faced by postgraduate biology teachers in teaching and their job satisfaction.

NULL HYPOTHESES

1. There is no significant difference between male and female postgraduate biology teachers in their problems in teaching.
2. There is no significant difference between the postgraduate biology teachers from rural and urban areas in their problems in teaching.
3. There is no significant difference among the postgraduate biology teachers working in government schools, aided schools and unaided schools in their problems in teaching.
4. There is no significant difference between male and female postgraduate biology teachers in their job satisfaction.
5. There is no significant difference between the postgraduate biology teachers from rural and urban areas in their job satisfaction.
6. There is no significant difference among the postgraduate biology teachers working in government schools, aided schools and unaided schools in their job satisfaction.
7. There is no significant relationship between the problems faced by postgraduate biology teachers in teaching and their job satisfaction.

METHODS ADOPTED IN THE PRESENT STUDY

In the ,present study, the investigator intended to measure the "Problems faced by Postgraduate Biology Teachers in Cuddalore District and their Job Satisfaction". So this study aims at finding the problems faced by postgraduate biology teachers and the level of job satisfaction. The investigator has to gather data from a relatively large number of sample. Hence, the survey method is the suitable as well as best method.

POPULATION AND SAMPLE

The population of the present study consists of all the postgraduate biology teachers working in higher secondary schools located in Cuddalore.

In the present investigation, the investigator prepared and validated a scale on problems in teaching biology. To find out the level of job satisfaction, the investigator used 'Job Satisfaction Scale' standardized by Saxena (1990). The investigator discussed with postgraduate biology teachers regarding their problems faced during biology teaching. The

investigator prepared a scale consisting of 70 items after consulting the guide. The investigator included seven dimensions such as (1) Problems related to School, (2) Problem related to Lesson Plan Writing, (3) Problems related to Methods of Teaching, (4) Problems related to Nature of Teaching, (5) Problems related to Pupil's Response, (6) Problems related to Teaching Aid and Textbook, and (7) Problems related to Classroom Management and Discipline in the questionnaire.

VALIDITY & RELIABILITY OF THE TOOL

The draft tool was given to the professors of Annamalai University, Department of education for scrutiny. They studied the tool thoroughly and suggested some modifications on the content. Hence, content validity of the tool was established. For establishing reliability, the investigator used test-retest method. Both the scales were given to 20 postgraduate biology teachers. The Pearson Product Moment Correlation was used to find the reliability coefficient between the two sets of scores. It was found to be 0.84 for Scale on Problems in Teaching Biology. and 0.77 for Job Satisfaction Scale. Thus, the reliability of the tools was established.

STATISTICAL TECHNIQUES USED

The investigator for analyzing the data used following major statistical techniques. Percentage analysis; Mean; Standard Deviation; Test of significance (t-test) and co-efficient of correlation.

ANALYSIS AND FINDING OF THE STUDY

OBJECTIVE TESTING

1. To find the level of problems faced by postgraduate biology teachers in teaching.

Table 1

Level of Problems Faced by Postgraduate Biology Teachers in Teaching

Problems	Less		More	
	N	%	N	%
School	85	70.83	35	29.17
Lesson Plan Writing	75	62.50	45	37.50
Methods of Teaching	104	86.67	16	13.33
Nature of Teaching	103	85.83	17	14.17

--	95	79.17	25	20.83
Teaching Aid and Textbook	97	80.83	23	19.17
Classroom Management and Discipline	118	98.33	2	1.67
Total	73	60.83	47	39.17

It is revealed from the above table that 60.83% of postgraduate biology teachers faced less problems in teaching.

Moreover, they faced less problems in school (70.83%), lesson plan writing (62.50%), methods of teaching (86.67%), nature of teaching (85.83%), pupil's response (79.17%), teaching aid and textbook (80.83%), and classroom management and discipline (98.33%).

2. To find the level of job satisfaction of postgraduate biology teachers.

Table 2.

Level of Job Satisfaction of Postgraduate Biology Teachers

Variable	Low		High	
	N	%	N	%
Job Satisfaction	35	29.17	85	70.83

From the above table, it is found that the 70.83% of postgraduate biology teachers have high level job satisfaction.

HYPOTHESIS TESTING

Null Hypothesis 1

There is no significant difference between male and female postgraduate biology teachers in their problems in teaching.

Table 3

Difference in Problems Faced by Postgraduate Biology Teachers in Teaching with regard to Gender

Problems	Gender	N	Mean	SD	Calculated	Table Value	Remark
School	Male	63	0.79	1.45	1.48	1.98	NS
	Female	57	1.23	1.74			
	Male	63	2.56	0.88			

Lesson Plan Writing	Female	57	2.42	0.89	0.84	1.98	NS
Methods of Teaching	Male	63	2.87	0.73	0.03	1.98	**NS**
	Female	57	2.88	0.68			
Nature of Teaching	Male	63	0.37	0.97	0.13	1.98	NS
	Female	57	0.39	0.84			
Pupils Response	Male	63	0.73	1.07	0.24	1.98	NS
	Female	57	0.68	1.00			
Teaching Aid and Textbook	Male	63	2.46	1.43	1.52	1.98	NS
	Female	57	2.93	1.90			
Classroom Management and Discipline	Male	63	0.06	0.30	1.41	1.98	**NS**
	Female	57	0.16	0.41			
Total	Male	63	9.84	3.84	1.15	1.98	**NS**
	Female	57	10.68	4.17			

From the above table, it is found that the calculated 't' values are less than the table value at 0.05 level of significance, the null hypothesis is accepted.

Null Hypothesis 2

There is no significant difference between the postgraduate biology teachers from rural and urban areas in their problems in teaching.

Table4

Difference in Problems Faced by Postgraduate Biology Teachers in Teaching with regard to Locality of Residence

Problems	Locality of Residence	N	Mean	SD	Calculated t Value	Table Value	Remark
School	Rural	98	0.97	1.58	0.41	1.98	NS
	Urban	22	1.14	1.75			
Lesson Plan Writing	Rural	98	2.50	0.90	0.24	1.98	NS
	Urban	22	2.45	0.80			
Methods of Teaching	Rural	98	2.89	0.73	0.48	1.98	NS
	Urban	22	2.82	0.59			
Nature of Teaching	Rural	98	0.43	0.95	1.75	1.98	NS
	Urban	22	0.14	0.64			
Pupils Response	Rural	98	0.76	1.08	1.26	1.98	NS
	Urban	22	0.50	0.80			
Teaching Aid and Textbook	Rural	98	2.63	1.65	0.65	1.98	NS

	Urban	22	2.91	1.82			
Classroom Management and Discipline	Rural	98	0.12	0.39	1.28	1.98	NS
	Urban	22	0.05	0.21			
Total	Rural	98	10.30	4.04	0.32	1.98	NS

From the above table, it is found that the calculated 't' values are less than the table value at 0.05 level of significance, the null hypothesis is accepted.

Null Hypothesis 3

There is no significant difference among the postgraduate biology teachers working in government schools, aided schools and unaided schools in their problems in teaching.

Table 5

Difference in Problems Faced by Postgraduate Biology Teachers in Teaching with regard to Type of School

Problems	Type of School	Mean	SSb	SSw	df	Calculated FValue	Table Value	Remark
School	Government	0.90	0.87	305.13	2, 117	0.17	3.07	NS
	Aided	1.07						
	Unaided	1.00						
Lesson Plan Writing	Government	2.58	1.34	90.65	2, 117	0.87	3.07	NS
	Aided	2.41						
	Unaided	3.00						
Methods of Teaching	Government	3.04	3.47	55.66	2, 117	3.65	3.07	S
	Aided	2.74						
	Unaided	3.50						
Nature of Teaching	Government	0.44	0.58	97.54	2, 117	0.35	3.07	NS
	Aided	0.34						
	Unaided	0.00						
Pupils Response	Government	0.80	2.23	124.56	2, 117	1.05	3.07	NS
	Aided	0.62						
	Unaided	1.50						
Teaching Aid and Textbook	Government	2.52	3.60	332.36	2, 117	0.63	3.07	NS
	Aided	2.82						
	Unaided	2.00						

Classroom Management and Discipline	Government	0.20	0.72	14.87	2, 117	2.85	3.07	NS
	Aided	0.04						
	Unaided	0.00						
Total	Government	10.48	6.64	1903.35	2, 117	0.20	3.07	NS
	Aided	10.04						
	Unaided	11.00						

From the above table, it is found that the calculated 'F' values are less than the table value at 0.05 level of significance, the null hypothesis is accepted in the case of total and in the school, lesson plan writing, nature of teaching, pupils' response, teaching aid and textbook, and classroom management and discipline.

But, the calculated 'F' values are greater than the table value at 0.05 level of significance, the null hypothesis is rejected in the case of the dimension - methods of teaching. The unaided school teachers have more problems in methods of teaching.

Null Hypothesis 4

There is no significant difference between male and female postgraduate biology teachers in their job satisfaction.

Table 6

Difference in Job Satisfaction of Postgraduate Biology Teachers with regard to Gender

Gender	N	Mean	SD	Calculated tValue	Table Value	Remark
Male	63	24.41	0.93	1.49	1.98	NS
Female	57	24.16	0.94			

From the above table, it is found that the calculated 't' value is less than the table value at 0.05 level of significance, the null hypothesis is accepted.

Null Hypothesis 5

There is no significant difference between the postgraduate biology teachers from rural and urban areas in their job satisfaction.

Table 7

Difference in Job Satisfaction of Postgraduate Biology Teachers with regard to Locality of Residence

Locality of Residence	N	Mean	SD	Calculated tValue	Table Value	Remark
Rural	98	24.28	0.95	0.41	1.98	NS
Urban	22	24.36	0.90			

From the above table, it is found that the calculated 't' value is less than the table value at 0.05 level of significance, the null hypothesis is accepted.

Null Hypothesis 6

There is no significant difference among the postgraduate biology teachers working in government schools, aided schools and unaided schools in their job satisfaction.

Table 8

Difference in .Job Satisfaction of Postgraduate Biology Teachers with regard to Type of School

Type of School	Mean	SSb	SSw	df	Calculated FValue	Table Value	Remark
Government	24.18	1.10	103.69	2,117	0.62	3.07	NS
Aided	24.37						
Unaided	24.50						

From the above table, it is found that the calculated 'F' value is less than the table value at 0.05 level of significance, the null hypothesis is accepted.

Null Hypothesis 7

There is no significant relationship between the problems faced by postgraduate biology teachers in teaching and their job satisfaction.

Table 9

Relationship between Problems Faced by Postgraduate Biology Teachers in Teaching and their Job Satisfaction

Problems	N	Calculated rValue	Table Value	Remark

School	120	-0.676	0.180	S
Lesson Plan Writing	120	-0.613	0.180	S
Methods of Teaching	120	0.221	0.180	S
Nature of Teaching	120	-0.317	0.180	S
Pupils Response	120	-0.623	0.180	S
Teaching Aid and Textbook	120	-0.548	0.180	S
Classroom Management and Discipline	120	-0.218	0.180	S
Total	120	-0.848	0.180	S

From the above table, it is found that the calculated 'r' values are greater than the table value at O.05 level of significance, the null hypothesis is rejected.

INTERPRETATIONS

Significant difference is found among the postgraduate biology teachers working in government schools, aided schools and unaided schools in their problems in teaching related to methods of teaching.

The unaided school teachers have more problems in methods of teaching. This may be due to the fact that majority of the private school managements do not bother about the qualifications of their teachers. They do not pay enough for the qualified teachers. So, they appoint some unqualified teachers and they do not know about the different methods of teaching. Hence, they differ significantly.

The problems faced by postgraduate biology teachers in teaching are significantly correlated with their job satisfaction. The reason behind this finding is that the teachers with more problems in teaching profession are not much involved in their profession. When they are not involved wholeheartedly, their level of job satisfaction is somewhat low or even poor. Hence, the variable -problems in teaching, is the influencing factor for the variable - job satisfaction.

SUGGESTIONS FOR FURTHER INVESTIGATION

The investigator would like to suggest the following research topics for further investigation:

- The same study can be carried out in all the districts of Tamilnadu.
- The same study can be carried out on the other subject teachers.

- A study on the problems in using modern teaching methods faced by PG teachers and their teaching competence.
- A critical study on the job oriented problems faced by UG and PG teachers in related to their professional commitment.
- A study on the selected teacher characteristics hold by BT Assistants in terms of their personality traits.

CONCLUSION

The investigator would like to recommend the following for improving their job satisfaction and solving the problems of postgraduate biology teachers: The government should announce the travelling allowance for the teachers who are extensively travelling for their teaching profession.

Otherwise, the government should arrange quarter facilities for these teachers to reduce their traveling time, which in turn, their job satisfaction may also improve. The teachers working in the higher secondary schools should support the fresher's or newly appointed teachers by all means.

This moral as well as technical support may develop good rapport among the teacher community. This may also improve their job satisfaction. The government should provide more financial assistance for improving the infrastructural facilities like well-equipped laboratories, lavatories, library, refreshment rooms for the shake of the teachers. This will reduce the job related stress among the teachers. The government may implement techno-based classrooms at the higher secondary level. In these classrooms, multimedia projectors, speakers, white boards with markers, highlighting pens, optical lights for pointing the matters in the boards etc. By using these things, the teacher can make the classrooms in a lively manner and the taught also feel more convenient in the learning of subject matter. CDs, working and non-working models for explaining the biological concepts, encyclopedia of science and technology should be purchased and handed over the biology teachers. While using these innovative educational resources, the teacher's teaching method may more effective. The students also learn the matter with enthusiasm. Since the teachers are social reformers and shouldering the responsibilities of making the future citizens, they have to play a vital role in educating the younger generation.

Realizing this fact, the teachers should involve themselves and work more and more for the benefit of the younger generation.

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