

Researcher Teacher Program: Achievements and Shortcomings

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Received: July 24, 2016

Accepted: October 10, 2016

Online Published: February 27, 2017

doi:10.5539/ies.v10n3p99

URL: <https://doi.org/10.5539/ies.v10n3p99>

Abstract

This paper reports the results of a study entitled "Pathology and Researcher Teacher Program promotion and development approaches". The aim of this study is to identify achievements, the cooperation and participation of teachers and principals in school activities in Researcher Teacher Plan and awareness of the shortcomings and obstacles in the implementation of this program. The research method is descriptive. The population statistic in this study involves two groups of researcher and non-researcher teachers and administrators. The sample consisted of 500 members who are estimated according to the population size on the basis of Kerjcie and Morgan table. Moreover, to select desired sample, multi-stage sampling method is used. Totally, 19 districts region of Tehran are divided into 5 categories and one region is randomly selected of each category and also from each region girls and boy's school in primary school, secondary and high schools are chosen randomly and a number of researcher and non-researcher teachers and administrators of schools are selected randomly as samples size. Two types of questionnaire are used for data collection. In order to study the form and content tools, the opinions of 10 experts and Cronbach's alpha is used to calculate reliability. The results showed that obstacles and shortcomings measurement has are significant level of $P < 0.5$ and alpha coefficient is obtained 0.715 and questionnaire to assess the qualitative achievements of the plan has a significant level $P < 0.5$ and Alpha as 0.587. Results showed achievements for researcher teacher is far greater than non-researcher teachers and administrators. Furthermore, researcher teachers and administrators have participated more than non-researcher ones in holding briefings, workshops and council meetings teachers but no significant differences appears in participation between the two groups of teachers in workshops and council meetings there. Non-Researcher teachers and administrators state that obstacles and shortcomings of non-researcher teacher's plans are more than researcher teachers and administrators. However, both group almost are deployed similarly the first six obstacles as priorities 1 to 6.

Keywords: teachers, administrators, researcher teacher program, Iranian education

1. Introduction

Researcher Teacher Program is type of program that started in 1375 by the Institute for education and its implementation has continued annually (Haqgoo, 2004). In current year 18th meetings of researcher teacher has been implemented. The aim of this program is to enforce teachers to undertake research during identifying the education problems and improving the quality of education. Although teachers participations in this program has so far upward trend and this has led to the continued existence of the program but this program also faced difficulties despite sufficient achievements (Qasemi-Puya, 2003, Moghaddam, 2014, Esfahani, 2016). Identification of these problems and removing obstacles in the way can lead to the development of this plan.

2. Problem Statement

Action research approach has penetrated in the field of educational research by the social movement known as the "researcher teacher" during (1960-1970). Action research is a kind of Practitioner research is executed during job schedule and can help teachers do a better manner in their job duties. Levin consider teacher as the most worthy person in recognition of the problem and finding a solution in the process of action research (Ahanchian, 2007, Moghaddam, 2016).

The movement of researcher teacher is commenced by with Lawrence Austin House (1975-1971). According to his viewpoint, whole training should be established based on research and study and improve curriculum is the duty of teachers (Chaychi, 2005, Moghaddam, 2015). Based on international experiences in this field, researcher

teacher program is designed and implemented in Iran. The objectives of this program include honoring the experiences of research and teachers innovation in classroom, creating incentives for the growth and development of teachers, self-esteem and contributing growth of potential talents of educational teachers and managers and employees to solve problems, provide grounds for rehabilitation and effectiveness in the process of education in the country and also involvement of teachers in research projects handling and documentation of their experiences (Institute of Education, Tehran, 1996).

Currently, this program is underway for the nineteenth time. Continued existence of this program indicates its efficiency and effectiveness. However, research studied in this area shows that despite demonstrating appropriate results, this program has encountered difficulties (Nami, 2014; Amoozaadeh, 2005; Chaychi, 2006). This research seeks to fine damages and defects of researcher teacher program and achieve development strategies from the perspective of researcher and non-researcher teachers and administrators. The researcher teachers and administrators are people who have participated in the Tehran researcher teacher program at least once time and besides non-researcher teachers and administrators are ones who have never participated in this program.

Questions of the research study

- 1) Are there significant difference between two groups of researcher and non-researcher teachers and administrators about achievements of the programs?
- 2) Is there a significant difference between participation rates of two groups of researcher and non-researcher teachers and administrators in school activities in the context of the program?
- 3) Is there a significant difference between two groups of researcher and non-researcher teachers and administrators about the shortcomings and obstacles of the program?

3. Research Method

The research method of this study is descriptive (survey). The population of this research has focused on two groups: the first group includes researcher teachers and administrators (at least have participated once time in researcher teacher program in Tehran) and second group encompass non-researcher teachers and administrators (which is never participated in researcher teacher program).

The sample size consisted of 500 researcher and non-researcher teachers and administrators who are estimated according to population size on the basis of Kerjcie and Morgan table. To select a desired sample, multi-stage sampling method is used. The 19 districts region of Tehran are divided into 5 classes on the basis of cultural, social and economic and then one region from each category (totally 5 regions) has been selected randomly.

Two types of questionnaire are used for data collection. In order to study the form and content tools, the opinions of 10 experts and Cronbach's alpha is used to calculate reliability. The results showed that obstacles and shortcomings measurement has are significant level of $P < 0.5$ and alpha coefficient is obtained 0.715 and questionnaire to assess the qualitative achievements of the plan has a significant level $P < 0.5$ and Alpha as 0.587.

4. Research Results

Demographic information about those who have attempted to complete and return the questionnaire indicated that 39.3% of them were managers and assistants of schools and 60.7% of them were teachers. About 56 percent of respondents are employed in boy's schools and about 44 percent are employed in girls' schools in Tehran. About 65% of the population statistic owned bachelor's degree and about 15 percent of them were owned master's degree and 20 percent have not mentioned their educations. Moreover, about 47.4 percent of respondents were teaching in elementary school, 20.42 in middle school and 32.4% in secondary school. Finally, about 58.9 percent of teachers has passed training course of action research.

In this section, research questions are answered using the findings of the research.

Answer to the first question) Are there significant difference between two groups of researcher and non-researcher teachers and administrators about achievements of the programs?

In order to answer this research question, 19 questions are included in the questionnaire. These questions seek to evaluate the effectiveness of researcher teacher program on knowledge enhancement, attitudes improvement and behaviors of teachers and school managers and transforming research-oriented atmosphere and space. In above Table, mean scores of both group's responses and their ranking are listed in addition of number of respondents.

Table 1. Qualitative achievements of researcher teacher program

Non researcher teachers and principals			Researcher Teachers and administrators			Achievements of researcher teacher	row
rank	Average on a scale 1-5	number	rank	Average on a scale 1-5	number		
2	3.86	195	5	3.92	215	Researcher Teacher program is to increase teachers' competence in solving problems in the classroom.	1
1	3.38	197	3	3.97	216	Researcher Teacher program has been enhanced self-esteem among teachers.	2
13	3.24	193	12	3.79	215	Researcher Teacher program creates opportunities for all teachers in different disciplines to exploit research.	3
5	3.33	194	1	4.00	214	Researcher Teacher program can develop innovation in curriculum and solve student behavioral and educational problems.	4
14	3.24	195	9	3.81	213	Researcher Teacher's increase the necessity of this research on resolving education issues	5
19	3.09	194	18	3.57	216	Researcher Teacher's spread a relative concept and philosophy of researcher teacher among teachers.	6
7	3.30	195	6	3.89	215	Researcher Teacher's may growth potential and talents of teacher.	7
12	3.24	189	7	3.84	212	Researcher Teacher program change the attitudes of the teachers towards research.	8
4	3.33	190	4	3.97	216	Researcher Teacher program may cause mental involvement of teachers with scientific approach in the teaching-learning process.	9
3	3.35	188	13	3.78	210	Researcher Teacher program change the attitudes of the administrators toward the research.	10
11	3.25	194	14	3.76	215	Researcher Teacher program creates opportunities for interaction and collaboration between teachers, administrators and students.	11
6	3.32	192	2	3.99	214	Researcher Teacher program makes teachers' academic experiences as a document.	12
17	3.14	189	15	3.76	212	Researcher Teacher program leading to magnify professional roles of teacher.	13
18	3.10	193	19	3.47	214	Researcher Teacher program would provide the necessary resources (books, periodicals, etc.) for research activities of teachers.	14
8	3.30	193	10	3.81	216	Generally, this program would provide grounds for enhancement of researcher teacher knowledge.	15
9	3.30	191	11	3.79	214	Generally, this program change behavior of teachers in classroom.	16
16	3.18	192	16	3.72	211	In general, researcher teacher can build and strengthen motivated action research among teachers.	17
10	3.26	187	17	3.62	213	In general, researcher teacher can build and strengthen motivated action research among schools administrators.	18
15	3.10	191	8	3.82	211	Researcher Teacher program leads to decentralization in the research and graduation of study from the monopoly of elites.	19
	3.26			3.80		Total average	

According to mean scores of researcher teachers and administrators (3.80) and mean scores of non-researcher teachers and administrators (3.26) we can say both groups have higher than average believed that the program has been successful and have achievements to earn.

In order to determine the differences between two groups of researcher and non-researcher teachers and

administrators about the achievements, t test is used. For more accurate results, 19 questions are arranged in two categories. The first group contains questions that measured researcher teacher's program achievements in the field of developing research-oriented school environment and the second category is intended to examine increase knowledge, improve attitudes and behaviors of teachers and administrators. The results of these two questions are presented in Tables 2 and 3.

Table 2. Comparison of researcher and non-researcher teachers and administrators ideas about penetrations of researcher teacher programs in development of research-oriented atmosphere and space in school (using T-Test, Group Statistics)

95% Confidence Interval of the Difference		Std. Error Difference	Mean Difference	Sig. (2-tailed)	Degree of freedom	t calculated	Significant	F calculated	Variances	Std. Error Mean	Std. Deviation	Mean score	Number	Group of teachers and principals	Achievements
Lower limit	Upper limit								Equal variances assumed	0.07	1.03	3.26	197	Non Inquiring	The atmosphere and space
-0.38	-0.74	0.09	-0.56	0.000	411	-6.16	0.001	12.05	Equal variances not assumed	0.05	0.80	3.82	216	Inquiring	research-oriented school

In general, t test reveals difference among mean scores significant with strong reliability ($\text{sig}=0.000<0.01$) which means the researcher teacher program has been successful in the field of research-oriented atmosphere and space in school from the perspective of researcher teachers and administrators

Table 3. Comparison the viewpoints of researcher and non- researcher teachers and administrators about penetrations of researcher teacher program in increasing knowledge, improve attitudes and behaviors of teachers and managers (using T-Test, Group Statistics)

95% Confidence Interval of the Difference		Std. Error Difference	Mean Difference	Sig. (2-tailed)	Degree of freedom	t calculated	significant	F calculated	variances	Std. Error Mean	Std. Deviation	Mean number	Group of teachers and principals	Achievements	
-0.32	-0.72	0.10	-0.52	0.000	408	-5.13	0.001	11.0	Equal variances assumed	0.08	1.12	3.26	194	Non Inquiring	Increase knowledge, improve attitudes and behaviors of teachers and principals
-0.32	-0.72	0.10	-0.52	0.000	375	-5.08			Equal variances not assumed	0.06	0.92	3.77	216	Inquiring	

Generally, t test reveals meaningful difference among two average (sig = 0.000<0.01) with strong reliability which means from the perspective of teachers and administrators increase knowledge, improve attitudes and behaviors of teachers and administrators as the achievements of researcher teacher is higher than of non-researcher teachers and administrators.

The answer to the second question: Is there a significant difference between participations of two groups of researcher and non-researcher teachers and administrators in school activities in the context of implementing corresponding program?

To answer this question, special questions are included in the questionnaire that demonstrate the participation of researcher teachers and administrators in school activities in the field of implementation of program includes holding briefings, workshops and measure teachers Council. The answers of two groups of teachers and administrators to questions are presented in Table 4.

Table 4. Answers of two groups of teachers and administrators about the participation in school activities in the field of researcher teacher program

Participation in the meetings of the Council of teachers in improving researcher teacher program				Participation in school workshops in the field of action research				Participation school briefings about researcher teacher				Options	
Always	sometimes	rarely	Never	Always	sometimes	rarely	Never	Always	sometimes	rarely	Never	Percent	non researcher teachers and principals
19.9%	44.7%	18.9%	16.5%	9.9%	36.6%	19.8%	33.7%	20.3%	43.5%	18.4%	17.9%		
24.9%	44.5%	15.3%	15.3%	12.0%	42.6%	16.3%	29.2%	28.4%	46.0%	13.3%	12.3%		Of researcher teachers and administrators

To compare the participation of two groups of teachers and administrators in briefings meeting in school in the field of researcher teacher program, chi-square test is used. This test separate the difference levels of notification

with sufficient confidence (at least at 90 percent confidence level, $\text{sig} < 0.1$) ($\text{sig} = < 0.10$). Hence, it can be stated that researcher teachers and administrators participate in the briefings meeting in schools.

In the case of educational workshops in school in the field of action research and council meetings of teachers, although participation rates of researcher teachers and administrators was more than non-researcher ones, chi-square test does not show a significant difference with sufficient confidence in both cases. ($\text{sig} > 0.05$), which mean no relationship exist between teachers and administrators participations in workshops and attendance at council of teachers meetings.

The answer to third question: Is there a significant difference between two groups of researcher and non-researcher teachers and administrators about the shortcomings and obstacles of the program?

To answer this question 27 items are included in the questionnaire in order that case studied samples express their opinion abide by selecting the appropriate option. The mean score responses and their ranks based on two groups of respondents are presented in Table 5.

Table 5. The mean score responses and their ranks based on two groups of respondents

Non researcher teachers and principals		researcher teachers and administrators		<i>Teachers and administrators</i>		Obstacles and shortcomings of researcher teacher program	row	Classification of obstacles and shortcomings	
rank	mean score	number	rank	mean score	number				
23	2.91	192	14	2.95	214	How can Limitations of teachers discipline influence on preventing their participation in the researcher teacher program?	1		
19	3.03	194	9	3.10	214	How can restrictions of teacher education impact on inhibiting their participation in the program?	2		
18	3.04	192	11	3.05	212	How can teachers work experience limitations influence in inhibiting their participation in the program?	3		
8	3.35	191	7	3.34	210	How can teachers gender restrictions impact on preventing their participation in the program?	4		
3	3.97	191	3	3.96	211	How can economic problems impact on preventing their participation in the program?	5	Related	to the person
1	4.26	191	1	4.30	213	How can Lack of time for study and research in school impact on preventing their participation in the program?	6		
2	4.06	193	2	4.17	213	How can lack of dominancy on preparation reports related to action research impact on teachers participations in the program?	7		
20	3.01	191	15	2.94	211	How much is school teachers dominate on the action research methodology?	8		
4	3.78	192	5	3.62	213	What is the rate of Lack of motivation and research spirit of teachers in the school to participate in a researcher teacher program?	9		
10	3.29	191	8	3.27	211	How much school teachers being informed about philosophy, concept and objectives of the researcher teacher?	10		
25	2.59	187	25	2.41	210	How much cooperation of schools managers' impact on the promotion of researcher teacher program?	11	Related	to the school
21	2.98	192	21	2.64	211	How much the research substrate is provided at the school? (Culture, research, manager interests, colleague cooperation, etc.)	12		

16	3.16	191	12	3.02	212	How much research activities facilities (equipment, resources, etc.) are provided at the school?	13	
27	2.54	187	27	2.11	213	How much the action research training course is useful for preparedness of teachers to carry out action research projects?	14	
26	2.56	171	26	2.32	203	How much is the scientific knowledge and proficiency of teachers in action research during service education class?	15	Related to the job training
17	3.13	171	18	2.83	202	How much are you satisfied about time and place of holding action research courses?	16	
15	3.16	171	20	2.74	200	In general, is the quality and quantity of action research courses acceptable?	17	
12	3.24	172	17	2.85	202	How much is existing methods of action research projects evaluation appropriate?	18	
7	3.36	166	13	2.99	202	How are you satisfied of feedback from the evaluation of research plans?	19	Related to Evaluation of action research
14	3.19	164	16	2.85	205	How much is your trust into evaluation method?	20	
9	3.30	172	10	3.10	207	How much the current method of appreciation and encouragement of researcher teachers compromising?	21	Related to Promoting inquiring teacher
13	3.19	182	22	2.63	214	Are you satisfied of current Call and informing method of researcher teacher program?	22	Related to dissemination
6	3.38	173	6	3.5	208	How much lack of costs related to action research impacts on preventing this activity at school?	23	
5	3.72	177	4	3.86	208	How much the absence of laws and regulations supporting research teacher's impact on preventing them from participation of researcher teachers program?	24	
22	2.92	177	24	2.55	208	How much is the attention of regional authorities to promotion of researcher teacher's program goals and objectives?	25	Related to Planning and management
24	2.83	176	23	2.60	208	How much is the Coordination and cooperation between the school, region and general Directorate for the implementation of researcher teacher program?	26	
11	3.26	183	19	2.75	212	In general, how much is your satisfaction about the implementation of current researcher teacher programs?	27	

In order to determine the differences between two groups of researcher and non- researcher teachers and administrators about the obstacles and shortcomings of the program, t-test is used in which the results are presented in Table 6.

Table 6. Comparison of researcher and non-researcher teachers and administrators viewpoints about the obstacles and shortcomings of researcher Teacher program (using T-Test, Group Statistics)

95% Confidence Interval of the Difference		Std. Error Difference	Mean Difference	Sig. (2-tailed)	Degree of freedom	t calculated	Significant	F calculated	variances	Std. Error Mean	Std. Deviation	Number	Group of teachers and principals	
Lower	Upper													
0.28	0.10	0.05	0.19	0.000	407	4.027	0.435	0.61	Equal variances assumed	0.03	0.49	3.24	195	Non-researcher
0.28	0.10	0.05	0.19	0.000	396.58	4.014			Equal variances not assumed	0.03	0.45	3.06	214	researcher

Totally, t-test shows significant differences between averages with strong confidence ($\text{sig}=0.000<0.01$) which means non-researcher teachers believe obstacles shortcomings of this program is greater than what was assumed by researcher teachers.

5. Conclusion

This paper has investigated the researcher teacher program in three categories including quantitative and qualitative achievements, the level of activities executed in the field of researcher teacher by schools in partnership of teachers and administrators and obstacles and shortages in terms of researcher and non-researcher teachers and administrator's viewpoints. Particularly, about quantitative and qualitative achievements both sample groups state that researcher teacher led the research-oriented atmosphere and space in the school and impact on enhancement of knowledge, improve attitudes and behavior of school teachers and administrators in higher than average level.

However, due to the significant difference between the mean scores of two groups it can be concluded that achievements of researcher teacher program has been much more than for non-researcher teachers and administrators.

Meanwhile, about activities carried out about researcher teacher program by schools in accordance with teachers and administrators partnership results showed that although both groups have participated higher than average in briefings meeting, but according to the chi-square test results researcher teachers and administrators had participated more than non-researcher ones. The results indicate that about holding workshops both groups participations was less than average and about meetings of teachers Council both group participate higher than average. However, the participation of researcher teachers and administrators were more than non-researcher one, but chi-square test showed no significant difference.

About obstacles and shortcomings of research, findings showed that both groups accept significantly higher than the average of the shortages mentioned about researcher teacher program but due to the significant difference observed in average score by using the t test, non-researcher teachers and administrators have assessed obstacles and shortcomings of the program more than researcher teacher and administrators.

- Lack of study and research time at school (Rank 1)
- Not dominant in preparation of action research report (rank 2)
- Economic problems of teachers (Rank 3)

The next obstacles are either the same or compromised by one rank for each Group:

- Lack of motivation and research spirit of teacher in the school to participate in researcher teacher program (rank 4 is attributed to non-researcher and rank 5 is attributed to researcher)
- The absence of laws and regulations supportive for researcher teacher participated in researcher teacher program (rank 4 is attributed to non-researcher and rank 5 is attributed to researcher)
- Lack of school fees for executing action research (rank 6 by both groups)

6. Suggestions

- 1) Researcher Teacher program must be revised so that by providing supportive laws and regulations for researcher teachers attracts more teachers to participate in this program.
- 2) Holding qualitative briefings meetings, workshops and teacher's council meetings in the field of researcher teachers program to enhance the motivation and ability of them to execute action research.
- 3) Necessary opportunities to study and carry out action research to be included in the teacher's routine schedules.
- 4) Sufficient mechanism must be provided for estimating the costs of executing action research to support the necessary financial resources at the disposal of teachers.

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