Attitude towards Action Research of Primary Teachers in Relation with their Levels of Research Experience and Some Other Variables

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ABSTRACT

Action research is a self-initiated scientific way to solve own problems of an individual. The immediate objective of this type of research is to find out the appropriate solution to improve the effectiveness of work, activity or process. In educational scenario, action research is related with different types of evaluative, investigative and analysis related research activities planned to diagnose problems and weakness. It is not just a diagnostic process but it is very effective to test and proposed a new insight to solve the problem too.

Positive attitude towards any work or thought significantly motivates an individual to work enthusiastically. Attitude determine how people's feeling, thinking process, motivation and to behave a particular situation. In this context present study was conducted to know the level of Attitude towards Action research of primary teachers, to know if there any significant difference in the level of Attitude towards Action research of primary teachers on the ground of their gender, type of school, academic qualification, and levels of research experiance. Survey method was applied to conduct this study. Total 130 Primary teachers were selected as the sample in the study. There were 69 female and 61 male primary teachers in the sample. Action Research Attitude Scale (ARAS) was used to collect the data. Study revealed that primary teachers were showing moderate level of Attitude towards action research. There was a significance difference in the level of attitude towards action research on the ground of their gender, school type, qualification, teaching experience and research experience.

Keywords: *Action research, Attitude.*

Introduction :

Education is an essential factor for all round development of individual and society. Competent and committed teachers are the pioneer of quality of education. Teacher has the responsibility to nurture the next generation by his/her knowledge, skill as well as insight. It is the duty of teacher to find out the solution of academic problems in a scientific manner to improve the quality of teaching-learning process. It is common observation that teachers have to face many problems during their academic work in schools or colleges. To face these problems effectively, orientation towards research related activities are necessary. Research assists them to search for viable solutions in a systematic manner.

There are three types of researches named; Basic, Applied and Action Research. Among these researches, the practice of action research is more beneficial for teachers to deal their day to day academic problems and to ensure qualitative teaching-learning process.

Action research: Action research is a set of two words; Action and Research. Research is a truth finding process in it general meaning. Basically research is a scientific investigation to establish facts and develop new theories. At other hand the word 'Action' stands for the process of doing something to achieve an aim. Action is also reveals it's meaning in the act which is in continuation. In this concern Action research can be defined in a systematic investigation into and study of situation, materials and sources in order to find immediate solution to reach new conclusion.

Action research is either initiated to solve an immediate problem or a reflective process of progressive problem solving led by individuals working with others in teams or as part of a community practices to improve the way they address issues and solve problems. Action research is a small-scale intervention in the functioning of the real world and a close examination of the effects of such intervention (Halsey,1972,). Core (1953) states that action research is a process by which practitioners attempt to study their problems scientifically in order to guide, correct and evaluate their decisions and actions. Describing the action research, Best (2009) said, 'Action research is focused on the immediate application, not on the development of the theory, nor upon general application. It has placed its emphasis on a problem, here and now, in a local setting. Its findings are to be evaluated in terms of local applicability, not in terms of universal validity. Its purpose is to improve school practices and at the same time, to improve the practitioners. The purpose of action research is to combine the research function with teachers' growth in such qualities as objectivity, skill in research process, habits of thinking, ability to work harmoniously with others, and professional spirit'.

Characteristics of Action Research: Cohen & Manion (1994, p.186) provides seven characteristics of action research. These are as follows-

1. Action research is situational: it is concerned with diagnosing a problem in a specific context and attempting to solve in that context,

2. Action research is usually (though not inevitably) collaborative: team of researchers and practitioners work together on a project

3. It is participatory : team members themselves take part directly   or

indirectly in implementing the research.

4. It is self-evaluative: modifications are continuously evaluated within the ongoing situation, the ultimate objective being to improve practice in some way or other

5. It is diagnostic and therapeutic: the use of action research in social sciences can be resolved in two stages: a diagnostic stage in which the problems are analyzed and the hypothesis developed; and second is therapeutic stage in which the hypotheses are tested by a consciously directed change experiment, preferably in a social life situation.

6. It is a self-initiative: in action research all the work related with research is initiated by the person who felt the problem or want to improve his/her efficiency.

7. It is flexible in its research design.

Importance of Action research: Action research has important role in improvement of teaching learning process. Hagevik, R., et al. (2012) examined the role of action research in promoting critical reflective thinking among twenty pre-service teachers engaged in a year-long middle level program. Data from collaborative discussions, final written documents, presentations, and follow-up

surveys revealed that conducting action research (a) engaged them in inquiry into their own practice, (b) was a means to reflect upon and determine ways to change their teaching practices, and (c) promoted critical reflection in a collaborative learning environment. Results underscore the importance of pre-service teachers critically reflecting to gain insights into teaching and student learning as they are engaged in action research. Although lacking the rigors of true scientific research, it is a means of providing a preferable alternative to the more subjective, impressionistic approach to problem-solving in the classroom (Chohen and Manion p. 188-189). The importance of action research in the field of education can be understood on the basis of following points-

1. It provides alternative ways of viewing and approaching educational problems.

2. It enables a teacher to solve their problem by their own efforts.

3. It provides an opportunity to introspect and develop an insight.

4. It begins with the goals of self-improvement and to search more efficient way to solve the problem.

5. It provides quick and active solution in a scientific way.

6. It promotes team work because it is a collaborative process in nature which involved other stakeholders and colleague to solve the problem.

7. Conduction of action research is helpful to develop scientific temperament among the teachers.

Attitude: Attitude is a psychological construct, it is a mental and emotional entity that inheres in, or characterizes a person. They are complex and an acquired state through experiences. It is an individual's predisposed state of mind regarding a value, situation, thought pattern or activity and it is precipitated through a responsive expression toward a person, place, thing, or event which in turn influences individual's thought and action. Attitude can be formed from a person's past and present experiences, acquired information and understanding.

According to Business Dictionary (2016) Attitude is defined as a predisposition or a tendency to respond positively or negatively towards a certain idea, object, person or situation. Attitude influences an individual's choice of action and responses to challenges, incentives, and rewards (together called stimuli). Four major components of attitude are (1) Affective: emotions or feelings. (2) Cognitive: belief or opinions held consciously. (3) Conative: inclination for action. (4) Evaluative: positive or negative response to stimuli.

Attitude towards action research: In the same manner attitude towards Action research can be defined as a predisposition or a tendency to respond positively or negatively towards action research.

Significance of the Study: Action research provides practitioners with new knowledge and understanding about how to improve educational practices or resolve significant problems in classrooms and schools (Mills, 2011; Hine, 2013). Additionally, action research facilitates teachers with the research skills and specialized knowledge required to positive change within classrooms, schools, and communities (Hine, 2013).

Therefore it is important to equip our primary teachers with research ability particularly in successful conduction of Action research. Along with teaching ability teachers are expected to achieve mastery in conduction of action research. National agenesis like NCERT and NCTE are emphasizing to integrate the action research practices in teacher training program. It is found that Positive attitude towards any work significantly motivate an individual to work enthusiastically. Therefore like any activity, Positive attitude towards action research is pre-requirement for conducting action research effectively. Attitude can be developed through good and real experiences among the group. Before organizing orientation or workshop to develop positive attitude towards action research it is important to know the present condition of about the level of Attitude

towards Action research of primary teachers of Gujarat and it is also desirable to know if any significant change in the level of Attitude towards Action research of primary teachers on the ground of their gender, academic stream, qualification, type of schools and levels of research experiences. To answer these questions this research was conducted.

Objectives of the study: This study was conducted to achieve following two objectives-

1. To know the level of Attitude towards Action research of Primary teachers.

2. To know the level of Attitude towards Action research of Primary teachers in relation with their gender, school type, qualification, teaching experience and levels of research experience (just name is known, Understood the process, have conducted frequently).

Hypothesis of the study

There were five null hypotheses in the study which are given follows-

1. There is no significant difference between the obtained mean scores of female and male primary teachers on ARA (Action Research Attitude) scale.

2. There is no significant difference between the obtained mean scores of UG (under graduate) and PG (post Graduate) primary teachers on ARA scale.

3. There is no significant difference between the obtained mean scores of primary teachers on ARA scale on the basis of their levels of research experience (just name is known, Understood the process, have conducted frequently)

Method of the study

Present study falls in the domain of descriptive study as it intends to investigate Attitude towards action research of primary teachers. Survey method was used in this study.

Population of the study

All primary teachers related with Guajarati medium schools of Ahmadabad, Gujarat, were identified as the population of the present study.

Sample of the study

Sample was randomly selected from the population. Cluster sampling technique used to select the sample. First, a list of all talukas of Ahmedabad district were prepared and two taluka place (Daskroi and Ahmedabad city) was randomly selected. After that total 24 primary schools (12 from

each talukas) were randomly selected from the list. All primary teachers of these 24 schools were selected as the sample of the study. Total 130 primary teachers were selected as the sample in the study.

Tool used in the study

A readymade tool was used to collect the data from the sample. This tool was Action Research Attitude Scale (ARAS). ARAS was constructed and validated by Dixit (2017) as a part of his GCERT funded project work. There were 37 items in the scale based on seven components named; 1) interest in the conduction of action research, 2) awareness towards the process of action research, 3) related activities, 4) effect on the quality of education, 5) Importance in teacher training program, 6) usefulness in the context of students learning.

Cronback Alpha and Split-half reliability was calculated with the help of NRTBV (Rathod,2001). The values of Cronback Alpha reliability and Split-half reliability were 0.89 and 0.93 respectively. Both reliability values were showed that ARAS was highly reliable to measure respondents' attitude towards action research. To establish the validity of the ARAS, content validity and Cliffs' consistency index 'C' of the scale were examined.

Data collection

Researcher/trained associate visited the randomly selected schools to administer the ARAS on primary teachers. The purpose of the study explained to the principals of the institutes and permission was taken for data collection. After explaining the purpose of the study, the primary teachers were requested to respond on the scale. Responded scales were collected and vote of thanks was given to respondents for their co-operation.

Data analysis and interpretation of result

Descriptive and inferential statistical techniques were used to analyze the data. Mean, S.D., skewness and kurtosis were calculated in descriptive statistics. The t-ratio and *F*-test was used to examine the hypotheses of the study. All calculations were performed with the help of Call and JASP computer programs.

Level of Attitude towards Action research (ARA)

The first objective of the study was to find out the level of attitude towards action research of primary teachers. To serve this purpose the ARAS was administered on the sample. The responses on a five point scale, agree, partially agree, cannot say anything, partially disagree and disagree, were assigned the value of 5, 4, 3, 2, and 1 respectively. There were 37 items in the scale and the maximum score for each

item was five. For each respondent it was possible to score 185 to 37 and 92.5 could be the average score for each secondary student teacher on ARAS. The actual frequency distribution of the total scores on ARAS of respondents is given in table – 1.

Table -2: Statistical details of the scores obtained by Primary-teachers on ARAS scale

Calculation	AAR TOTAL
Valid	130
Missing	0
Mean	125.1
Median	125.5
Mode	122.0
Std. Deviation	17.14
Skewness	-0.6419
Kurtosis	0.6310
Minimum	69.00
Maximum	161.0

The range of the obtained scores of Primary-teachers on ARAS was 92. The minimum and maximum scores obtained by Primary-teachers on ARAS were 69 and 161 respectively. The analysis of the data showed that the mean and SD value of ARAS scores of Primary-teachers was 17.14. The value of median and mode were 125.5 and 122 respectively. The value of mean, median and mode have nearly same value which shows that data is normally distributed. The value of skewness and kurtosis were -0.642 and 0.631 respectively. The value of skewness was showing slightly

negative skewness of the data. It means the frequency of high scorer primary-teachers are more than less score achiever in respect of mean score of the data on ARAS Scale. The value of kurtosis showed that the frequency of the data was leptokurtosis. This description can be seen in figure- 1 too.

AAR TOTAL

AAR=Attitude towards Action Research
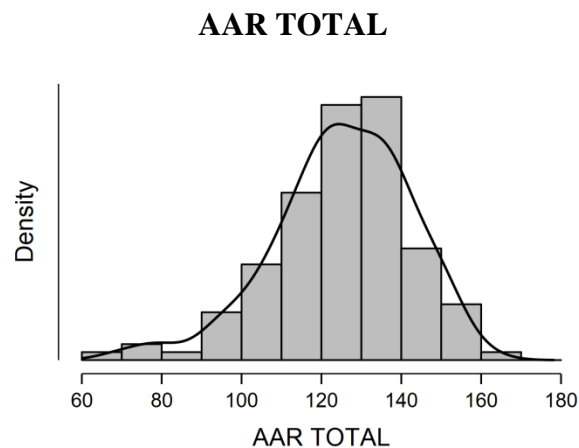
Figure-1 : Normal distribution of the obtained scores on ARAS of primary teachers

On the basis of 'Mean +/– SD.', respondents were divided in three categories named low Attitude group, Average Attitude group and High Attitude group respectively. The score range of categories and percentage of respondent can be seen in table-2.

Table-2: Category of primary teachers in the context of their Attitude towards Action research

Group	Range of score	Percentage of respondent
Low Attitude	107 or less	14.6%

group		
Moderate Attitude group	108 to 141	72.3%
High Attitude group	142 or above	13.1%

On the basis of table-2, it can be seen that total 72.3% primary teachers are showing average level of Attitude towards action research. Only 13.10% primary teachers are in the category of High Attitude group. On the basis of table-2 it is concluded that more than 85% primary teachers were showing moderate or below moderate level of Attitude towards action research.

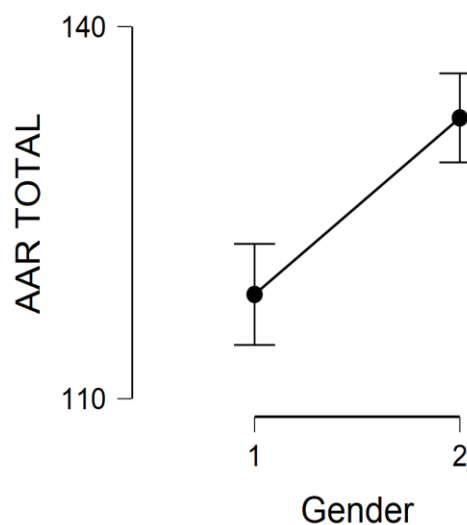## 2. Attitude towards Action research in the reference of gender

The second objective of the study was to know the level of attitude towards action research of primary teachers in the reference of their gender differences. To know this, H_{01} was tested. To test the hypotheses t-value was calculated. The detail regarding test is given in table -3.

Table – 2: Significance of the mean differences of the obtained scores of female and male primary teachers on ARAS

Variable	Gender	Number of Participants	Mean	S.D.	Df	t-value	Significance level
AAR	Female	69	118.4	16.96	128	5.18	Significant at 0.01
	Male	61	132.6	14.01			

Table-2 shows that there was a significant difference (t (128) = 5.18, p <0.01) between the obtained mean scores of female and male primary teachers. So Ho1 was rejected and it concluded that male ((No.=61, M=132.6; SD=14.01) primary teachers showing high positive attitude towards action research than female(No.=69, M=118.4; SD=16.96) primary teachers. This thing can be seen in figure-2.

1=Female, 2=Male

Figure-2: Level of AAR of female and male primary teachers.

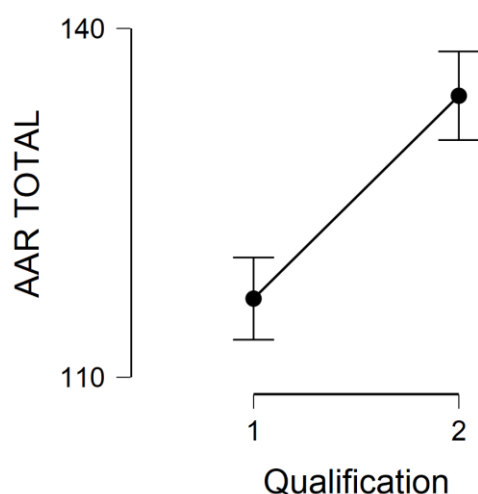## 3. Attitude towards Action research in the reference of academic qualification

To know the the level of attitude towards action research of primary teachers in the context of their qualification, H_{o2} was tested. To test the hypotheses, t-value was calculated. The detail regarding test is given in table -3.

Table – 3: Significance of the mean differences of the obtained scores of UG and PG Primary teachers on ARAS

Variable	Qualification	Number of Participants	Mean	S.D.	Degree of Freedom	t-ratio	Significance level
AAR	UG	68	116.8	14.60	128	6.71	Significant at 0.01
	PG	62	134.2	15.01			

Table-3 shows that there was a significant difference (t(128) = 6.71, p<0.01) between the obtained mean scores of UG and PG primary teachers. So, Ho2 was rejected and it concluded that PG (No.=62, M=134.2; SD=15.01) primary teachers were showing high positive attitude towards Action research than UG ((No.=68, M=1116.8; SD=14.60) primary teachers. This thing can be seen in figure-2.

Figure -4:   Level of AAR of UG and PG Primary teachers

4. Attitude towards Action research in the reference of their levels of research experience

Ho3 was tested to know the difference between attitude towards action research of primary teachers in the context of their different levels of action research experiences (1= just know the name and importance of action research, 2= Understand the process of Action research and 3= have conducted frequently action research). In the concern of testing the H_{03}, total number of the different levels of primary teachers, values of mean and SD of the obtained scores of different levels of research experience of primary teachers on ARA scale were calculated. Details are given in table-4.

Table-4: The mean and SD of the obtained scores of different streams' primary teachers on ARAS

Levels of Action Research Experience	Numbers of participants	Mean	SD
1	20	113.3	15.21
2	77	123.0	17.28
3	33	137.0	9.72

The table-4 shows that there were 20, 77 and 33 primary teachers related with level 1 (Just Know the name and importance of action research), level 2 (Understand the

process of Action research) and level 3 (have conducted frequently action research) respectively in the sample. The mean values of obtained scores on ARAS of level 1, 2, and 3 primary teachers were 113.3, 123 and 137 respectively. The values of SD of obtained scores on ARAS of level1, 2, and 3 primary teachers were 15.21, 17.28, and 9.72 respectively. To test the H_{o4}, F-ratio was calculated. Details about this calculation are given in table-5.

Table-5: Significance of the difference of mean values of different levels' Primary teachers' obtained scores on ARAS

Source of Variance	Sum of squares	Df	Mean squares	F-ratio	Significance level
Between the streams(S Sbgs)	7794	2	3896.8	16.43	significant at 0.01 level
Within the groups (SSwgs)	30113	127	237.1		

According to table-7 the value of F-ratio (F (2,127) =16.43, p<0.01) is showing a significant difference between attitude towards action research of having different levels of experience of action research of primary teachers. Therefore Ho4 was rejected and it was concluded that a meaningful difference was existed between having different levels of Action research experiences.

Post hoc test was conducted with the help f JASP open source programme to know the difference between having different levels of action research experience of primary teachers. The result of post hock test is given table-8.

Table-8: Post Hoc Comparisons - Experience of Research

		Mean Difference	SE	t	p Value
1	2	-9.663	3.865	2.500	0.036
	3	-23.680	4.364	5.427	< .001
2	3	-14.017	3.204	4.375	< .001

Table-8 shows that there were a significant difference (t=2.5; p< 0.05) between attitude towards action research of level 1(Just know the name and importance of action research) and Level 2 (Understand the process of Action research) primary teachers. Level 2 primary teachers were showing high positive attitude towards action research than level 1 primary teacher.

There were a significant difference (t=5.43; p< 0.01) between attitude towards action research of level 1(Just know the name and importance of action research) and level 3(have conducted frequently action research) primary teachers. Level 3 primary teachers were showing high positive attitude towards action research than level 1 primary teacher.

In the same there were a significant difference (t=4.38; p< 0.01) between attitude towards action research of level 2(Understand the process of Action research) and level 3(have conducted

frequently action research) primary teachers. Level 3 primary teachers were showing high positive attitude towards action research than level 1 primary teachers. This thing can be seen also in figure-5.
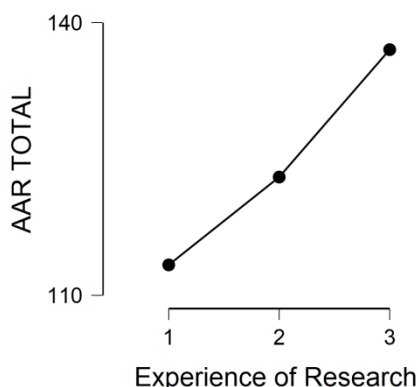
Note: 1= Know the name and importance of action research,
2= Understand the process of Action research,
3= have conducted frequently action research

Figure-5: Levels of Experience of Action research

Conclusion:

Study reveals that more than 85% of primary teachers were showing average or below average level of Attitude towards action research. Just 13.4% primary teachers were showing high level of Attitude towards action research. Therefore our primary teachers should be provided knowledge, successful action research conduction experience and motivation towards action research. Workshops and orientation Programmes must be organized at in-services and pre-service level to inculcate positive attitude towards action research among teachers. Male Primary teachers were showing significantly high attitude towards action research than female participants in

the same way PG primary teachers were showing high positive attitude towards Action research than UG primary teachers. So, in orientation and training programmes female and UG teachers should be provided special attention to make them more aware, knowledgeable, and having positive attitude towards conducting action research.

It was concluded that a meaningful difference was existed between having different levels of action research experiences. Primary teachers related with level 3 (have conducted frequently action research) have showed higher level of attitude towards action research than primary teachers related with level 2 and level 1 teachers. It shows that successful and frequent conduction of action research is beneficial to develop positive attitude towards any work. So, guidance, facility and motivation towards conduction of action research should be provided by school managements, government authorities. Teacher training institutes should pay attention towards this work and provide such type of environment and guidance in which our future teacher can learn the lesson of knowledge, skills and importance of action research.

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