International Journal of Psychosocial Rehabilitation, Vol. 25, Issue 03, 2021
ISSN: 1475-7192

CLASSROOM ACTION RESEARCH IMPLEMENTATION IN SECONDARY SCHOOLS.

Asrat Dagnew kelkay
Department of teacher education and curriculum studies, college of education and behavioral Science, Bahir dar University, Bahirdar, Ethiopia Postal Address: 79,
e-mail Address: asratboza@yahoo.com, Mobile Number: +251918802448, Fax Number: +251(058)220-59-32,Up to five keywords or phrases suitable for use in an index

Abstract: *The Purpose of this study was to assess classroom action research implementation at secondary schools. A Mixed research methods approach was employed. Six sample schools with 222 teachers were selected as a target population. Questionnaire, focused group discussion, interview and classroom observation were used as instruments of data collection. The data was collected randomly from 122 teachers, 6 schools principals, 3 supervisors and 3 district education experts. Cronbach Alpha values were 0.833 for action research implementation level, 0.927 role played by principals in facilitating action research, 0.866 for hindering factors and 0.875 for overall implementation of action research measure of reliability test. Both descriptive and inferential statistics analysis techniques were used to compute the data. The findings of the study indicated that secondary school teacher's implementation of action research was low. Role played by principals in facilitating action research in secondary school teachers' were not significantly a modeling role.*

Key Words: Action research, Classroom, Implementation, Secondary Schools

Introduction

The main purpose of action research in secondary schools is to provide experience for teachers with practical solution of classroom problems in the teaching-learning process. This has been started with the constructivist paradigm in social sciences, which views knowledge as being constructed rather than received. It recognizes the central role of the teacher both as agent of change in the classroom and as generator of contextual knowledge central to cooperative learning is the notion that learners play an active role in constructing their own meaning. Knowledge is not seen as fixed and existing independently outside of the learners but rather learning is a process of accommodation or adaptation on new experiences or issues (Jenlick and Kinnucan - Welsch 1999). cooperative is a learner centered educational theory which is a view of learning based on the belief that knowledge is not a thing that can be simply given by teacher . Students are actively engaged in doing something like group work, hands on, talk, project and so on (Piaget, 1977; Borich & Tombari, 1997; Colbrun, 2000). Elloit et al. (1999) recommended that a much heralded alternative is to change the focus of classroom from teacher dominated to student.

The implementation of classroom action research consists of planning, implementing, observing, and reflecting. The planning phase includes the preparation of the learning design, the format of the observation sheet for the actions of the researcher, learning media, and test students' centered using cooperative approach.

According to Carr and Kremmis (2005), action research is conceived as a spiral learning process undertaken by practitioners and professionals with the purpose of changing what they do, how they interact with others in their work situations and what meanings they assign both to their practices and their interactions. As a form of experiential learning, AR is a systematic process focused on the learner-researcher and his/her effort to create meaningful situational understandings of facts and instances, that will later inform his/her "epistemologies of practice". Kemmis and McTaggart (1982) claim that, in order to exploit its full emancipatory potential, action research should lead to a) improvement of practice, b) improvement of the understanding of this practice by its agents, and c) improvement of the context within which action research takes place. This improvement is conceived as an empowerment of the relationship between the teacher and his/her workplace (i.e. students, colleagues, curriculum, school facilities), and as a teacher's move from seeking "fixed learning objectives" to creating thinking students with self-initiated learning expectations. The present case study was an attempt to this direction, aiming to direct participants' attention beyond best pedagogical practices, to issues of genuinely informed PE professional action and knowledge.

Classroom action research is a method of finding out what works best in a own classroom so that teacher can improve student learning. There are many ways to improve knowledge about teaching. Many teachers practice personal reflection on teaching, others conduct formal empirical studies on teaching and learning. Classroom action research is more systematic than personal reflection but it is more informal and personal than formal educational research

Teachers' role as facilitator of students learning is to construct their own meaning and understanding by creating conducive learning environment. Teachers continually encourage positive relationship between them and students and role models as reflective practitioner of teaching learning process (Collis and Lacey 1996). It is cognizant of the situation that the employment of learner centered pedagogy is emphasized in Ethiopian education and training policy of 1994. The Policy statement refers frequently to the employment of learner centered approach, active learning and problem solving approach in different contexts. Constructivist approach to teaching is acknowledged by the transitional government of Ethiopia education and training policy (MOE, 1994) theoretically laid its foundation in social constructivism.

National and regional education personnel and literatures are advocating for teachers to facilitate students learning in the classroom that encourage them to be actively engaged in constructing understanding, and meaning making. Although action research has no long-standing story as traditional research particularly educational action research in classroom situations is thought to be a new idea, emerged recently. Mckernan (1991) stated that the origin of action research dates back to late ninetieth century as a reaction to "pure research" methods which failed to give practical solutions to what happens in the actual classroom teaching situation. According to him, the seeds of action research are to be found as early as the late nineteenth century in the science and educational movement and a variety of other social form initiative. It also grew out of the moves by progressive educators, such as John Dewey (1933), in the early part of the twentieth century to challenges of scientific research method current in the field of education. Despite these facts, O'Brien (1998) underlines, Lewin,(1946) a German Social and experimental Psychologist, is generally considered as the "father'' of action research. O'Brien adds that Lewin focuses on social problems through participative group processes for addressing conflict, crises, and changes in organizations which were not originally meant for addressing educational

problems .Besides, he had a keen interest to study human relationship scientifically and encourage people to improve their own enquires(McNiff, 2013).

Teaching and action research have direct relationships where action research transforms the teaching and learning experience and teaching provides a cost effective way of testing for implementation and applicability of action research. Teaching that is not informed by action research tends to be more routine than involving, creativity and reflection of the teacher. Thus, action research is one of the means by which teachers reflect on their work with their students in their schools.

Action research became known as a form of practical research that legitimated teachers' attempts to understand their work from their own point of view. Instead of learning about the disciplines and applying theory to themselves, teachers are encouraged to explore what they are doing and propose ways of improving it. In this way, the practical wisdom of teachers could be awarded greater status, as well as their professional standing widely accepted as a form of professional learning. It is the responsibility of teachers to hold themselves accountable for their potential influence in the learning of others. Though different scholars wrote their respective definitions regarding action research in education, their theme go in line with improving educational system .The investigator's definition coincides with what (Mills, 2000; Wallace, 1998; Hensen, 1996; McTaggart, 1997; Schmuck, 1997) had stated and it is a working definition for the whole part of this paper.

Action research is very important for improving teaching learning activities in developing and evaluating participants' own practice. It enables to improve the quality of education. It also realizes the complex social situations to bring the practicing classroom teacher into the research process as the most effective person to identify problems and to find out solution (McKernan, 1996). It also encourages and develops the skills of educators to become more reflective practitioners, more methodological problem solvers, and more thoughtful decision makers (Sparks & Simmons, 1989). Sagor (2000) believed that an important purpose for action research was "building the reflective practitioner". He explained that "when reflections on the findings from each day's work inform the next day's instruction, teachers cannot help to develop greater mastery of the art and science of teaching". This leads us to say that action research helps the teachers to be problem solvers.

Similarly, the current Ethiopian educational policy directives emphatically stressed the importance of action research at school and classroom levels. Teachers at all school levels are required to engage in action research activities. More specifically, apart from the teaching-learning process, teachers are expected to conduct action research to support and strengthen the teaching-learning process and examine the curriculum and give suggestions to its improvement. Another writer, Yalew (2000) has noted that teachers' by virtue of their important positions in the educational research have responsibility to improve the teaching-learning quality and quantity. Similarly, Yeshimebrat (2000) reported that teachers are taken as the first person that under take the research activities and utilize results to improve their teaching skills and experiences for enriching the teaching-learning process. Adding to this, Schmuch (2006) has remarked that action research offers a means for changing from current practices to better practices.

The trend in our country, concerning the involvement of teachers in research has been blamed many times for teachers' participation. For instance, in his research findings Assefa (2008) indicated that the status, challenges and opportunities of secondary school teachers and principals had shown that the participation of teachers and principals in action research was at its lowest level.

The teacher Action Research (AR) framework is a framework of this kind. With the purpose of providing increased understanding and new knowledge about teaching, action research is a cyclical process of learning, developing, acting and critically reflecting on concrete experience. By adopting a teacher-as-researcher stance (Casey, Dyson & Campbell, 2009), the action researcher works openly, collaboratively, and systematically with the purpose of eliciting new interpretations of his/her teaching while initiating change in practice. Through this process the teacher becomes more able to connect with his/her theories of learning, and test the validity of his/her assumptions, either emotional or practical.

Different studies show that the attention that teachers give for action research conducted in secondary schools was low in general. Moreover, the existing and observed realities indicate that teachers' participation in action research to gain essential benefits to solve teaching - learning problems in schools is insufficient. Practical observations and supervision works show that the current status of action research practice in secondary schools is very low. Thus, exploring the status, challenge and opportunities for further improvement through research to make secondary schools as a center of scientific knowledge is needed (Zeleke, 2014). But still teachers are not in a proper position to participate and apply action research. In line with the above scholar's perspectives, the researcher was an educational expert and observed the practical gap of secondary school teachers.

Therefore, the purpose of this study was to investigate implementation of action research in secondary schools and to forward possible suggestions that could improve action research implementation in the context of secondary schools.

Based on the above explanation, the study formulated the following basic research questions:

1. What is the current status of classroom action research implementation at secondary schools?
2. To what extent do principals have played a role to facilitating and supporting classroom action research implementation at secondary schools?
3. What are the factors that facilitate and/or hinder classroom action research implementation in secondary schools?

The overall purpose of this study is to assess classroom action research implementation in secondary schools. Accordingly, this study focused on the following specific objectives that indicate the direction of the research work was to explore the current status of classroom action research practice in secondary schools, to assess the principals' role in facilitating and supporting classroom action research practice in secondary schools and to uncover the factors that facilitate and/or hinder practices of classroom action research in secondary schools.

2. Materials and methods

The purpose of this study is to describe classroom action research implementation in secondary schools. To realize these objectives descriptive survey was undertaken. This method was used to gather data from large size population and it was important to assess the current situation of efforts made by secondary school teachers to implement classroom action research approach in classroom teaching-learning process. Within this framework, a mixed research methods was employed. It mainly employed concurrent research design.

2.1 Sources of data

The primary data sources of this study were teachers of secondary schools, principals of secondary school, supervisors and district education expert. They were selected as they are the main actors in the practice of school action research. Besides, action research paper documents were used as a secondary source to get data concerning status of action research practices in secondary schools.

2.2 Population, sample size and sampling techniques.

The target population of the study area consists of 488 teachers, 19 principals, 7 supervisors and 28 district education experts as sample population. So, in order to have the representative samples, the researcher selected samples by using multi-stage sampling techniques. First, random sampling (Lottery method) was used to select 3 (three) districts from the study area. From the sample district a total of 11 secondary schools; 6 schools were selected using simple random sampling (Lottery methods).

122 teachers were included as respondent samples of the study by using proportional sampling method based on their number of teachers. After the number of teachers are assigned for each target schools of the study, simple random sampling (lottery method) was used to provide equal chance for all teachers to be included in the sample.

Six principals and three supervisors of the sample secondary schools were included by comprehensive sampling. Three district education experts were taken purposely due to their responsibility. The total number of participants of school principals, supervisors and district educational experts were 12.

Table 1: Target population, sample size and sampling techniques at district level

No	Sampled Woredas	Number of school		population						Sample Size					
				Supervisors											
				Supervisors		**District experts**				**District education experts**			**Sampled school**		
		N	*%*	*N*	*%*	*NO*	*%*	*N*	*%*	***Sampling techniques***	*No*	*%*	***Sampling techniques***	*N*	*%*	***Sampling techniques***
1	***Ankesha***	***3***	***100***	***1***	***100***	***2***	***100***	***1***	***100***	***Comprehensive***	***1***	***50***	***Purposive Sampling***	***2***	***66.7***	simple random
2	***Enjibara***	***4***	***100***	***1***	***100***	***2***	***100***	***1***	***100***	***Sampling***	***1***	***50***		***2***	***50***	sampling(lottery method)
3	***Dangila***	***4***	***100***	***1***	***100***	***2***	***100***	***1***	***100***		***1***	***50***		***2***	***50***	
	Total	***11***	***100***	***3***	***100***	***6***	***100***	***3***	***100***		***3***	***50***		***6***	***54.5***	

Table 1, shows the target population, sample size of supervisors' and district education experts in the selected district of the study. The primary sources of data i.e. three supervisors, who were selected through comprehensive sampling and three district education experts who were selected purposefully

Table 2: ***Target population, sample size and sampling techniques at school level***

No	Sampled schools	School population					Sample Size							
		Teachers			Principal		Teachers					principal		
		M	*F*	*T*	*No*	*%*	*M*	*F*	*T*	*%*	*Sampling techniques*	*No*	*%*	*Sampling techniques*
1	**Azena Secondary School**	*29(91)*	*3 (9)*	*32(100)*	*1*	*100*	*16(55%)*	*2(55%)*	*18*	*55%*	proportional sampling method	*1*	*100*	*Comprehensive Sampling*
2	**Chara Secondary school**	*22(85)*	*4(15)*	*26(100)*	*1*	*100*	*12(55%)*	*2(55%)*	*14*	*55%*		*1*	*100*	
3	**Kosober Secondary schools**	*57(89)*	*7(11)*	*64(100)*	*1*	*100*	*31(55%)*	*4(55%)*	*35*	*55%*		*1*	*100*	
4	**Tilile Secondary schools**	*12(86)*	*2(14)*	*14(100)*	*1*	*100*	*7(55%)*	*1 (55%)*	*8*	*55%*		*1*	*100*	
5	**Dangila Secondary school**	*35(85)*	*6(15)*	*41(100)*	*1*	*100*	*19(55%)*	*3(55%)*	*22*	*55%*		*1*	*100*	
6	**Ankesha Secondary Schools**	*36(80)*	*9(20)*	*45(100)*	*1*	*100*	*20(55%)*	*5(55%)*	*25*	*55%*		*1*	*100*	
	Total	*190(86)*	*32(14)*	*222(100*	*6*	*100*	*105(55%)*	*17(55%)*	*122*	*55%*		*6*	*100*	

From the total of 222 teachers 32 (55%) teachers from Azena, 26(55%) from Chara, 64(55%) from Kosober,14(55%) from Tilile, 41(55%) from Dangila and 45(55%) from Ankesha secondary schools found in the six schools, 122 teachers were selected as samples of the study through proportional sampling method based on their number of teachers .

2.3 Data gathering instruments

Four data gathering instruments were used to obtain data pertinent to the study. These were questionnaire, interview, focus group discussion (FGD) and document analysis. The use of these instruments believed to be helpful since they facilitate triangulation of information from different sources

Table 3: Cronbach Alpha (α) Values of each Variable of the Instrument (questionnaire)

Variables	a	Item size	Number of respondents
Status of classroom action research practice	0.833	8	30
Roles of principals	0.927	9	30
Hindering factors	0.866	11	30
Total	0.875	28	30

Table 3, shows the reliability coefficients of the instrument (questionnaire) for each variable. According to McMilan and Schumacher (1984), a coefficient of 0.90 and above indicates a highly reliable instrument whereas coefficient ranging from 0.70 to 0.90 is acceptable for most instruments. Hence, the results indicated that the instrument was acceptable with reliability coefficient (**α**= 0.875) and at least acceptable for each variable. This implies that the instrument was reliable.

2.4 Method of data analysis

Both quantitative and qualitative data analysis techniques were employed. As stated by McMillan and Schumacher (1984), it is becoming increasingly popular for a combination of data analysis method to be employed to investigate or analyze different aspects of the same phenomena. Based on the type of instruments employed and the nature of the questions set, the data collected through questionnaires, were analyzed with the help of both descriptive and inferential statistics.

3. Results

3.1 Status of classroom action research practice in secondary schools

The first basic research question was to assess the current status of classroom action research practice in secondary schools. To do this, one sample t-test was computed and the results are presented in table 4 below. Besides to these qualitative data concerning status was narrated verbally.

Table -4: ***Summary statistics of one sample t-test for status of classroom action research practices in secondary schools***

Variable	Test Value(Mean)=3						
	N	Mean	SD	t	Df	Sig,(2tailed/value	Mean difference
Current Status of action research practice	122	2.32	0.36	-20.78	121	0.000*	-0.68

Keys: *SD =standard Deviation, (*) the mean is significantly different at α=0.05,* ***(n=122)*** *Degree of freedom (Df)= N-1 i.e., 121*

As designated in table 4, the results of one sample t-test represented that the total observed mean(2.32) score value of classroom teachers' participation of action research practice found to be significantly lower than the mean test value which was (3.00)and was also statistically significant at t =-20.78,df=121 and p-value <0.05 . In other word, there was difference between the two means. The result entails that the status of action research practices in secondary schools was low. In addition to this, the researcher had used other data gathering instruments to crosscheck the above findings. To start with**,** teacher respondents were provided with four open-ended items to write what they feel about the status of action research practices. Most of them had said that the practice level of educational action research practice in their schools is low like most of us did not carry out action research. But there are few respondents who wrote to the contrary that they are trying to conduct educational action research better and even who said their practice is high.

Besides this, semi-structured interviews were conducted with six principals, three supervisors and three district education experts to obtain in depth data. Probing questions were also asked to the interviewees to capture their reason and to handle the required information. Generally, the above data from teachers, principals, supervisors and district education experts implies that the status of classroom action research implementation in secondary schools was low.

3.2 Principal's role in encouraging classroom action research implementation

The second basic research question was to assess the role played by principals in facilitating action research in secondary school classroom teachers. It is quite important to ask what sorts of conditions are required to turn the school in to a center for action research. Data were gathered using teachers as respondents. Besides, interview, focus group discussion and document analysis were made to triangulate the finding results and teachers were provided with three interview questions and one focus group discussion questions to express what they feel about its roles and to recommend further how to make the practice better.

Table -5: A Summary statistics of one sample t-test for principals' role of facilitating and supporting classroom action research

Variable	Test Value(Mean) =3						
	N	Mean	SD	t	Df	Sig.(2tailed/p-value	Mean difference
Role played principals in facilitating and supporting action research practice	122	2.58	0.73	-6.293	121	0.000*	-0.415

Keys: *- SD =standard Deviation, (*) the mean is significantly different at α=0.05, Degree of freedom (Df)= N-1 i.e., 121*

One sample t-test was applied to examine whether there is statistically significant difference between expected mean (3.00) and the observed mean. As demonstrated in table 5, the results of one sample t-test indicated that the mean score value of principals' roles in facilitating classroom action research that enable to efficiently a modeling role was significantly lower than the mean test value which was (3.00). This result simply trait principals played roles in facilitating action research practice was not as such mementoes to facilitate effectively the activities. The total observed mean value 2.58 (at t=-6.29, df= 121 and $p<0.05$) also revealed that the role of principals in facilitating action research is less than the expected mean.

In addition to this, interview was provided for principals, supervisors and district education experts. Accordingly, six of the school principals, three cluster supervisors and three district educational experts addressed that the facilitating and supporting of physical education action research practice in their respective district and schools was low.

3.3 Factors affecting classroom action research implementation in secondary school

The third basic research question was to assess hindering factors to practice classroom action research in secondary schools. Besides, school factors are those factors within the administrative effort in facilitating and supporting the school community in conducting action research by making the school attractive environment. To attain this, one sample t-test was conducted and the results are presented in table 6 below.

Table -6: Summary statistics of one sample t-test for hindering factors to implement action research

Variable	Test Value(Mean) =3						
	N	Mean	SD	T	Df	Sig.(2tailed/p-value	Mean difference
Factors that facilitate/impede the Practice of action research	122	3.50	0.63	8.732	121	0.000*	0.497

Keys: *- SD = standard Deviation, (*) the mean is significantly different at α=0.05, Degree of freedom (Df)= N-1 i.e., 121*

One sample t-test was applied to examine whether there is statistically significant difference between expected mean (3.00) and the observed mean. As point out in Table 6, the result of one sample t-test as presented by the observed mean score of respondents (3.50) is greater than the expected mean value (3.00). These values are statistically significant at t (121) = 8.732, P-value <0.05. In addition, the mean difference of factors that facilitate/impede the practice of action research is positive and the observed mean greater than the expected mean .This implies that respondents of the sample schools implicit that factors that facilitate/impede the practice of action research is statistically significantly hinders secondary school teachers from practicing educational action research.

In addition to this, open-ended questionnaires and the interview that was taken place with the School principals, supervisors and district education office experts ensured the same result. They reported that schools have severe financial problems. Due to this, teachers are limited to do any activities pertaining to class works .They do not carry on additional activities that acquire expenses out of budget.

4. Discussion

4.1 Status of classroom action research implementation in secondary schools

The first purpose of this study was to assess the current status of classroom action research practice in secondary schools. One sample t-test revealed that the observed mean score of teacher respondents is less than the expected mean and was also statistically significant. This implies that, the status of classroom action research in the study area was low. It is believed that school practice could be improved and changed through a continuous investigation of a situation that requires improvement, seeking the means of improvement and acting accordingly. In education enterprise, action research is a remedy to this effect classroom teachers are the immediate practitioners at schools to inquire the routines that may hold back or facilitate the instructional process and the school environment .This could be made possible through action research.

The qualitative data from the interview, FGD, document analysis and open ended questionnaires shared that the status of action research practices was low. All of the interviewees and focused group discussant supported the above information. For instance, all of teachers from focused group discussion explained that secondary school teachers felt responsible to conduct action research. But, the effort made to practice it is very low.

Supporting this idea, the current education and training policy emphasized that teaching activity should be based on research work at all levels. Result of the current study was not in line with these scholars' works.

The findings indicate that the replies of respondents observed mean score for the current status of action research practice is less than the expected mean. This implies that, the current status of action research practice was low in secondary schools.

4.2 Principals' role in facilitating classroom action research implementation

The second purpose of this study was to assess principals' roles in facilitating practice of teachers' classroom action research. The current study portrayed that most principals in the zonal secondary schools were not playing a facilitating role being they are managers of the whole school activities and was also statistically significant.

The qualitative data from the interview, FGD, document analysis and open ended questionnaires shared that implies that principals and stakeholders were not playing their role of facilitating teachers to do action research.

According to Seyoum (1998), research is a function of the integration between both individuals and institutions. Therefore, facilitating and supporting teachers while they are conducting action research in different ways such as financial, material, technical and moral supports are the manifestations of good principals. In addition to this if there is a collaboration administrative structure in the education system it helps the culture of communication and cooperation among teachers, principals, students, staff members and parents. This type of school environment creates conditions to undertake action research. Principals are also responsible not only to create conducive environment for teachers researchers but the need to be also a role by conducting action research by themselves (Hanson, 2015). Though many scholars found that principals' role is crucial for facilitating teachers to do action research, the study portrayed that principals were not playing their supportive roles.

4.3 Factors that influence classroom teachers' implementation of action research

The current study portrayed the most factors, observed mean value also revealed that the factors are hindering factors being the respondents observed mean is greater than the expected mean and was also statistically significant.

Like any other educational issues in the teaching-learning process, it is also possible to think that status of action research practice may have shortcomings or constraints during its practice in the real conditions. Of these constraints, the researcher has selected eleven most serious possible factors affecting the practice of physical education action research in secondary schools. These factors are selected based on their agreement level in the responses of the teachers and data obtained during interview, focus group discussion. With respect to this problem, teacher respondents said that lack of adequate training, lack of reference materials, work load and shortage of time, and lack of incentives, lack of adequate research knowledge and lack of interest.

Based on the above data, one can easily conclude that overload in teaching and in other committee activities, lack of research facilities, limited research environment, and lack of financial support were the most serious impediments for most secondary school teachers to involve in action research. Similarly, these findings seem to be congruent with what Seyoum (1998) reported regarding constraints of research activities among secondary school teachers in Addis Ababa.

5. Conclusions

The findings of the study indicated that the status of action research practice in secondary schools was low. This is because, though the practice in classroom action research has shown some improvement, the facilitating and supporting tasks lag behind. Despite the fact that, there are some spots of results in solving the factors that hinder the action research practice, there are numerous obstacles confront schools not to move forward. Based on the results and findings of the study, the researcher concluded that unless situations are changed the voyage towards quality education is in question. The results of this study depicted that among the factors perceived as impediment were: absence of supportive research culture in the schools, lack of financial support (incentives, rewards), overload in teaching and in other committee activities, and lack of research facilities were identified by the teacher respondents as the most serious factors which discourage them from engaging in action research activities

References

Assefa Alemayehu (2008).A survey on secondary school Teachers and principals involvement in action research: Problems and opportunities *:* A Thesis Submitted in partial fulfillment of the requirement of degree of masters of arts ,unpublished, Bahir Dar University.

Borich, G. D., & Tombari, M. L. (1997). Educational psychology: A contemporary approach. Longman Publishing/Addison Wesley L.

Carr, W., & Kemmis, S. (2005). Staying critical. Educational action research, 13(3), 347-358.

Casey, A., Dyson, B., & Campbell, A. (2009). Action research in physical education: Focusing beyond myself through cooperative learning. Educational Action Research, 17(3), 407-423.

Colburn, A. (2000). Constructivism: Science education's "grand unifying theory". The Clearing House: A Journal of Educational Strategies, Issues and Ideas, 74(1), 9-12.

Collis M, and Lacey, P (1996). Interactive approach of teaching: a framework for Inset. London: David Fulton press.

Dewey, J. (1933). How We Think Are Statement of the Relation of Reflective Thinking to the Education Process. Chicago: Henry Regnery.

Elliott, S. N., KRATOCHWILL, T. R. L., & TRAVERS, J. F. (1999). Educational psychology: Effective teaching effective learning.

Hanson, J. M., Prusha, T., & Iverson, C. (2015). Principal, teacher, and counselor views of concurrent enrollment. New Directions for Community Colleges, 2015(169), 71-81.

Hensen, K. (1996). Teachers Researchers. In J. Sinkula (Ed.), *Handbook of Research on Teacher Education* (2nd ed.). New York: Macmillan.

Jenlink, P. M., & Kinnucan-Welsch, K. (1999). Learning Ways of Caring, Learning Ways of Knowing through Communities of Professional Development. *Journal for a Just and Caring Education, 5(4), 367-85.*

Kemmis, S., & McTaggart, R. (1982). The action research reader. Deakin, Australia: Deakin University Press.

Lewin, K. (1946). Action research and minority problems. *Journal of social issues,* 2(4), 34-46.

McKernan, J. (1996). *Curriculum action research: A handbook of methods and resources for the reflective practitioner*. Psychology Press.

McMillan, J. H., & Schumacher, S. (1984). *Research in education: A conceptual introduction*. Little, Brown.

McMillan, J., & Schumacher, S. (1984). *Research in Education: A Conceptual Introduction (5th ed.).* New York: Longman.

McNiff, J. (2013). *Action research: Principles and practice*. Routledge.

McTaggart,.R. (1997). Reading the collection. Participatory action research, 1-12.

Mills, G. E. (2000). *Action research: A guide for the teacher researcher*. Prentice-Hall, Inc., One Lake Street, Upper Saddle River, New Jersey 07458.

MOE, (1994). *Education and Training policy*, Addis Ababa (EMPDA).

MoE. (2002). *Education and Training Policy*. Addis Ababa: Ministry of Education

New York: Harper Collins.

O'Brien, R. (1998). An overview of the methodological approach of action research.

Patterson, L. (1993). *Teachers are researchers: Reflection and action*. Order Department, International Reading Association, 800 Barksdale Rd., PO Box 8139, Newark, DE 19714-8139 (Book No. 748; $18 members, $24 nonmembers).

Piaget, J. (1977). The development of thought: Equilibration of cognitive structures.(Trans A. Rosin). Viking.

Sagor, R. (2000). *Guiding School Improvement with Action Research*: *ASCD. Ascd.*

Schmuck, R. A. (2006). *Practical action research for change*. Corwin Press.

Sparks, G. M., & Simmons, J. (1989). *Inquiry-oriented staff development*: Using research as a source of tools, not rules. Staff development: A handbook of effective practices, 126-139.

Teferra, S. (1998). The Current Status of Research Activities Among Addis Ababa Senior High Schools Teachers. *The Ethiopian Journal of Education*, 18(1), 1-17

Wallace, M. J. (1998). Action research for language teachers. Cambridge University Press.

Yalew Endawoke (2000). *Research Activities, Problems and Future Directions: An Investigation of Elementary and Secondary School Teachers Involvement in Educational Research*: A Paper Presented on the National Workshop Organized by IER/AAU. IER: AAU

Yeshimeberat Mersha (2000). *Assessment of secondary school female teachers' Involvement in Research Activities in the Amhara Region.)In proceedings of National Conference on current issue of educational research in Ethiopia* A.A . AAU printing press (pp, 265-277).

Zeleke, B. (2014). The Status of Action Research Conducted in Government Secondary Schools of Addis Ababa. *Ethiopian Journal of Education and Sciences*, 10(1), 1-21.