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Practices and challenges of secondary high school teachers' engagement in doing action research: With Bahir Dar City (Capital city of Amhara regional state), Ethiopia.

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Abstract: The study aimed to examine high school teachers' engagement in doing action research in Bahir Dar City. The study tried to answer three leading ideas; the current status of high school teachers' engagement in conducting educational action research, the principals role in facilitating action research in schools, the challenges that hinder teachers' engagement in doing action research?. Descriptive survey research approach was employed. Questionnaire, interviews, document analysis were used as data sources. Questionnaires were categorized and coded. Statistical percentile tool was used for the questionnaires. It analyzed qualitatively the data secured through interview and documents. Questionnaires were adapted from literatures and distributed using hard copy to the respondents. It also used hard copy questions for interview. 44 teachers, 6 school principals, 3 cluster supervisors /educational experts and 6 CPD coordinators in each targeted school were respondents. The quantitative data revealed that only 29.5% of teachers were taking part in doing action research, the rest 70.45% teachers did not engage themselves in doing action research at school. To support principals, budget, lack of interest and motivation, lack of collaboration work among

teachers, knowledge and skill gaps, unclear criteria to undertake action research in schools were some factors that affects teachers work in action research.

Key words; engagement, educational action research, teaching _learning, class room practices, secondary high school

Introduction

The Ethiopian education training policy (ETP, 1994) issued nine overall strategies to meet the problem of Ethiopian education system; the curriculum, educational structure, educational measurement and development, educational support inputs, educational organization and management, educational inputs and educational finance regarding research and development.

It can improve quality of teaching when teachers use their own research experiences. The research for the practical societal impact as collaborative efforts in schools and with concerned stakeholders is a priority to for teaching _learning (MoE: 2006). Different educational activities like curriculum development, evaluation, teaching and research are now in Ethiopia, integrated at school level to improve students' achievement, (MoE 2017).

Various research methods could be employed for different educational problem. Action research has been found to be a tool used to help teachers and other educators uncover strategies to improve classroom practices ((Corey, 1953, Syoum, 1998, Sagor, 2004, Kovl, 2006). Teachers are agents to test a new instructional strategy, assess a new curriculum program, and evaluate an existing pedagogical method. Taking part in action research could be the momentum for positive change exemplified by teacher improvement, self-reflection, and overall learning that enhances classroom practices (Ferrance, 2000; Johnson & Button, 2005). Hence, action research can be considered as teacher professional development opportunity.

Action research is research, authentic and meaningful to the teacher-researcher. The teacher can conduct it in his/ her own classroom space. Action research helps teachers to pick up threads suggested in academic circles, and weave them in their own classroom (Ferrance, 2000). Teacher improvement and teacher change occur when teachers learn more about their teaching and instruction. The quality of teaching can be improved if teachers use their own research experiences (McBee, 2004). Action research is a study of a social situation with a

view of improving educational practice by group of participants through their practical action and with their own reflection up on the effect of actions (Remiss, 1983).

Action research can help to understand an immediate situation and change processes in school systems assist in practical problem solving and expand scientific knowledge, performed and enhance the competencies of the respective teachers. It targeted to solve practical problems of schools classrooms and changing and improving teaching_ learning process. Teachers should always involve in the change process either to solve their practical problems or to improve their teaching depending on time, place, and situation (Johnson, 2003, 2005). Action research involves a self reflective, systematic and critical approach to enquiry research community. Teachers could improve independent judgment and promotion through action research at schools.

Action research aimed to identify problematic situations or issues considered by the participants to the worthy of investigation in order to bring about informed changes in practice (Burns, 2005). It is a form of mental processing that demands an outrageous amount of mental investment from the learner in order to realize stable and deep learning with complicated, doubtful, or unstructured experiences/tasks (Dewey, 1933). It is a step spiral process of planning which involves reconnaissance; taking actions; and fact-finding about the results of the action, especially followed steps. First, ask a question; identify a problem; define an area of exploration, decide what data should be collected; how it should be collected and how often, collect and analyze data, describe how the findings can be used and applied, create an action plan based on what you found and the last step, report or share your findings and plan for action (Lewin, 1947, Lackney, 2000, Burns & Johnson 2005).

Teachers' engagement in research activities in schools would enable them to become a participant in planning, improve an educational system and to have multiple effort on their students' academic achievement. If someone operated action research, it has a potential value to enhance professional development to improve students' learning.

The education sector strategies (ESDPs) in Ethiopia stressed the need to integrate and coordinate teaching with action research and development is vital. Carry out action research is a professional requirement for all teachers at all levels to solve the teaching learning problem (MoE,, 2010, 2015, 2018). School principals create conducive school environment for teachers to enable them engage in action research (MOE 2002, ICDR 2004).

However, clear provision policy is set up for the recent development; it is not guarantee for implementing at school level. There is no empirical evidence and action research documentation found that shows high schools teachers' engagement in action research work to solve the practical school problems in Bahir Dar City. Regional and District/ Zonal educational review documents, research symposiums, field supervisions, and workshops showed that involvement of high school teachers in doing action research was unsatisfactory. This required diagnostic survey to the extent of teachers' engagement in action research work. There for, the study aimed to assess high school teachers' engagement in conducting action research in Bahir Dar city.

Methods and Design

Design of the study: Descriptive survey approach was employed. Survey study is confined to gather information concerning the existing status of institution, group or people. Comparison of existing status with the established standard is a means of improving the present and future existing status. Descriptive survey approach in research is more appropriate to gather data which has broad size (Syoum & Yalew,1989). Descriptive survey design approach might be also best to show the major barriers hindering teachers' engagement in action research. This study focused on diagnosing high school teachers' engagement in action research in Bahir Dar city.

Data Sources and instruments

The primary sources were collected from teachers, school principals, and educational experts/supervisors. Respondents are in front lines of any educational activities at the ground level so that matured data might be gathered. The secondary data were got from documents like educational reports, schools/ district research symposiums, workshops. Questionnaires, interviews, document analysis were used as data collection instruments. Closed ended and open-ended questionnaires, semi-structured interviews were used to collect data from primary sources. The questionnaire and interview were adapted based on concepts from review literatures and developed to maximize the possibility of finding answers to the basic research questions.

Relevant literature was assessed to get information in relation to the problem. The questionnaire which was prepared in English was given to individuals who were efficient in

English to evaluate the most of the questionnaires. Following the Comments, change was made to improve the accuracy of grammar and concepts. The questionnaires were distributed using hard copy to the respondents and interview was arranged to education experts/supervisors and face to face interview was held. In addition, documents like minutes, research symposiums documents were analyzed.

Sample size and sampling technique

The targeted populations in the study were high school teachers in Bahir Dar City. There are 11 high schools. Six (55%) of the total were selected using simple random sampling (lottery system). According to Bahir Dar city Education Department statistical data in 2019 /2020, there were 687 teachers, 475 were male 212 female. In the targeted schools, 369 were male and 158 were female, with 527 teachers in the targeted schools. 52 (10.2%) of the total of population were included using random sampling technique. It made this to give teachers to have equal chance of being included in the sample study.

Table 1: The total	population of tea	achers (N) and the s	sample size (n) o	of the study in each
target school.	(\cap)	-	-	
		and the second se		

Targeted high	Total population of the study (N)			Sample size of the study (n)		
schools	Male	Female	Total	male	female	total
Tana Haik	81	37	118	8	4	12
Ghion	86	40	126	9	4	13
Fasilo	65	33	98	6	3	9
Bahir Dar	66	21	90	6	2	8
preparartory						
Meshenti	37	14	51	4	1	5
Ethio- Japan	34	13	47	4	1	5
Total	369	158	527	37	15	52

Six principals in the targeted high school were included in the study. Continuous professional development (CPD) co-coordinators in the target schools were also taken as respondent since they accelerated and support teachers to engage in doing action research as professional development. Cluster supervisors were taken as an educational expert since they were representatives of the City Education Department. Supervisors are responsible for technical and administrative support in school activities as the whole.

Data Analysis technique

Both qualitative and quantitative (Mixed approach) analysis methods were used. Percentiles tool was employed for the quantitative data. Before analyzing the data, information was categorized using coding. Interviews and related documents were analyzed qualitatively.

Data presentation and analysis

Questionnaire was distributed to 52 teachers, 6 school principals 6 CPD coordinators. 44 (84.6%) teachers returned the questionnaires by fulfilling the requirements. All Principals and CPD coordinators returned the questionnaire. The analysis was done based on respondents' response. In addition, the 3 cluster supervisors/educational experts were involved in face-to-face interview. The interview was undertaken. Data gathered was organized using tables followed by discussion. Matured questionnaires were organized and treated together. Interview respondents were used to substantiate the data gather through the questionnaire. Document analysis was targeted looking through action research activities (research symposiums) educational reports in high school, Zonal /Districts.

Respondents		Sex			Educational			rience/ serv	ice year
		#	%		#	%		#	%
Teachers							Less than	2	4.5 %
	М	34	77.27 %	Degree	35	79.54 %	10		
							10-15	7	15.9 %
	F	10	22.72 %	Master	9	20.45 %	>15	35	79.5 %
	Total	44	99.99 %		44	99.99 %		44	100 %
Principals	М	6	100 %	Degree	-	60 %	10-15	-	-
	F	-	-	Master	6	100 %	>15	6	100 %
	Total	6	100 %		6	100 %		5	100 %
Supervisors/Educati	М	3	100 %	Degree	-	-	10-15	-	-
onal experts	F	-	-	Master	3	100 %	>15	3	100 %
	Total	3	100 %		3	100 %		3	100 %
CPD coordinators.	М	6	100 %	Degree	6	100 %	10-15	1	20 %
	F	-	-	Master	-	-	>15	4	80 %
	Total	6	100 %		6	100 %		5	100 %

Table 2: Respondents characteristics by their sex, career status, service year.

Table 2 focused on addressing respondents' characteristics based on sex, educational level, and service year. From the table, it is showed that 83.4% were male while 16.6% were female. In terms of educational qualification, first degree holders were 69.4% and 30.6% were masters' degree holders. 80.7% of the respondents had over 15 years' service experiences, 15.7% had 10-15 years' service experiences and the rest, 3.5% 10 years' service experiences. The data showed that most respondents were more experienced in teaching.

Teachers' engagement in action research

Action Research is a formative study of progress practiced by teachers in schools. Action research is a spiral process that includes problem investigation, taking action and fact-finding about the result of action. This could provide teachers to improve classroom practices. Teachers were asked to provide information regarding their involvement in action research at schools.

Items		Response	
		#	%
Carry out action research in teaching career at school to improve	Yes	13	29.5 %
professional knowledge and skill?	No	31	70.45 %
Plan to carry out action research in school to solve practical problems	Yes	29	65.9 %
in the future ?	No	9	20.45 %
How many action research works do teachers have ?	One	1	25.00 %
	Two	2	4.5 %
	Three	-	-
	Four	-	-
	More than four	-	-

Table 3: Teachers' response in engagements in doing action research.	Table 3:	Teachers'	response in	engagements in	n doing action	n research.
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In table three, only 29.54% teachers involved in doing action research, but 70.45% of teachers did not conduct action research at schools. Interview with supervisors/ experts and openended questionnaires with school principals and CPD coordinators revealed that involving of teachers in doing action research was unsatisfactory in every year at schools. For example, in document analysis, in Bahir Dar preparatory school cluster schools (including 'Tis Abay Fall high school with 54 teachers), only 2 (1.3%) teachers did action research in the total of 144 teachers in 2018/2019. Only 3 (2.3%) teachers engaged in doing action research in the total of 126 teachers in Ghion high school, and I did not conduct any action research in other targeted high schools in the same year.

The interviewees suggested challenges behind unsatisfactory engagement of teachers in doing action research at school level:

"there is no motivational and reward program from schools and other officials, teachers are content over loaded, carelessness of teachers, some teachers are change resistant, lack of collaboration with principals, supervisors and within teachers themselves, training gaps (knowledge and skill), a few teachers in schools may assume we know all, so that no need of doing action research (attitude problem), inconvenient school culture, lack of system attention".

Teachers were also asked about their plan to carry out action research. 65.90% of teachers responded they had planned to conduct action research to improve their professional content knowledge (PCK). While 34.09% teachers responded they didn't have a plan or didn't want to do action research in the future. Teachers were asked to reflect in open-ended questionnaires the topics/issue they want to conduct action research and the challenges/ factors that hinders to do action research at schools.

Some of the topics/issues they responded were:-

- Students disciplinary problems and solutions to cope the problems
- How can I improve my students learning motivation in English language classes
- Students learning interest in any subject in their class room.
- The implementation of active learning and continuous assessment

In open ended questionnaires, teachers responded the challenges that hinder to do action research at schools were:-

- budget constraints
- Engaged in other school activities, (time constraint),
- I don't have interest
- Lack of skill /knowledge

In table three, 25% and 45% teachers conducted action research ones and twice respectively. It was mostly for promotion and other private uses not for their students learning..

Teachers' training in educational research and action research

Training educational research in general and action research in particular is helpful to improve class room practices. Training is presumed an input to improve pedagogical content knowledge (PCK) and virtues. The information was collected trough questionnaire about teachers' training in educational/ action research.

Table 4:	Response	about training o	of educational	research
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Items	Responses						
		yes		No			
	#	%	#	%			
Have you ever attended any educational research courses ?	37	84.09 %	7	15.9 %			
Have you ever participated in education seminar workshop or in service	24	54.45%	20	45.45 %			
trainings to update action research skill ?							
read different educational books, journals and other had outs of action	26	59.09 %	18	40.90 %			
research ?							
usefulness of the research courses to equip to do action research ?	Very low	1	-	-			
	Low		4	9.09 %			
	medium		23	52.27 %			
	High		14	31.8 %			
	Very high		3	6.8 %			

In table four, 84.09% of teachers attended any educational research courses, and 54.54% participated seminars, workshops, in-service training to update knowledge, skill in action research. In addition, 59.09% respondents read educational journals, books and handouts of educational research, but the rest 40.90% respondents did not. Respondents were also asked to rate the extents to which research courses were helpful in equipping teachers to do action research. Regarding this, 9 09% rated low, 52.27% rated medium, 31.8% rated high and 6.8% very high. The majority of the respondents rated medium.

The figure indicated that there was no deep confidence developed as the result of the training provided. In open-ended questionnaires, teachers were asked to evaluate the courses provided relating to action research. Some of the points they reflected were:-

- The course/s was more of theoretical and lacks practical works
- We were not motivated to do action research during our courses
- We study courses for grading (to pass course examination)

Table 5: Challenges doing action research at schools;

Doing action research needs inputs like, reference materials, budget, laboratory equipments, support and recognition or motivation etc. However, there are prevailing problems that hinder teachers' participation in doing action research at school level

Items		ngly disagree	D	isagree (2)	A	Agree (3)	Strongly agree (4)		
	(1)								
((,)	#	%	#	%	#	%	#	%	
Update reference in library to conduce action research	17	38.63 %	17	38.63 %	8	18.18 %	2	4.54 %	
Budget allocation for research activities is adequate	17	38.63 %	19	43.18 %	5	11.36 %	3	6.81 %	
The school atmosphere is inviting to conduct action research	5	11.36 %	10	22.72 %	18	40.9 %	11	25.00 %	
Moral and material incentives from higher officials to conduct action research	23	52.27 %	13	29.54 %	6	13.63%	2	4.54 %	
Studying educational problems considered as the day to day works of teachers	4	9.09 %	8	18.18 %	18	40.09 %	13	29.54 %	
Interest in the field of research hinders to do action research	4	9.09 %	11	25.00 %	19	43.18 %	10	22.72 %	
The culture of research work is not developed in the school	1	2.27 %	11	25.00 %	19	43.18 %	13	29.54 %	
Knowledge /skills in doing action research hinders to do action research	4	9.09 %	10	22.72 %	18	40.90 %	12	27.27 %	
School principals facilitate research action	5	11.36 %	20	45.45 %	15	34.09 %	4	9.09 %	
Lack of workshop on the field research in schools education office hindered teachers to undergo action research	5	11.36 %	4	9.09 %	24	54.54 %	10	22.72 %	

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In table five, 77.26% respondents rated to absence of workshops on the field of research at schools, in education offices hindered teachers to undergo action research. The rest responded that the factor is not a prevalent factor to do action research in their schools. Respondents were also asked the extent to which lack of knowledge or skill hindered teachers to involve in doing action research in their schools. For this instance, 68.19% of teachers rated that lack of knowledge/ skill hindered them to do action research. In open-ended items, principals and school CPD coordinators reflected that lack of knowledge / skill is the most prevailing problem for teachers in doing action research at schools. This creates a challenge to create a conducive school environment. In addition, 65% of respondents responded, lack of interest in research to do action research has an impact in conducting action research at schools. In open-ended questionnaires and interview, respondents reflected that lack of commitment and interest were the most prevailing factors for teachers to conduct action research for better classroom practices in their schools. Scholars suggested teachers should develop positive attitude towards action research and involved in educational research. (Cohen & Mnnion, 1995, Syoum,1998).

In the same way, 72.72% and 65.9% of teachers responded that school culture and atmosphere were not inviting to conduct action research. 69.63% of teachers considered studying educational problems at schools is not a day-to-day work of teachers. In an interview, supervisors /educational experts reflected that action research work at schools is not developed and sensed by the school communities. Teachers are distanced themselves in doing action research on the practical school based problems.

Availability of referenced materials in school libraries to conduct action research is vital. The data indicated that 77.26% reported that inadequate updated reference materials in school libraries could hinder in doing action research. Educational scholars notified that inadequacy of school faculties like library documentation, limitation of technology, has an impact on research works (Shatter & Ayenew, 2010). Enough budgets should be also considered as critical for action research processes. For this, 81.8% teachers responded that there were not enough budgets to do action research at schools. 56.8% teachers also responded that school principals do not facilitate research activities. In an interview, cluster supervisors/ educational experts noticed that lack of budget and poor motivation of principals to research activities hindered teachers from conducting action research.

Table 6:- Principals role in action research work in schools;

School principals are actors to create conducive school environment to make schools research centre. Principals are also responsible to motivate, acknowledge and respect the intellectual heal of teachers.

Items	Response						
	Low	Average	High	Very-high			
	(1)	(2)	(3)	(4)			
Recognize the importance action research	17(38.63%)	13(29.54%)	7(15.9 %)	6(13.63%)			
Provide directions for researchers to conduct action research in group/ individual	17(38.63%)	13(29.54%)	8(18.18%)	6(13.63)			
Allocate budget to material support in Libraries for reference	16(36.36)	20(45.45)	4(9.09%)	3(6.81%)			
Allocate budget enable teachers to conduct action research	22(50%)	10 (22.72)	8(18.18%)	4(9.09)			
Organize a committee and set clear criteria to undertake action research	25(56.81%)	15(34.09)	9(20.45%)	5(11.36)			

Table six above depicted that, 68.17% respondents said that principals did not recognize the importance of action research. They poorly provide directions for teachers to conduct action research in group or individually at school level. 81.81% teachers also recognized that principals did not give special attention to updated library references. In addition, 72.72% respondents said that budget is not be given attention for action research work to avail immediate problem at schools.

Intervention and possible directions for teachers to engage in action research work.

This survey study was also attempted to gather suggestions from the participants for possible interventions to the challenges that effect school teachers to do action research. School principals, CPD Coordinators in open-ended questionnaires and cluster supervisors/Educational expertise were interviewed to suggest the possible interventions. Both commonly suggest the following possible interventions for the challenges:-

- Set frequent workshops, seminars, research symposium in schools, clusters, city administrative level / zonal and regional level.etc.
- provide appropriate training courses for teachers in action research
- Providing appropriate and adequate materials/reference in school libraries

- Motivate/ encourage teachers striving to carry out action research
- Assist teachers during problem identification in their school.
- create collaborative teacher learning /appropriate school-based professional development
- Allocate adequate budge for the appropriate school based professional development

Conclusion and implication

Conclusion: Education Sector Strategies (ESDPs) in Ethiopia gave emphasis to research in curriculum development and implementation, instructional methodologies and assessment techniques. At all educational levels, teachers are expected to conduct action research to solve the practical educational problems and so far for their professional development (ESDP–V, 2015). Action research could provide valuable information on decision making for school communities in schools, Woreda , Zonal, Regional and Country level.

From the survey research finding, the majority of teachers attended research methodology courses, but only 29.5% of teachers were participating in doing action research. The rest, 70.45% were not engaged themselves in doing action research in their schools. Less effort was exerted by teachers in doing action research on practical school problems. It seemed doing action research is aborted. This was because budget problem, lack of interest and motivation , lack of knowledge and skill, absence of referenced materials in schools libraries, lack of collaboration in schools, work overload of teachers and shortage of time, lack of incentives, self commitment and school leadership problems. It is possible to conclude that there is an inverse relationship between teaching and action research practices in high schools in Bahir Dar city.

Implication: Action research has an impact of school improvement. Adequate training, seminars and workshops, or open discussion forums for school improvement through action research should support teachers. Efforts to improve professional knowledge and skill for the teaching _ learning process through action research are an important tool. Action research is part of the teaching _ learning process. Teachers are actors for school improving situation through action research. Action research courses should be examined in line with principles and the practicality of action research. It could develop knowledge and skill in doing action research through collaborative work within teachers. Experience sharing between schools and

researchers, motivating teachers using different incentives, could foster action research works at schools.

Doing action research has to be part and parcel of teaching activities. It is implied that action research time is part of teaching time. Action research should continue to pay students' learning problem. It should encourage action research towards improvement of student learning at schools. School leadership, school community and others should pay attention to action research work to change school situation. This is possible through mobilizing the local community and forming a partnership with government and non- governmental organizations. Challenges that encounter in doing action research are diverse. This may begin with the perception of and practices of action research. The problems require coordinated activity in the schools, districts' regional education bureau and ministry of education. The coordination needs investigating means to develop action research needs high internal driven interest and motivation. Individual teachers should strive themselves to improve their research skills through self effort and commitment to enable themselves high professional in teaching_learning.

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