Quality and Implementation of Research Studies in Tigray Region Colleges of Teacher Education

Teklegerima Zenawi

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This is to certify that the thesis prepared by Teklegerima Zenawi, entitled: Quality and Implementation of Research Studies in Tigray Region Colleges of Teacher Education and submitted in partial fulfillment of the requirements for the Degree of Master of Arts (Master of Educational Research and Development) complies with the regulations of the university and meets the accepted standards with respect to originality and quality.

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Graduate Program Coordinator

Abstract

The main purpose of this study is to investigate the quality and implementation of research in solving educational problems at Abyi Adi and Adwa colleges of teacher education. A total of 156 instructors participated in the study from the two colleges. Both quantitative and qualitative data were collected from the instructors, researchers, deans and vice deans, department heads, research and publication offices, staff development units, higher diploma leaders of the colleges and regional education bureau offices using questionnaires, interviews, focus group discussion and document analysis. The data obtained through the questionnaires were analyzed using correlation, descriptive statistics, independent t-test, paired t-test, one way ANOVA and multiple regressions. While the data obtained through interview, focus group discussion and document analysis were analyzed using themes, categories, patterns and matrix. The quantitative results of this study portrayed the relationship between instructors' work experience and research practice was very low. This study also showed that instructors' teaching experiences, research training and qualifications have little or no effect in research practice. The participants at the research conference were neither perceived nor satisfied by the overall the quality of the research presented and practiced at the colleges. Also they did not perceive and implement the research findings and recommendations. Therefore, the research studies have little values in solving educational problems. The qualitative results shared that researchers did not give attention to quality. As a result, the research studies were poor in quality and performance. Likewise, there was a gap between research studies and its implementations. The research stakeholders did not give attention to the implementation of research findings/recommendations. Moreover, research users did not benefit from the research studies. On the basis of the findings of the study, the overall the research studies and the proceedings of educational research conference had little value in solving educational problems as they were of poor quality.

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Acronyms

AACTE	Abyi Adi College of Teacher Education
ACR	Action Research
ACTE	Adwa College of Teacher Education
ANOVA	Analysis Of Variance
APR	Applied Research
CEREBO	Curriculum Expert of Regional Education Bureau Office
ETP	Education and Training Policy
FGD	Focus Group Discussion
HDL	Higher Diploma Leader
HDP	Higher Diploma Program
HEIs	Higher Education Institutions
HLIs	Higher Learning Institutions
MoE	Ministry of Education
NCDDR	National Center for the Dissemination of Disability Research
REBO	Regional Education Bureau Office
RPO	Research and Publication Office
SMART	Specific Measurable Achievable Relevant and Time bounded
SPSS	Statistical Package for Social Scientists
SDUs	Staff Development Units
TESO	Teacher Education System Overhaul
TGE	Transitional Government of Ethiopia
USAID	United States Agency for International Development

Operational Definitions of Terms

Implementation: Putting into practice the recommendations/findings of the research studies by integrating research stakeholders so as to solve educational problems and benefit research users.

Quality: the status of the research studies practice and its values in education.

1. Introduction

This chapter deals with the general introduction part of the paper which focuses on the concept and base of the research thesis. It comprises the background, statement of the problem, objectives, research questions, significant, delimitation, limitation, operational definition and organization of the study.

1.1 Background of the Study

Education and training policy (TGE, 1994) of Ethiopia claimed that it should be appropriately integrated with the development of focusing research to make education, training and research effective. According to Dessalegn (2000), educational research and development is an industry based development model in which the findings of research are used to design new products and procedures. Educational research is asserted to investigate a problem, theory and idea in the HEIs (MoE, 2008). Abiy, Alemayehu, Daniel, Melese and Yilma (2009) stated that the purpose of the research is solving problem practically.

Education and training policy (TGE, 1994) of Ethiopia stipulated the nexus between education, training, research and development. Educational research is characterized by the research questions they pose and answer subsequently (Solomon, 2004). Currently, action research training is introduced in the HEIs as part of HDP (MoE, 2008). However, (Firdissa, 2007) found that teachers and research staffs were physically and visually separated. The education and training policy (TGE, 1994) of Ethiopia also claimed that creating a mechanism for an integrated educational system and educational research among the various levels of education. Promoting the quality of education through research is the main purpose of educational research conference.

USAID (2008) argued that the ETP of Ethiopia lacks overall quality, consistency and comprehensiveness. To have a practical influences, conclusions from research must be realistic and achievable. To avoid what policy makers find most frustrating and least useful are, at one extreme a refusal to venture out from behind the safety of the data and methodology to draw out any policy implications at all (Ali, Bywaters & Lether, 2007). The major deficits in the quality of education were lack of research in the formulation of the policy reforms, less consideration for system maintenance, lack of incorporation of the interests of major political groups and cost

consideration (USAID, 2008). The education demands of buildings bridges between teaching and research which calls for the need to empower teachers to extend their roles beyond merely deliverance of knowledge by being vigilant to practice. Research findings can bring change in policy and its practice and people's lives (Ali et al., 2007). Besley (2009) stated that the important for having research-informed teaching may result in raising the status of education vis-a- vis other disciplines. The relationship between teacher-colleges that have been expected to be in research activity particularly, in educational research is at low level. Education and training policy (TGE, 1994) of Ethiopia declared that research of practical societal impact should be given priority, and the necessary steps are also taken to facilitate the coordinated efforts of all those concerned issues. As Lewin cited in MoE (2008), action research is a powerful tool for change and improvement of education at the local level.

Solomon (2006) suggested that for anybody who might want to undertake study in the area of educational implementation in Ethiopia is important to examine on the ETP and its related documents. As Firdissa (2007), research in the field of language teacher education also shows that there has been unusual relationship between research and its practice. As a result, researchers criticize that teachers ignore research findings. Teachers, in turn, complain that TEIs- based researchers do not acknowledge the realities of classroom teaching.

1.2 Statement of the Problem

Education and training policy (TGE, 1994) of Ethiopia asserted that research and development was one of the nine strategies proposed to meet the challenges of education system of the country. Action research was also introduced to pre-service and in-service teacher training as part of TESO. According to Dessalegn (2000), educational research and development has great promise for improving education. Abiy et al. (2009) stated that research is undertaken to solve an immediate practical problem.

Temechegn (2001) argues that the various international and local research works reviewed and forwarded their suggestions to alleviate the problems in Ethiopia. There is much relationship among all stakeholders in the research process that continues into implementation (Ali et al., 2007). Researchers must hear what communities and society identify as their problems and then the institutions should place their expertise to find solutions of the problems (Firdissa, 2007). Ali

et al. (2007) argue that the implementation of research findings is the challenges to practice in the field of education.

According to Ali et al. (2007), recommendations represent the ideal but take not account whatever of issues of cost, achievability, the interaction with other priorities and possible intended consequences, conclusions which are just sufficiently backed up by the evidence. Morazan (2010) asserted that bringing together researchers and practitioners that are actively engaged in the implementation is useful based on the program. Ali et al. (2007) also asserted that one way of applying research findings is through their application in practice which necessitates the continuation of analysis way beyond the traditional recommendations stages of research. Therefore, recommendation and suggestion for research should be relevant and practical (Tayie, 2005). The researcher-stakeholders relationship is the two way process involving a change of perspectives for many policy makers, managers, practitioners on the one hand and for many researchers on the other hand (Ali et al., 2007).

According to Koshy (2005), the indicators of quality research are: validity, reliability and triangulation. Sagor (1992) agreed that researchers have traditionally been concerned with validity, reliability, and generalization. Generalization concerns the applicability of findings to settings and different contexts from the one in which they were originally obtained. For DeMatteo, Festinger and Marczyk (2005), validity concerns the generalization of the results and the accuracy of conclusions and interpretations drawn from the results of a study. While Ali et al. (2007) argued that not only the application of findings is improved by a process of testing, but the validity of the 'results' themselves will also be enhanced if researchers can see what happens when their evidence is turned into action. On the other hand, applicability of the results, relevance, and significance of the research problems and urgency of data needed some of the criteria while conducting research (Abiy et al., 2009).

Blase, Fixsen, Friedman, Noam and Wallace (2005) stated that the process of implementation requires putting new operating procedures in place to conduct training workshops, provide supervision, and change information reporting forms. For example, Lether led a series of focusing on teenage pregnancy and young parenthood, and her collogues on these projects have become active members of local teenage. Through training with young parents, they have been

directly involved in translating research findings into practice. Others developed drama by working with funding partners to put findings into action (Ali et al., 2007). The actual implementation concerns to put procedures and processes in place in the identified functional components of change are used with good effect for consumers (Blase et al., 2005).

In Tigray region, there are two colleges of teacher education: Abyi Adi and Adwa colleges. The colleges call the researchers to conduct and present their research studies at the annual research conference. This educational research conference is intended to find out solutions of the educational problems and to promote quality of education. The annual national and regional conferences took place for the seventh and fourth at Abyi Adi and Adwa colleges respectively. MoE (2008) stated that research and publication are integral parts of the responsibility of teachers in HEIs to enhance the quality of education, solve educational problems and make one self up-to-date to the theories and methods of research. One of the major tasks of teachers in HLIs is to carryout research (Ayalew, Dawit, Tesfaye & Yalew, 2009). Education and training policy (TGE, 1994) of Ethiopia declared at all levels of higher education will be research oriented. This enables students and teachers to become problem-solving professional leaders in their fields of study and in the overall societal needs. “Research is directed toward the solution of a problem” (Abiy et al., 2009, p.14). For this reason, it needs investigation about the implementation and quality of the research studies in solving educational problems which were presented at the colleges based on these theoretical framework, personal observation and experience.

Therefore, the problem of this study was to determine the relationship between instructors’ work experience and research practice at Abyi Adi College of Teacher Education (AACTE) and Adwa College of Teacher Education (ACTE), mainly, the quality and implementation of research studies in solving educational problems. This study is emphasized on the educational action research and applied research studies presented at the colleges.

1.3. Objectives of the Study

General Objective

The main objective of the study is to investigate the quality and implementation of research studies in solving educational problems at Abyi Adi and Adwa colleges of teacher education.

Specific Objectives of the Study

The specific objectives of the study are to:

1. Examine the relationship between teacher-researchers' work experience and research practice at the colleges;
2. Analyze the quality of the research studies practiced and presented at the colleges;
3. Assess to what extent the research studies are implemented at the colleges;
4. Examine the perception of instructor-researchers about the quality and implementation of research studies;
5. Explore the values of the research studies in solving educational problems;
6. Identify the challenges of implementation of research studies at the colleges.

Basic Research Questions

The basic research questions to be answered in this study are the following.

1. What is the relationship between teacher-researchers' work experience and research practice at the colleges?
2. What is the status of the quality of the research studies presented at the colleges?
3. To what extent are the research studies implemented at the colleges?
4. What is the perception of teacher-researchers about the quality and implementation of the research studies?
5. What is the value of the research studies in solving educational problems?
6. What are the challenges of implementation of research studies at the colleges?

1.4. Significance of the Study

The result of this study is expected to promote the implementation of research studies and to benefit research users by putting research recommendations/ findings into practices so as to solve educational problems. The aim of this research is to minimize the gap between research studies and its practice. It may help to inform the educational research stakeholders to carry out quality based research implementation so as to promote the quality of education. Besides, the research may help to impart objectified knowledge and how to implement the research findings and recommendations. This may help to integrate the stakeholders especially, recommended bodies, teacher- researchers and practitioners, policy makers to implement the research findings obtained at the research conference collaboratively.

1.5 Delimitation of the Study

This study was conducted to Abyi Adi and Adwa colleges of teacher education which are found in the central zone of Tigray. Implicitly, the study was delimited only on the applied and action research studies presented at the research conferences. To make the study manageable and specific its scope was delimited to the quality and implementation of the research studies in solving educational problems which were presented at the research conference.

1.6. Limitation of the Study

During the interviews and focus group discussion, the interviewees were not interested to be recorded. There was no relevant research material to this study particularly, in Ethiopia context about the quality and implementation of educational research studies.

1.7 Organization of the Study

The study comprises five chapters. The first chapter deals with the problem and its approach, consisting of background, statement of the problem, objectives and research questions, delimitation, limitation and operational definitions of the study. The second focuses on the review of related literature, which lays the indicators of quality research, implementation of research studies, and conceptual framework of the study in particular and the purpose of research in general. While the third chapter deals with research methodology and procedures of the study.

Fourth chapter presents analysis and discussion of the results. Finally, the major findings and conclusions made and recommendations forwarded.

2. Review of Related Literature

This chapter concerns review of related literature which focuses the implementation and quality of research in particular and on the purpose of research in general. Implicitly, it reveals the purpose and the types of research based on purpose, team versus alone research, indicators of quality research and implementation of research studies. Moreover, this lays the conceptual framework of the study.

2.1 The Purpose of Research

According to Abiy et al. (2009, p.14) "the purpose of scientific research is problem solving." The problem could have an immediate practical value or theoretical nature. DeMatteo et al. (2005) asserted that the research ideas stem from a researcher's motivation to solve a particular problem. However, Besley (2009) argued that educational research is oriented towards the scientific community and has little to do with what happens in schools as teachers rarely informed of the results. In each of the research study, researchers are attempting to solve specific problems. This type of problem solving research is often conducted in professional settings, because the results of these types of research studies typically have to add benefits of possessing practical utility (DeMatteo et al., 2005). Purpose is a controlling force in research decisions about design, measurement, analysis, and reporting. The central purpose in decision making methods becomes evident from examining rigor, validity, and theoretical framework. In contrast, evaluators and action researchers publish reports for specific stakeholders who will use the results to make decisions, improve programs and solve problems (Patton, 2002). According to Besley(2009), innovations in pedagogy come from different discipline in the field of education teachers and trainers of the various disciplines who do not get involved in the world of educational science.

Moreover, Abiy et al. (2009) stated that "one of the main characteristics of research is directed towards the solutions of the problems based upon observable experience or empirical evidence" (p.14). In light of this, Besley (2009) asserted that higher education plays a crucial role in developing high quality teaching and research that bolsters productivity. Yet the assessment of educational research as part of national monitoring system is at low status and performance as compared to other disciplines. Koshy (2005) argued that action research involves returning to

the question of theory and practice and show that self-critical communities of action researchers enact a form of social organization in which truth is determined by the way it relates to practice.

Different scholars classified research based on purpose into different types. Kothari (2004) and Abiy et al. (2009) classified research either applied or fundamental. While Patton (2002) and McMillan and Schumacher (1997) classified as basic, applied, evaluative and action research and Johnson (2008) added that orientation research and its purpose is to political agenda and voting. However, Patton (2002) underlined that there is no clear lines that divide the points along the continuum what is being done and its purpose.

2.1.1 Basic Research

As Patton (2002) stated, the purpose of basic research is for the sake of knowledge. Researchers who engaged in basic research want to understand how the world operates. Abiy et al. (2009) also stated that basic research is concerned with the formulation of theory or knowledge. It is designed to add scientific knowledge and does not necessarily produce results of immediate practical value. In line with this, MoE (2008, p. 98) argued that:

> Scientific *research is to provide an empirically proven basis for improvement. It involves systematic designs, involving large, structured samples and gathering of quantitative data. Its objective is seeking generalizations and explanations. While interpretive research is to inform judgments as a basis for improvement. The researcher follows flexible designs, involving detailed, holistic case-studies and empathic gathering of qualitative data. It involves subjectivity describing cases and developing understanding.*

Furthermore, Abiy et al. (2009) insists that basic research is experimental and theoretical work undertaken to acquire new knowledge. Gathering knowledge for the sake of knowledge is termed as pure research.

2.1.2 Applied Research

According to Kothari (2004), applied research is aimed at finding a solution for an immediate societal problem. The central aim of applied research is to discover a solution for practical problems. For Abiy et al. (2009), applied research is a research undertaken to solve practical problems rather than to acquire knowledge. However, Patton (2002) argued that the purpose of applied research is to contribute knowledge that will help people understand the nature of a problem in order to intervene there by allowing human beings to control their environment.

2.1.3 Evaluative Research

Patton (2002) noted that once solutions of the problems are identified, policies and programs are designed to intervene in society and bring about changes. It is hoped that the intervention and changes will be effective in solving the problems. For Dessalegn (2000), evaluation studies are designed to yield data concerning the value of educational phenomena. Cohen, Manion & Morrison (2005, p. 39) discussed that "the researcher is motivated by a search for knowledge; the evaluator is motivated by the need to solve problems, allocate resources and make decisions." While Bortz and Doring; Wottawa and Thierau cited in Jenner (2004) argued that evaluative research is applied social research.

According to Patton (2002), formative evaluation is relied heavily on the process of implementation and evaluation studies. Whereas summative evaluation serves for the purpose of rendering an overall judgment about the effectiveness of a program, policy, or product either it should or not continue. In connection with this, Dessalegn (2000) states that one issue in an evaluation design are whether the evaluation is to be done by an external or internal evaluator. Most types of evaluation can be done by internal evaluator but summative evaluation is best done by an external evaluator.

2.1.4 Action Research

Kemmis and McTaggart cited in Cohen et al. (2005, p. 229) noted that "action research is an approach to improving education by changing it and learning from the consequences of changes." In line with this, Lewin cited in MoE (2008) stated that action research is usually

attributed to the work of educational areas. Lewin also developed a theory of action research as a spiral of steps involving planning, fact-finding and execution. Whereas McNiff and whitehead (2004, p.46) modified that "the cycle of planning, acting, observing, reflecting and re-planning, as the basis for understanding how to take action to improve an educational situation." Currently, action research is very popular in education (MoE, 2008).

Dawson (2009) claimed that in action research the researcher works in close collaboration with a group of people to improve a situation in a particular settings. While Abiy et al. (2009**)** stated that action research is a methodology that combines action and research to examine specific phenomena through observation, reflection and deliberate intervention to improve practice. This collaborative strategy is tended to reduce the anxiety level and consequent defensiveness of teachers. Not only they control over access to data, but they can able to treat its analysis of hypothetical (Ellitott, 2001).

According to Berg (2001), action research is a collaborative approach that provides people to take systematic action to resolve specific problems. This approach endorses consensual, democratic, and participatory strategies to encourage people and to examine their problems. Patton (2002) advocated that action research aims at solving a specific problem. Purposefully, it becomes part of the change process by engaging the people in the program or organization in studying their own problems in order to solve those problems. As Firdissa (2007) distinguished, action research is a systematic and active reflection on practice with a view to improving practice. For Koshy (2005), action research is for better understanding, improvement, reform, problem-solving step-by-step process and modification. MoE (2008) noted that action research is directly improving practice through self development.

Berg (2001) distinguished that both formative and action research focus on specific programs at specific points in time. There is no intention to generalize beyond those specific sites. The findings of formative evaluation and action research are seldom disseminated beyond the immediate program or organization within which the study takes place (Patton, 2002).

Cohen et al. (2005) pointed out that action research develops through the self-reflective spiral. In light of this, Koshy (2005) stated that action research is carried out by a group of practitioners, who select a new initiative problems consider ways of implementing for improving practice.

2.2 Team Research versus the Lone Research

According to Chamber cited in Desai and Potter (2006), participatory research is associated with an ideological position that insists on the involvement of local people in the decision-making processes. Similarly, Patton (2002) stated that team research is a powerful form of collaborative research in which trained researchers and none researchers undertake an inquiry. When conducting research in a collaborative mode, professionals become core researchers. Cornwall cited in Desai and Potter (2006) also argued that the result is widely developed based on pragmatic and humanitarian considerations with its own language, including terms such as stakeholders, ownership of problems/solutions, empowerment and full participation.

As to the argumentation of Bogdan and Biklen (1992), the majority of qualitative research is termed lone-ranger research. While Gray (2004) argued that the validity in research is asked to investigate the extent to which team work among different members of a project group has improved over a period. The problem here is how the concept of team work is defined based on personal impressions.

Jenner (2004) suggested that current implementations should only be carried out in groups, so as to expand, correct or check the subjective views of interpreters. Bogdan and Biklen (1992) claimed that researchers should know that team research can be satisfying and productive. As every team's effort, it is important to be linked to people with whom you feel comfortable share your values and understanding of the division of labor in decision making. According to Desai and Potter (2006), if community members design and use a questionnaire to study research problem of their choice, it is a participatory process. The strength of using participatory approaches is that researchers are able to gain access to people and bring their problems to public notice. Furthermore, Gray (2004) pointed out that the team can avoid the problem if the researchers:

> *(1)Operationally defines the concept team work at the outset. (2) Selects appropriate measurement instruments and/or data sources for the defined concept. (3) Uses multiple sources of data in a way that encourages divergent lines of inquiry.(4) Establishes of a chain of evidence during the data collection process and evaluates the draft case study report through feedback from key informants (p.*136).

Berg (2001) stated that action research sometimes refers to as participatory which is a research framework that evolved from a number of different intellectual traditions. Also Patton (2002), participatory action research encourages collaboration within a mutually acceptable ethical framework to understand and solve organizational or community problems. Empowering environment aims to foster self determination among those who participate in the inquiry process. This can involve forming empowerment partnerships between researchers and participants. "Action research is a group activity but not individualistic" (Cohen et al., 2005, p. 230). Moreover, Desai and Potter (2006) explained that participatory research involves in practice:

> *(1) people should be active agents in their own lives, (2) research should respect research participants' own words, ideas and understandings, (3) researchers and research participants are equal, (4) research methods should be flexible, exploratory and inventive and (5) both researchers and research participants should enjoy the research (p.*192).

Berg (2001) identified three types of action research: (1) scientific collaborative mode of action research (2) mutual collaborative i.e., researcher and practitioner come together and collaboratively identify potential problems and issues and (3) emancipating critical science mode of action research. However, Firdissa (2007) argued that participatory research is collaborative inquiry, emancipator research, action learning and reflection on practice. Collaborative action research is based teams of practitioners who have common interests and work together to investigate issues related to those interests. Kemmis and Wilkinson cited in Armstrong and Moore (2004) stated that action research is a social process, participatory, collaborative, emancipator, and learning by doing.

2.3 Indicators of Quality Research

As Abiy et al. (2009, p. 85) noted, "reliability and validity are central concerns in document analysis." For Boaz and Ashby; Nagel and Ragin; and White and July cited in NCDDR (2011), quality can be framed in terms of credibility, validity, reliability, and objectivity. Miles and Huberman cited in Jenner (2004) advocated that we must include the proposal to incorporate qualitative criteria such as credibility.

However, Flick (2007) argues that the relation between ethics and quality in qualitative research can be discussed from three angles: (1) quality is seen as a precondition for ethically sound research, (2) reflection of ethical issues and (3) doing research according to quality standards may affect ethical issue. Also Dawson (2009) argued, for quantitative data analysis, issues of validity and reliability are important while qualitative data analysis is a very personal process. In qualitative data analysis, it asks the researchers to analyze a transcript and they will probably come up with different results. However, O' Leary (2004) argued that credibility takes on a more specialized meaning and is demonstrated by indicators such as reliability.

Flick (2007) noted that the classical criteria of empirical social research reliability, validity and objectivity to apply them. However, the question of quality in general can be answered by using criteria, but that miss the features of qualitative research and methods. Lohr; West, King, and Carey cited in NCDDR (2011) explained that the level of confidence one might have in evidence turns on the underlying robustness of the research and the analysis done to synthesize that research. As to O' Leary (2004), applicability of the result is one of the criteria of good research. Lincon and Guba cited in Flick (2007) pointed out that the credibility, trustworthiness, dependability, transferability and conformability are criteria for qualitative research.

Cohen et al. (2005) argued that evaluation is judged by the criteria of utility, accuracy, propriety and credibility whereas research is judged methodologically and by the contribution that makes to ensure internal and external validity. Gall, Borg, and Gall cited in Dessalegn (2000) backed up that good evaluation study satisfies four criteria: Utility, feasibility, propriety and accuracy. Nevertheless, Gray (2004) argues that the quality of any evaluation process is also deeply influenced by the familiar issues of validity and reliability. On the other hand, Flick (2007) claimed that reliability of the whole research process can be developed by its reflexive documentation. For Mosteller and Boruch, Shavelson and Towne cited in NCDDR (2011), research quality pertains to the scientific process and evidence. Quality also pertains more to a judgment regarding the strength and confidence one has in the research findings emanating from the scientific process. However, Ali et al. (2007) argued that evidence based policy making is part of the pragmatic case for researchers focusing more attention on outputs and outcomes.

Also Flick (2007) argued that the relevance of the research result is another quality issue in research. Perhaps another indicator for this development needs its current relevance of the question of how to evaluate qualitative research, the plans, the methods and the results obtained. According to Raudenbush, February, Shavelson and Towne cited in NCDDR (2011), the term evidence-based as it relates to research-based knowledge, pertains to the summative collection of research on a specific topic that answers specific and important questions.

Validity: As argumentations of Muijs (2004), validity basically concerns whether we are measuring what we want to measure. Likewise, Ali et al. (2007) suggested that one needs to consider the validity of the data. That is the researcher has to consider the accuracy of what is collected and used as evidence. However, methodological triangulation involves a complex process of laying each method against the others so as to maximize the validity (Koshy, 2005).

For O'Leary (2004), validity is concerned with the truth value and conclusion that considers whether methods, approaches and techniques actually relate to what is being explored. Nevertheless, transferability concerns whether findings and conclusions from a sample lead to lessons learned that may be germane to another group.

Flick (2007) noted that generalization of the results is often closely linked to realize the sample. O'Leary (2004) asserted that generalizability concerns whether findings or conclusions from a sample are directly applicable to a larger population. Authenticity deals with truth while recognizing that multiple truths may exist. It is also concerned with describing the deep structure of experience/phenomenon in a manner that is 'true' to the experience. O'Leary (2004) supported that generalizability also referred to as external validity indicates that the findings of a sample are directly applicable to the settings. Findings from the sample may vary to that of the population, and it should consider the generalizability of statistical probability of being representative. In connection to this, Cohen et al. (2005) stated that external validity refers to the degree to which the results can be generalized to the wider population or situations.

Jenner (2004) argues that essential textual strategies for validation in qualitative research are the disclosure of the procedure and the process of interpretation, the presentation of the relevant data, the reproduction of transcripts and field notes. For DeMatteo et al. (2005), Validity refers to the conceptual and scientific soundness of a research study. The primary purpose of all forms

of research is to produce valid conclusions. Researchers are usually interested in studying the relationship of specific variables.

As O' Leary (2004), validity is an assumption what is being studied and that can be measured to confirm the truth and accuracy of any findings or conclusions drawn from the data. It indicates that the conclusions the researcher has drawn are trustworthy. DeMatteo et al. (2005) also described that validity is related to research methodology because its primary purpose is to increase the accuracy and usefulness of findings by eliminating or controlling as many confounding variables as possible. The general design strategies which can be used to ensure the conclusions drawn from the results of a study are valid. As O' Leary (2004) noted, there is a clear relationship between the reality that is studied reported with cohesion between the conceptual frameworks and findings evident. Conclusions need to be justified from what was found to accurately reflect what was being studied.

Reliability: Robson cited in Koshy (2005) suggested that reliability is described as stability of a measure and consideration of when the measure is repeated. According to NCDDR (2011), consistency for any given topic is the extent to which similar findings are reported using similar and different study designs. It provides the necessary information to replicate the study. As to O'Leary (2004) states, reliability is concerned with internal consistency, i.e. whether data collected measured are the same under repeated trials. Whereas dependability accepts that reliability in studies of the social may not be possible, but it attests that methods are systematic, well-documented and designed to account for research subjectivities. Muijs (2004) noted that reliability refers to the extent to which test scores are free of measurement error. The repeated measure or test –retest reliability is concerned whether the instrument we use give us similar results if used with the same respondents after a short period of time. Internal reliability is also concerned with the consistency whether all the items are measuring the same construct.

Triangulation: Flick (2007) suggests that triangulation should produce knowledge at different levels and contribute to promote quality of research. As Jenner (2004), triangulation of theories means approaching data with multiple perspectives and hypotheses in mind using various theoretical points of view that could be placed side by side to assess their utility and power. As Koshy (2005) noted that the role of triangulation in data gathering involves constructing

perceptions of one actor in specific situation against other actors in the same situations. In line this, Elliott (2001) states that the basic principle and the idea of triangulation is to compare and contrast the data collected from a variety of angles and perspectives.

Argumentation of Flick (2007) shows that triangulation is focused on the promotion of quality especially, in the context of qualitative research. By combining several lines of sight, researchers can obtain better theoretical concepts of reality (Berg, 2001). Flick (2007) also mentioned that another purpose of triangulation is the generalizability of results. As to the argumentation of Cohen et al. (2005, p. 112), "triangulation may be defined as the use of two or more methods of data collection in the study of some aspect of human behavior." The use of multiple lines of sight refers to triangulation (Berg, 2001).

For Jenner (2004), triangulation of data combines data drawn from different sources at different times and in different places or from different people. Investigator triangulation is characterized by the use of different observers or interviewers, to balance out the subjective influences of individuals. As Denzin cited in Berg (2001) pointed out that triangulation actually represent varieties of data, investigators, theories, and methods. And Flick (2007) realized that by combining methods and investigators in the same study, observers can partially overcome the deficiencies that flow from one investigator and method. In these respect triangulations of methods, investigator and theory remain the soundest strategy construction. In line with this, Cohen eta al. (2005, p. 113) point out that:

> *Triangulation includes (1) time triangulation- reliability over time and similarity of data gathered at the same time, (2) space triangulation, (3) combined level of triangulation, (4) theoretical triangulation (drawing one alternative theories), (5) investigator triangulation, and (6) methodological triangulation (using the same method on different occasions or different methods on the same object of study*).

Yin (2011) stated that triangulation also can be applied throughout a study although the practice has tended to be associated with a study's data collection phase. Not only seeks confirmation from three sources but also would try to find three different kinds of sources.

Application and action orientation: O'Leary (2004) states that applicability show that the findings have relevance for a larger sector of society than the sample or setting itself. The standard indicator of applicability has been generalized whether a sample reflects for a population. DeMatteo et al. (2005) claimed that good research problems must meet three criteria: (1) the research problem should describe the relationship between two or more variables (2) the research problem should be taken in the form of a question and (3) the research problem must be applicable. O'Leary (2004) added that the proliferation of smaller scale studies focus on the collection and analysis of primarily qualitative data. However, it has led to the need for alternative indicators such as transferability- whether lessons learned have relevance to other settings/populations. According to Cresswell (2003) argumentation:

> *A researcher has to identify a significant problem or issue to study and present a rationale for its importance. During identification of the research problem it is important to identify a problem that will benefit individuals being studied. A core idea of action/participatory research is that inquire will not further marginalize or disempowerment the study participants (p. 63).*

On the other hand, O'Leary (2004) argued that credibility of a research project relies on the broad applicability of its findings. To have relevant conclusions related to only a particular sample or only within a particular research setting severely limits the capacity of the empirical research.

Credibility: O' Leary (2004) stated that to create new knowledge research must be seen as credible. In other words, it must have the power to elicit belief. Research that is not seen as credible is unlikely to be accepted as a contribution to a larger body of knowledge. Credibility can come from believable and realistic. For Sagor (1992), credibility of any research effort lives on the quality of the data used to support its conclusions. As Flick (2007, p. 20) pointed out, the criteria for credibility are:

> *(1) Has the research achieved intimate familiarity with setting or topic? (2) Are data sufficient to merit your claims? (3) Have you made systematic comparisons between categories? (4) Do the categories cover a wide range of empirical observations? (5) Are there strong logical links between the*

gathered data and your argument and analysis? And (6) has your research provided enough evidence for your claims to allow the reader to form an independent assessment and agree with your claims?

Objectivity: As O'Leary (2004), objectivity implies distance between the researcher and the research. This standard exists in order to prevent personal bias from 'contaminating' results. Its goal is held by many post-positivist as well as positivist researchers. However, Flick (2007) argues that it is difficult to apply as criteria to qualitative research. Objectivity is reduced to the question of whether two researchers come to the same results with the qualitative data at hand.

2.4 Implementation of Research Studies and Recommendations

According to Ali et al. (2007) stated that the primary responsibility for translating research findings into practice is beyond the research process. USAID (2008) asserted "issues related to the identification of policy problems require consistent research and the use of research results for refinement of policy proposal" (p. 36). Ali et al. (2007) suggested the need collaboration between policymakers and researchers to implement research findings and involve stakeholders who will be affected policy changes and its practices.

As Cohen et al. (2005) stated, one can detect a trend in educational research towards more evaluative research, for instance, researcher's tasks to evaluate the effectiveness of given policies and projects. In line with this, Blase et al. (2005) asserted from an implementation point of view there are always two important aspects of every research study, demonstration project and attempted intervention. In each study, there are implementation processes, intervention and outcomes. Ali et al. (2007) recommended that a policy research function should be incorporated to the central MoE or other levels to feed policymakers with appropriate information for decision making.

Morazan (2010) argues that research provides a venue for the presentation and discussion of new ideas and concepts of work in progress and publication ripe-results. We need to propose that a set of issues linked to the publication, application and implementation of research findings must be considered as an integral to the research process (Ali et al., 2007). Practice should be based on good quality systematic reviews and high quality research (Donald and Haines, 2002). On the

other hand, evidence based research report putting research into practice concluded that professional behaviors are most likely to be influenced (Ali., 2007). According to Blase et al. (2005), the components for implementation are staff selection, pre-service and in-service training, ongoing consultation, staff and program evaluation, and systems interventions. As Guaghan (2008) stated, identifying and implementing findings of research needs practice so as to solve educational problems supported by rigorous evidence. Practitioners have the tools to identify evidence based interventions; they may be able to spark major improvement in their schools collectively. Donald and Haines (2002) also suggested that there should close links between research and practice; and it should be relevant to the practitioners who are willing to participate in research. The intervention must be well defined and carefully evaluated with regard to its effects on its intended consumers (Blase et al., 2005).

According to Abiy et al. (2009), applicability of results and relevance of the research problem are criteria in research problem. Writing and reporting a research is only one element in the process of trying to ensure that research findings have useful outcomes. The role of research to involve in the process of application and implementation of findings can have benefits for both research users and researchers (Ali et al., 2007). Blase et al. (2005) noted that only when the effective programs fully implemented, the expected outcomes will be obtained. The research components and its findings should be defined by the codebook and selected quotations. Blase et al. (2005) asserted, performance implementation refers to the implementation that produces actual benefits to consumers. Reporting findings and making recommendations have to be provided for policy makers or practitioners by considering the implementation (Ali et al., 2007).

Stakeholders: According to Blase et al. (2005), the involvement of stakeholder throughout all stages of the implementation process is needed if only it is practiced based on the evidence. Also Ali et al. (2007) stated that building relationships between researchers and stakeholders enhances ownership and the likelihood of action throughout the research processes. Blasé et al. (2005) noted that selecting an implementation site based on certain assessment criteria, implementation staff for key roles as trainers, practitioners, evaluators and administrators who are familiar with the research studies is needed. Selection of staff is important for having effective practitioners, trainers, effective coaches, skilled evaluators and facilitative administrators (Blase et al., 2005). They further claimed that skilled practitioners and other well-trained staff must be replaced.

2.5 Conceptual Framework of the Study

Moll cited in Blase et al. (2005, p. 74) pointed out, "without theory it is hard to talk about practice and without practice, theory has no meaning." Advancing theory and improving implementation strategies depend on having better research. As USID (2008) stated, any research producing practically-usable knowledge which can improve program implementation regardless of the type of research falls within the boundaries of research implementations. In connection to this, Patton (2002) argued that where implementation is successful, significant, participants bring change in attitudes, skills, and behavior. In a project, methods need modify to suit the needs and interests of the local staff and in which the staff changed to meet the requirements of the project. As Blase et al. (2005) claimed that the essence of implementation research is behavioral change. Implementation of evidence based practices and programs cannot occur unless the practitioner is well-prepared to deliver the required practices in the interactions with a consumer.

Ragin et al.; Shavelson and Towne; Wooding and Grant cited in NCDDR (2011) asserted that the standards for quality research, whether primarily designed to gather quantitative or qualitative data. The typically emphasize the traits of objectivity, internal validity, external validity, reliability, open-mindedness, honest and thorough reporting. On the other hand, O'Leary (2004) suggested that credibility of the research takes more specialized meaning and is demonstrated by indicators. Such indicators point out that research has been approached as disciplined inquiry likely to be accepted as a valued contribution to knowledge. NCDDR (2011) has also stated that qualified people evaluate basic or applied research is to understand its quality in its connection to public and agency goals.

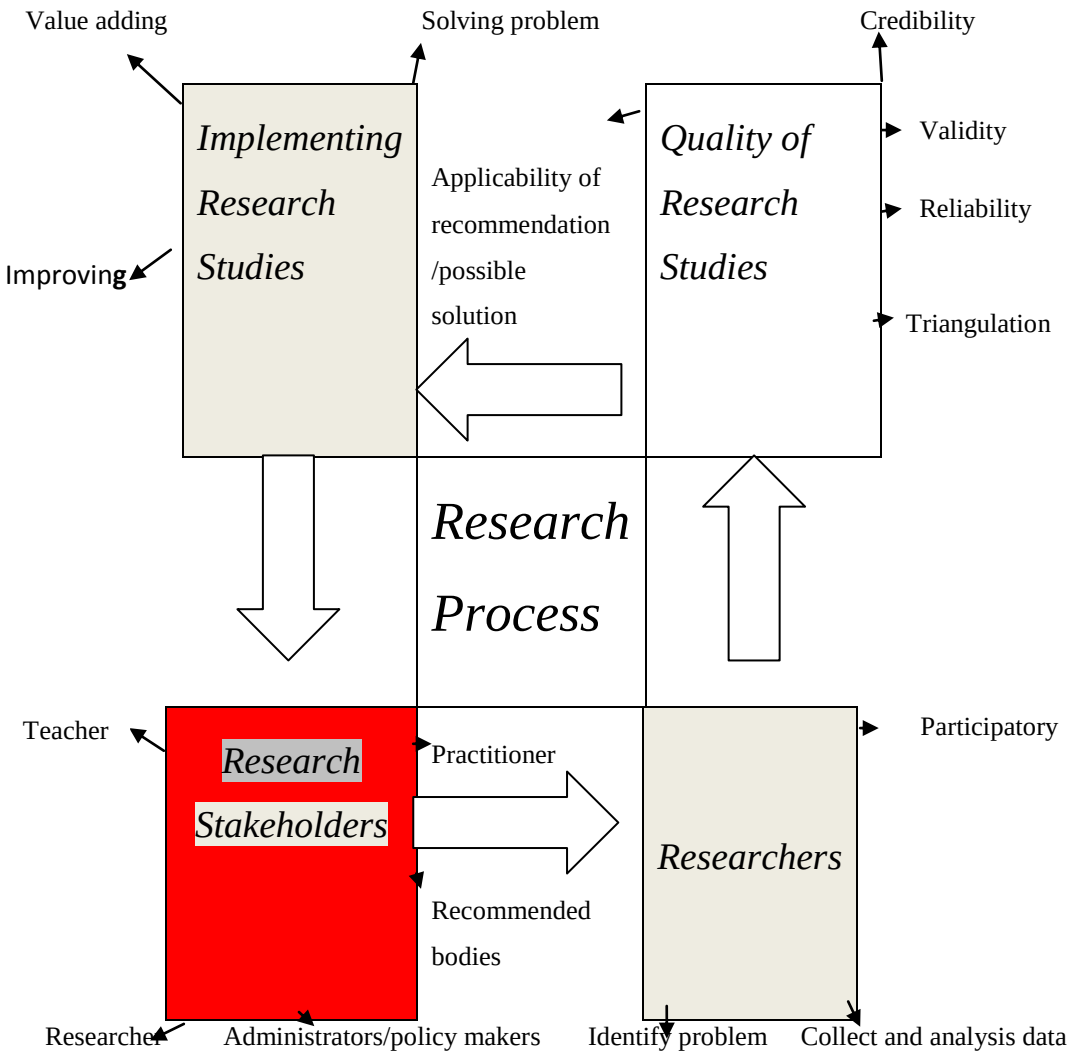

Figure: 1 Conceptual Framework of the Study

The way of thinking about research has an influence on the process of research ideas how research is setup, the relationships of funders, collaborators, and respondents of the research and the researchers engage in the process of reporting and presenting findings, application and implementation (Ali et al., 2007). Researchers often seek findings that are applicable beyond an immediate frame of reference (O'Leary, 2004). The research project must have practical value beyond the immediate analysis to have validity (Tayie, 2005). As USAID (2008), the research team must have a plan of action or work plan. The plan can include comprehensive components of the work plan expected to be implemented. For Blase et al. (2005), research needs to be conducted to determine the effectiveness of implementation strategies and procedures as they are actually used in practice. It needs to be conducted on implementation outcomes that are independent of the content of the specific practice or program being implemented.

3. Methodology

In this section design of the study, participants of the study, instruments used, and procedures of the study and methods of data analysis are presented.

3.1 Design of the Study

This study uses both qualitative and quantitative methods. Primary and secondary data sources were also used. More specifically, correlation, descriptive and meta- analysis designs were used.

3.2 Participants

As stated earlier, in Tigray region there are two colleges of teacher education: Abyi Adi and Adwa colleges. Deans and vice deans of the colleges, researchers, RPOs, HDLs, SDUs, the head of departments and all instructors of the two colleges were the major participants of this study. The instructors who have more than one year of teaching experiences at the colleges have been taken. Because they presumably participated at the research conference, training on action research in HDP and conducted research once a year. It was believed that they were the major educational research stakeholders in the implementation of educational research studies and could determine the quality of the research studies which were presented at the research conference. The regional education bureau offices were also participated.

The total instructors who have more than one year of teaching experience at the colleges were 160. Since the population was manageable, all instructors were included in the study. For this reason, 160 questionnaires were dispatched to all instructors using purposive sampling. However, 156 of them were turned back**.** Likewise, for the interview and focus group discussion, purposive sampling was also used to obtain relevant and rich information. The interviews were conducted with two deans and two vice deans of the colleges, two SDUs, a pedagogy instructor, two HDLs, two instructors of curriculum studies and two department heads, two researchers, two RPOs and two RPOs committees of the colleges. Moreover, interview was conducted with the REBO and CEREBO. For the first focus group discussion two pedagogy instructors, two instructors who have MA in educational psychology, two instructors of curriculum studies, one MA in educational research and another one MA in special needs of

education were the main participants. The second focus group discussion was conducted with eight instructors who did research and participate at the research conference. They were included in the study with the assumption that they knew the overall implementation and quality of the research studies at the colleges. It is also believed that they have more information about the teachers' and researchers' activities in research and related problems encountered. Furthermore, it was also assumed that they have participated at the research conferences for several times and carried out research as well.

However, for the document analysis 16 research papers i.e., 8 action research and 8 applied research papers were selected randomly from each profiles of action research and applied research papers. The research papers were taken from the research and publication profiles which were presented at the research conference.

3.3 Instruments

In this study, questionnaire, interview and focus group discussion (FGD) guides were the primary data gathering instruments. Document analysis of the research studied and presented at the research conferences was also analyzed.

3.3.1 Questionnaire

This questionnaire consisted of five parts. The first part dealt with general information and the second part indicated the level of satisfaction of the overall quality of the research studies presented at the conferences. The third, fourth and fifths contained the scales of effectiveness, likert scale and open ended questions respectively. The first part of the questionnaire had 10 close- ended items that requested the respondents to indicate their sex, age, educational qualification, field of study, research practiced, service year at the college, how often they participated at the research conference, research publication, research training and implementation. The second and third parts contained 15 items each which indicated that the level of satisfaction by the overall quality and effectiveness of the research implementation respectively. The fourth part consists of 47 items concerning the implementation, quality and the values of the research studies in solving educational problems. This part consists 20 items for action research and 27 items for applied research. The fifth part contains 5 open- ended questions

which focus on quality, challenges of implementation, hinder engagements of teachers in research practice, and the measures that should be taken. All items were developed by the researcher based on theoretical literature.

3.3.2 Interview

Interviews were conducted to see the quality and implementation level of research studies in solving educational problems. The interview consists of 25 semi-structured questions. Probing questions were also asked to the interviewees to capture in depth and detail information.

3.3.3 Focus Group Discussion

Focus Group Discussion **(**FGDs**)** was held concerning the research studies implementation, the quality and value of the research studies in solving educational problems at the colleges. Two focus group discussions were conducted to collect qualitative data from the participants' perceptions, opinions and experiences. In each FGD eight members were participated. During the discussion on the issue, the researcher recorded what they have discussed and consensus on the issues. The discussions took 40 minutes for each FGD. Moreover, the researcher recorded what they have reached consensus on the issue in terms of frequently, some times and rarely mentioned by the participants. The FGD consists 10 open-ended and some probing questions were asked.

3.3.4 Document Analysis

To examine the implementation especially, the quality of the research studies, research papers were analyzed which were presented at the research conference. In this study, two types of research papers were analyzed: Action research and applied research papers. The SMART of the research problem (i.e., whether the research topic should be researchable); cycles of implementation, and the stages of action research process were analyzed. Similarly, for quality indicators of action research and applied research, the internal and external validity and reliability, triangulation and credibility of the research papers were critically analyzed. Applicability of applied research recommendation was also tried to analyze. Criteria were

developed based on theoretical literature by the researcher for each of the indicators of implementation and quality of the research studies.

3.4 Procedures

To see the reliability, pilot study was conducted for the prepared questionnaire and pilot protocol to the general guide line questions of the interviews and FGD. It was shown to the advisor to ensure the appropriateness of items validity so as to collect relevant information. Beside to this, it was shown to experienced persons to see the clarity and validity of the questions. Accordingly, amendments were made based on pilot study and feedback obtained from the advisor, instructors and experienced persons.

The pilot test was conducted on a 31 instructors of teacher education of Abyi Adi and Adwa. The instructors have more than two years of teaching experience at the colleges of teacher education. Accordingly, all the instructors properly filled the questionnaires and returned it. The responses of the instructors were scored and tabulated using SPSS to compute items inter-correlation and cronbach-alpha in order to evaluate the reliability. The pilot results found to be reliable between 0.890 and 0.901 alphas and 0.218 and 0.787 inter-correlation. The pilot protocol of the interview and FGD also practiced with six instructors about the procedures, clarity and validity of the questions. Among the instructors a former of HDL, committees of RPOs, psychology, pedagogy and researchers were involved. Likewise, preliminary observation was conducted on the research and publication profiles. This was at the beginning of the research proposal. The preliminary study was conducted to check the availability of the documents and to see the quality of the research studies. Some research papers were read and understood before the research proposal developed. The RPOs includes two types of profiles: those are action research and applied research.

Having carried out pilot test of the questionnaires, amendments made accordingly. After that the data collection preceded at the colleges. Before distributing the questionnaires, orientation and explanation were given to the respondents on how to fill and administer them. Two days were given to fill and return the questionnaires. Except four questionnaires all were returned. While conducting interview and FGD, the purpose of the study was explained to the participants to get genuine and deep information. All the data were collected by the researcher.

3.5 Methods of Data Analysis

In this study, both qualitative and quantitative data analysis techniques were used. The quantitative data were entered in SPSS version 17. Based on the nature of the research questions, different statistical methods were employed. Correlation, descriptive statistics, independent *t*-test, paired *t*-test, one way ANOVA and multiple regression analysis were used. Spearman's rho correlation was used to determine the relationship between instructors' work experience and research practices at the colleges. Independent *t*-test was employed to determine the mean difference between BA and MA as well as between AACTE and ACTE in research practice, quality, implementation and solving educational problems. For the purpose of independent t-test analysis, the results of the questionnaires were sorted out based on instructors' qualification levels between BA and MA, AACTE and ACTE. Besides, paired *t*-test was used to determine which research was more practiced, implemented, in quality and which research solves educational problem between action research and applied research carried out by the instructors. For the purpose of paired *t*- test analysis, the results of the questionnaires were also sorted based on instructors' responses on each of action research and applied research.

To determine the variance among the instructor-researchers' perception about the implementation, quality and solving educational problems, one way ANOVA was employed. The ANOVA was carried out to determine the level of significance of mean differences among the instructor-researchers who have different levels of teaching experience, fields of study, research training, age category, and participation at the research conference. The results of the questionnaires were also sorted out based on the above variables. All instructors were grouped into three categories of teaching experiences at the colleges which is, instructors with 1-5 years of experience were in group one, instructors with 6-10 years of experiences were in group two and more than 10 years of work experiences were in group three. On the other hand, all instructors were grouped into four areas of fields of study that is natural science in group one, social science in group two, language study in group three and psychology and pedagogy in group four. The third category is based on their research training taken in pre-service, in service, and both in pre and in-service research training in group one, two and three respectively. Likewise, the fourth category is based on their participation levels at the research conference: often in group one, sometimes in group two and rarely in group three. The fifth category is based

on their age category this means 35 and below in group one, 36-47 in group two, and 48 and above in groups three. Stepwise multiple regression analysis was also employed to identify and examine the amount of variance in solving educational problems regarding the researchers' research practice, quality and implementation of research studies. The differences in mean score in all the variables were tested using significance level of 0.05. However, for the paired *t*-test was tested to see whether the average difference between action research and applied research measurements was equal to 0.

On the other hand, qualitative data were categorized and identified themes using patterns and matrix systematically. For the document analysis, the researcher developed criteria for each indicators of quality based on theoretical literatures reviewed. For the internal validity, the adequacy of sample based on the nature of population, appropriateness of sampling technique procedure, rich explanation and interpretation of data, relevance of data sources from the concerned bodies and valid measuring items were concerned. The external validity is based on the prerequisite of internal validity and whether the research results were generalizable to population or other situation. For the internal reliability, to what extent the researchers consider for consistency the instruments, pilot test and number of items used. The comparable replicability of independent studies with the same methods, results and settings were well thought-out for the external reliability. For the triangulation, the sources of data, qualitative and quantitative, methods, and team work versus alone research were examined. For the assumption of credibility, the thickness of the data and believability of the logical reasoning was considered. Furthermore, qualitative and quantitative methods of data analysis were well thought-out too.

The research problem was examined whether it was SMART, workable and solvable. The cycles of action, timetable/timeline and the action taken on subjects were scrutinized. For the stages of action, the action planning (re-planning), action taking, and action evaluating were analyzed. In addition, the baseline data and the relevance of action were also considered. Whether the recommendations were recommended for the concerned stakeholders (relevance) and applicability of the applied research recommendation at local level were analyzed too.

The data obtained through interview and FGD were analyzed through categories and themes using patterns and matrix to see the extent of implementation, the quality and the practical values of the research in solving educational problem.

4. Presenting the Results and Discussion

In this part of the study, the results obtained from instructors, RPOs, HDLs, SDUs, deans and vice deans, departments head, researchers, curriculum experts of the colleges and REBO and CEREBO using questionnaires, interviews, FGDs and document analysis are presented. The main purpose of the study was to investigate the quality and implementation of the research studies value in solving educational problems that were presented and conducted at Abyi Adi and Adwa colleges of teacher education. This study also dealt with the state of the relationship between instructors' work experience and research practice. Furthermore, the perception of instructor-researchers about the quality and implementation, and the challenges of research studies implementation were also examined.

4.1 Background of the Instructors

Table 1: Characteristics of the Respondents (n=156)

Characteristics		**N**	**%**
Sex	Male	142	91.00
	Female	14	9.00
	Total	**156**	**100**
Age	≤35	91	58.30
	36-47	54	34.70
	48≥	11	7.00
	Total	**156**	**100**
Teaching Experience	1-5	89	57.10
	6-10	44	28.20
	>10	23	14.70
	Total	**156**	**100**
Fields of Study	Psychology and pedagogy	43	27.56
	Languages studies	37	23.72
	Natural sciences	48	30.77
	Social sciences	28	17.95
	Total	**156**	**100**
Qualification	BA	77	49.36
	MA	79	50.64
	Total	**156**	**100**
Colleges	AACTE	81	51.92
	ACTE	75	48.08
	Total	**156**	**100**

As Table 1 indicated, 156 instructors were included in the study. With regard to their sex, 91.00% of instructors were males, while the remaining 9.00% of them were females. Compared with female instructors, the number of male instructors was dominant at the colleges.

With regard to the age structure, 58.30% and 34.70% were in the age category of 35 and below and, 36-47 years old respectively. About 7.00% of them were with the age category of 48 and above years old. To manage the table, the age structure of the respondents has been combined into three main variables as shown item two in the Appendix1. The teaching profile of the staff in both colleges indicated that the majority of the respondents (57.10%) served for 5 years or less at the colleges. However, 28.20% and 14.70% of the respondents have teaching experiences 6-10 and above 10 years at the colleges respectively. Instructors who have more than one years of work experience were taken.

As can be seen in Table 1 indicated that the academic qualification and fields of study of the instructor-researchers of the two colleges were used as major understudy input indicators of the implementation of research studies and to judge its quality which were presented at the colleges. Accordingly, the results on the academic background of the staff who participated in the study showed that 49.36% had a rank of degree holder while 50.64% of them were master's degree holder. The total instructors of AACTE and ACTE were 51.92% and 48.08% respectively.

4.2. Research Training Status and Participation Level of Instructors at the Research Conference

It is widely acknowledged that the research training status of instructors to do researches have direct bearing on the implementation of research based on quality work research. In line with this, instructors were asked and the results are presented in Table 2.

Table 2: Research Training Status of Instructors

Training	N	**%**
Pre-service	49	31.40
In-service	18	11.50
Both pre and in service	85	54.50
Total	**152**	**97.40**
Not taken training	4	2.60

From the total participants, almost all that is (97.40%) had taken research training in both pre and in service as a researcher. About 31.40% of them received research training as researchers in pre-service, while (11.50%) of them were trained in- service training. As can be seen in Table 2, the remaining numbers of instructors (2.60%) of them did not take any research training. This implies that the majority of the instructors who participated in the study had taken research training in pre-service and in service program. Nearly all the participants were trained as a researcher.

Table 3: Training Status of Instructors on the Implementation of Research Studies

Training	**N**	**%**
Pre-service	7	4.50
In-service	8	5.10
Both pre and in service	13	8.30
Total	**28**	**17.90**
Not taken	128	82.10

The training on the implementation of research studies of instructors plays a decisive role in the implementation of research recommendations and findings. However, Table 3 indicated that 82.10% of the instructors did not take training. Only 17.90% of the instructors took training about the implementation of research studies.

The instructors were also asked to indicate whether they published any research. Unfortunately, the participants published neither research journal nor produced book at both colleges. This implies that the values of the research conducted at the colleges were immaterial for other readers, followers and teacher-researchers. It was also not valuable evidence for further research implementation.

Table 4: Participation Level of Respondents at the Research Conference

Participation	**N**	**%**
Often	95	60.90
Sometimes	39	25.00
Rarely	17	10.90
Total	**154**	**98.70**
No response	2	1.28

The participation of the respondents at the research conference is necessary to decide the quality and implementation of research studies at the colleges. Table 4 shows that 60.90% of the respondents often participated, 25.00% of them participated sometimes, where as 10.90% of the instructors participated rarely at the research conference. Therefore, almost all the respondents are participants at the research conference

4.3. The Satisfaction of Instructor-Researchers about the Incentives and Facilities of Research

The teacher-researchers were asked if they were satisfied about the research training, availability of facility, budget allocation and incentive and promotion to do research**.** In light of this, the responses of the instructors are presented in Table 5.

Table 5:Descriptive Statistics on the Instructors' Satisfaction about the Incentives and Facilities of Research

Variables		**N**	$\bar{X}$	**S**
Age	35 and below	91	13.67	5.43
	36-47	54	12.42	5.71
	48 and above	11	14.00	5.42
	Total	**156**	**13.38**	**5.41**
Experience	One-five	89	11.28	6.25
	Six-ten	44	13.67	5.16
	Above ten	23	13.10	5.51
	Total	**156**	**12.45**	**5.72**
Training	Pre-service	49	13.17	5.61
	In-service	18	13.25	5.48
	Both pre and in service	85	15.30	5.50
	Total	**152**	**13.73**	**5.48**

Table 5 indicated that the level of satisfaction of instructors about facilities and incentives of research were measured using five satisfaction scales. The scale was used with 8 items and five

level of satisfaction scales scored where 1=Not satisfied, 2= Minimal satisfied, 3= Undecided, 4= Satisfied and 5= Very satisfied. Accordingly, the instructors were asked about their satisfaction on the overall promotion and facilities of research. Therefore, Table 5 depicted that the descriptive statistics were compared by their age, levels of teaching experiences and research training. Accordingly, the maximum possible mean score on the items measuring research practice was 40 and the minimum score is 8. The average mean score is also 24. Almost all the variables mean scores were below the average (24). This signifies that the teacher- researchers were not satisfied by the overall incentive and facilities of research.

Table:6 Summary of ANOVA on the Instructors' Satisfaction of Incentives and Facilities

Variables	Sources of Variations	Sum of Squares	Df	Mean Square	F	P
Age	Between Groups	16.46	2	8.23	0.27	0.76
	Within Groups	1124.92	37	30.40		
	Total	**1141.38**	**39**			
Experience	Between Groups	46.72	2	23.36	0.70	0.50
	Within Groups	1229.18	37	33.22		
	Total	**1275.90**	**39**			
Training	Between Groups	33.13	2	16.56	0.54	0.59
	Within Groups	1136.85	37	30.73		
	Total	**1169.98**	**39**			

P*>0.05

As can be seen from the Table 6, the differences in the overall mean instructors' satisfaction by the incentives and facilities of research were not significant difference among the age category ($F_{(2, 37)} = 0.76$, $P > 0.05$), years of work experience ($F_{(2, 37)} = 0.50$, $P > 0.05$) and research training levels ($F_{(2, 37)} = 0.59$, $P > 0.05$). From this we can deduce that the instructors who have different age, years of work experience and research training taken indifferent service training were in the same way of satisfaction by the overall the incentive and facilities of research.

4.4. The Relationship between Instructor-Researchers' Work Experience and Research Practice.

The relationship between teacher-researchers' work experience and research practices at the colleges was measured using years of work experience and number of research practiced at the colleges.

To see the relationship that exists between instructors' work experience and research practice at the colleges, Spearman's rho correlation was employed. The result indicated that the relationship between service years and research practice of instructors was very low.

Table 7:Descriptive Statistics on the Instructors' Research Practice in their Work Experience

Variables	N	$\bar{x}$	S
One-five	89	1.57	0.66
Six-ten	44	2.06	1.48
Above ten	23	2.12	0.49
Total	**156**	**1.82**	**0.91**

Descriptive statistics was employed in Table7 to see the research practiced by the instructors who have different levels of teaching experiences. That is who have 1-5, 6-10 and above ten years of work experience at the colleges were examined by research they carried out. Accordingly, the result of one way ANOVA is depicted and compared in Table 8.

Table 8: Summary of ANOVA on the Instructors' Research Practice in their Work Experience at the Colleges

Sources of variations	Sum of Squares	df	Mean Square	F	P
Between Groups	4.61	2	2.30	2.92	0.06
Within Groups	51.27	65	0.79		
Total	**55.88**	**67**			

P*>0.05

In Table 8, ANOVA was carried out to see if there was statistical significance difference among the means of three groups of instructors' research practice who have different levels of teaching experiences at the colleges. The means of the three groups were insignificant different ($F_{(2, 65)} = 2.92$, $P > 0.05$). This implies that the instructors having different levels of teaching experience at the colleges were in the same way in research practice.

Table: 9 Independent *t*-test Result between BA and MA Research Practice

Research practice		N	$\bar{x}$	S	t-test
Qualification	BA	77	2.05	0.91	0.21
	MA	79	2.00	1.05	

P*>0.05

To see whether there exists statistically significant mean difference between BA and MA in research practice, independent *t*-test was employed. The results in Table 9 reveal that the mean difference between BA and MA research practiced was found insignificant (*t*=0.21, df=79 p>0.05). This implies that instructors' educational levels or qualification has little or no effect in their research activities.

Table: 10 Independent *t*-test Result between AACTE and ACTE Research Practice

Colleges		N	$\bar{x}$	S	t-test
Research practice	AACTE	81	1.92	0.70	3.36*
	ACTE	75	1.43	0.50	

P*<0.05

To determine if there was statistical mean difference between AACTE and ACTE in research activities, independent *t*-test was also employed. The results in Table 10 depicted that the mean difference was significant (*t*= 3.36, df=88, p<0.05). This shows that research practice at AACTE was better than ACTE. This was perhaps the annual research conferences at AACTE were conducted for the seven years where as at ACTE for four years.

Table: 11 Paired *t*-test Result between Action and Applied Research Practiced by the Instructors

Research practice		N	$\bar{x}$	S	t-test
Pair 1	ACR	156	5.62	1.25	4.14*
	APR		2.62	0.62	

P*< 0.05

Paired *t*-test was employed to see the difference between action research and applied research practiced by the instructors at the colleges. The result in Table 11 portrayed that the mean difference was significant (t=4.14, df=58, $p<0.05$). This shows that instructors give more attention to action research than applied research at the colleges.

Table: 12 Descriptive Statistics on the Instructors' Research Practice in their Work Experience

Variables		**N**	$\bar{x}$	**S**
Field of study	Psychology and pedagogy	43	24.78	8.17
	Languages study	37	17.80	7.55
	Natural science	48	15.00	3.69
	Social science	28	17.20	5.69
	Total	**156**	**18.45**	**7.14**
Experience	One-five	89	17.90	13.63
	Six-ten	44	13.67	7.95
	Above ten	23	17.09	6.98
	Total	**156**	**16.33**	**9.76**
Training	Pre-service	49	16.10	8.59
	In-service	18	14.67	7.94
	Both pre and in service	85	14.64	3.78
	Total	**152**	**15.13**	**6.76**

Table 12 indicated that the descriptive statistics on research activity of teacher-researchers was measured using likert scales. The instructors were asked about their activities on research at the college. Among the teachers who have different levels of teaching experiences, fields of study, and research training measured using 6 items with five point likert scale where 1= Strongly disagree, 2= Disagree, 3= Undecided, 4= Agree and 5= Strongly agree. The maximum possible mean score on the items measuring research practice is 30 and the minimum score is 6. The middle mean score is 18. The mean of the variables were scored below 18 except in the field of psychology and pedagogy. This implies that the research activities of teacher-researchers at the colleges to be low accept the instructors of psychology and pedagogy. Accordingly, an attempt

was made to compare among the instructors' research practices using one way ANOVA in Table13.

Table: 13 Summary of ANOVA on the Instructors' Research Practice in their Work Experience

Variables	Sources of Variations	Sum of Squares	df	Mean Square	F	p
Field of study	Between Groups	511.14	3	170.38	4.16	0.01
	Within Groups	1474.76	36	40.97		
	Total	**1985.90**	**39**			
Experience	Between Groups	94.86	2	47.43	0.48	0.62
	Within Groups	2665.81	27	98.73		
	Total	**2760.67**	**29**			
Training	Between Groups	14.02	2	7.01	0.14	0.87
	Within Groups	1311.45	27	48.57		
	Total	**1325.47**	**29**			

P*<0.05

In Table 13 ANOVA was carried out to see if there was mean difference statistically significant in research practice among the overall means in different teaching experience, fields of study and research training at the colleges. The results depicted that except among the fields of study there was no statistical significant difference. The differences in the overall mean among the fields of study in research practice were found to be statistically significant ($F_{(3, 36)} = 4.16$, $P < 0.05$). Further post hoc comparison the mean difference scores among the fields of study using Tukey method indicated that there was significant mean difference in research activities in the field of psychology and pedagogical science than the other fields of study. In essence, the research activities in psychology and pedagogical science were better than the other fields of study. The mean difference scores in research practice in the field of languages, social and natural science study were not found to be significant. The differences in the overall mean instructors in research activities were not significant among the instructors who have different levels of teaching experience at the colleges ($F_{(2, 27)} = 0.48$, $P > 0.05$) and research training in different research

services training (F (2, 27) = 0.14, P>0.05). This implies that the instructors who have different levels of teaching experiences and research training taken in different levels have not brought any significance effect in their research practice at the colleges.

Table : 14 Independent *t*-test Result between BA and MA Research Practiced

Qualification		**N**	$\bar{x}$	**S**	**t-test**
Research practiced	BA	77	51.06	48.30	-0.64
	MA	79	51.94	33.26	

P*>0.05

To see whether there exists statistically significant mean difference between BA and MA in research activities at the colleges, independent t-test was also employed. The results in Table 14 revealed that the mean difference in both educational qualification was found to be insignificant (*t*= -0.64, df= 34, p>0.05). This means that instructors' educational qualification levels have no effect in their research activities at the colleges.

The instructors were also asked open ended questions to give reasons for the hinder engagements of research activities. The instructors reasoned out that lack of quality in research training and competency and deep know how to carryout research. Furthermore, lack of effective and practical updated research training was the other problems. Moreover, lack of fund and budget allocation, relevant facilities, attractive incentive and promotion were repeatedly mentioned. On the other hand, poor administration and management system, research culture, practice and update on research activities. Teaching and work load, time constraints, lack of commitment and initiation were the other challenges.

4.5.Quality of the Research Studies and Perceptions of Instructor-Researchers

To examine the level of satisfaction and perception of participants of research conference about the quality of the research studies presented at the research conference were measured using satisfaction and likert scales respectively.

Table 15: Descriptive Statistics about the Instructors' Satisfaction by the Overall Quality of the Research Studies Presented at the Conference

Variables		N	$\bar{x}$	S
Field of study	Psycho and pedagogy	43	16.08	2.07
	Languages study	37	16.83	5.99
	Natural science	48	17.09	4.53
	Social science	28	17.71	4.73
	Total	**156**	**16.83**	**4.40**
Experience	One-five	89	17.25	8.28
	Six-ten	44	19.50	6.67
	Above ten	23	13.00	5.44
	Total	**156**	**16.69**	**7.25**
participants	Often	95	18.00	6.94
	Some times	39	18.08	8.59
	Rarely	17	25.73	6.56
	Total	**154**	**20.46**	**8.08**

Table 15 indicated that the level of satisfaction of instructors about the quality of the research studies presented was measured using five satisfaction scales. The scale was used with 7 items and five level of satisfaction scales scored where 1=Not satisfied, 2= Minimal satisfied, 3= Undecided, 4= Satisfied and 5= Very satisfied. The instructors were asked about their satisfaction on the overall quality and performance of the research practiced and the overall values of the research studies in solving educational problems at the colleges. Accordingly, Table 14 depicted that the descriptive statistics were compared by their fields of study, levels of teaching experiences and participants at the research conference. Accordingly, the maximum possible mean score on the items measuring research practice is 35 and the minimum score is 7. The average mean score is also 21. Almost all the variables mean scores were below the average (21) except the rarely participants at the research conference. This signified that the teacher-researchers were not satisfied by the overall quality and performance of the research studies presented at the colleges.

Table 16: Summary of ANOVA about the Satisfaction of the Instructors by the Overall Quality of the Research studies Presented at the Conference

Variables	Sources of variables	Sum of Squares	df	Mean Square	F	P
Field of study	Between Groups	12.91	3	4.30	0.21	0.89
	Within Groups	780.92	38	20.55		
	Total	**793.83**	**41**			
Experience	Between Groups	248.29	12	124.15	2.58	0.09
	Within Groups	1539.25	32	48.10		
	Total	**1787.54**	**34**			
Participants	Between Groups	445.59	2	222.79	4.02	0.03
	Within Groups	1773.10	32	55.41		
	Total	**2218.67**	**34**			

P*<0.05

As can be seen from Table 16, the differences in the overall mean instructors' satisfaction by the overall quality and performance of the research studies were significant difference among the levels of participants of the research conference ($F_{(2, 32)} = 4.02$, $P< 0.05$). To identify in which mean(s) significantly differed from the variables post hoc comparison particularly, Tukey method was employed. The results showed that the rarely participants of the research conference were positively perceived by the overall quality of the research studies. The mean differences in instructors' perception about the quality of the research between the remaining participants of the research conference were not found to be significant. The mean difference in the overall mean teacher-researchers perception by the overall quality research were not significant among the fields of study ($F_{(3, 38)} = 0.21$, $P>0.05$) and levels of teaching experiences ($F_{(2, 32)} = 2.58$, $P>0.05$). From this we can deduce that the instructors in different fields of study and levels of teaching experiences were in the same way of perception by the overall quality of the research practiced and presented at the colleges.

Table: 17 Descriptive Statistics about the Perception of the Instructors by the Overall Quality of the Research Studies Presented at the Conference

Variables		N	$\bar{x}$	S
Field of study	Psychology and pedagogy	43	19.15	7.90
	Language studies	37	16.90	7.42
	Natural science	48	18.55	5.38
	Social science	28	20.60	5.99
	Total	**156**	**18.54**	**6.82**
Experience	One-five	89	21.20	5.77
	Six-ten	44	19.10	7.78
	Above ten	23	16.70	7.66
	Total	**156**	**19.00**	**7.25**
Training	Pre-service	49	16.85	7.18
	In-service	18	36.05	8.34
	Both pre and in-service	85	24.95	14.89
	Total	**152**	**25.95**	**13.17**

The major indicators for quality research are validity, reliability, triangulation and credibility of data sources. Besides, practicability and relevance of the research recommendation/findings are also used as indicators. To show the extent to which these indicators in place of the quality research practiced, 12 items were asked to the participants of the research conference with five level of likert Scale scored where 1= Strongly disagree, 2= Disagree 3=Undecided, 4= Agree and 5= Strongly agree. Accordingly, the descriptive statistics results from questionnaires filled in by participants of the research conference indicated in Table 17. The maximum and minimum possible mean scores are 60 and 12 respectively. However, the mean score is ranged from7-38. The mean average score is 36. Nearly all the mean scores by experience, research training and field of study were less than the average except in-service research training taken. This indicates that the instructor-researchers perceived that the research studies were not practiced based on the indicators of quality research. Furthermore, Table 18 presents the ANOVA on the participants' perception compared by experience, training and field of study about the quality of the research ratings.

Table 18: Summary of ANOVA about the Perception of the Instructors by the Overall Quality of the Research Studies Presented at the Conference

Variables	Sources of variables	Sum of Squares	df	Mean Square	F	P
Field of study	Between Groups	103.67	3	34.56	0.74	0.54
	Within Groups	3103.70	66	47.03		
	Total	**3207.37**	**69**			
Experience	Between Groups	202.80	2	101.40	1.99	0.15
	Within Groups	2899.20	57	50.86		
	Total	**3102.00**	**59**			
Training	Between Groups	3716.40	2	1858.20	16.26	0.00
	Within Groups	6514.45	57	114.29		
	Total	**10230.85**	**59**			

P*<0.05

Table 18 revealed that the difference in the overall means instructors' perceptions regarding the quality of the research studies practiced were not significant among the instructors who have different levels of teaching experiences ($F_{(2, 57)} = 1.99$, $P>0.05$) and fields of study ($F_{(3, 66)} = 0.74$, $P>0.05$). From this, we can deduce that the teacher-researchers believed that the research studies were not practiced based on the indicators of quality research. However, significant variations were found among the research training taken in different service training ($F_{(2, 57)} = 16.26$, $P<0.05$). The post hoc comparison using Tukey method showed that there were significant mean differences among the instructors who received research training in different service training. The instructors who received research training in-service reported that the researchers used appropriate indicators of quality research in their research practice. The mean differences in instructors' perceptions about the indicators of quality research practiced by the researchers between the remaining who received training pre-service, and in both pre and in-service were not found to be insignificant.

Table : 19 Independent *t*-test Result between BA and MA Difference on the Quality of Research Studies

Quality of research		N	$\bar{x}$	S	t-test
Qualification	BA	77	24.82	7.32	-1.72
	MA	79	28.51	11.15	

P*>0.05

Besides, *t*-test was employed to determine if there was statistical mean difference between BA and MA instructors about the quality of the research studies. The results in Table 19 depicted that the mean difference was not statistically significant (*t*= -1.72, df=73, p>0.05). This implies that the instructors who have different educational levels were not different concerning the quality of the research studies practiced and presented at the colleges.

Table: 20 Independent *t*-test Result between AACTE and ACTE Difference about the Quality of Research Studies

Quality of research		N	$\bar{x}$	S	t-test
Colleges	ACTE	75	23.33	6.56	-1.85
	AACTE	81	26.72	4.17	

P*>0.05

Independent *t*-test was also employed to determine if there was statistical mean difference in relation to the quality of the research studies practiced/ presented between AACTE and ACTE. The results in Table 20 denoted that the mean differences were not statistically significant (*t*= -1.85, df=34, p>0.05). This implies that there is no statistical mean difference regarding the quality of research practiced/presented between the two colleges.

Table: 21 Paired *t*-test Result between Action and Applied Research quality Practiced by the Instructors

Quality of research		N	$\bar{x}$	S	t-test
Pair1	Quality of ACR	156	25.10	6.44	-4.15
	Quality of APR		28.90	10.95	

P*<0.05

Paired *t*-test was employed to see if there is quality difference between action and applied research practiced by the instructors at the colleges. The result in Table 21 indicated that the mean difference was marginally significant (t=-4.15, df=32 $p<0.05$). This shows that the quality of applied research practice is better than action research.

The respondents were asked open-ended questions to state the quality and values of the research studies in education. Based on their responses, most of the respondents were in doubt about the quality of the research studies. Except a few research studies, the rest were poor quality work because researchers did not take time to collect data in the field of the study. Since there was no implementation of research studies the values were to be low. They are poor in both quality and values. As a result, the research studies have little contributions in quality education. Only the participant at the research conference could share and discuss on the issue. Largely, the research studies were paper values and doing for nothing practical values in education. The research users did not benefit from the research studies. In general, the participants of the research conference believed that the quality and value of the research studies were at low status.

The instructors were also asked to give reason out for the low quality of the research studies. The instructors reasoned out that most of the research studies were carried out for the sake of result oriented, participation and to gain money, so researchers did not give attention to quality base work. Moreover, the researchers did not purposefully done research. Hence, the research studies were not addressed validity and reliability. Further, they did not collect data using different instruments from different concerned subjects. Since researchers collected inadequate data, the findings and the quality were doubtful. Some of the research studies were repeatedly presented at the research conference without updating. Other researchers might not collect data actually in the

field of the study and some researches were homemade. Furthermore, the RPOs and HDLs have not related qualification profession and specialization.

The study also revealed that the major barriers facing teachers to be quality in research works were the absence of attractive incentives, facilities, and fund. Mainly, lack of effective and quality research training were the other problem.

4.6. The Instructor-Researchers' Perceptions and Implementation about the Research Studies

Another important issue examined in this study was about the implementation of research studies. Therefore, further analysis is carried out to examine if research studies were implemented. In line with this, instructors were asked using effectiveness and likert scales and the results are presented below.

Table: 22 Descriptive Statistics about the Perception of the Instructors in the Implementation of Research Studies

Variables		**N**	$\bar{x}$	**S**
Experience	One-five	89	24.84	11.56
	Six-ten	44	27.00	17.74
	Above ten	23	20.16	13.48
	Total	**156**	**24.00**	**14.58**
Field of study	Psychology and pedagogy	43	23.64	12.05
	Language studies	37	18.24	12.85
	Natural science	48	17.44	6.86
	Social science	28	18.08	9.11
	Total	**156**	**19.35**	**10.63**
Training	Pre-service	49	21.84	10.49
	In-service	18	19.24	8.13
	Both pre and in service	85	21.44	11.50
	Total	**152**	**20.84**	**10.07**

The perception of instructors about the implementation of the research studies was measured using effectiveness scales. The scale was measured using 15 items that concerned about their perceptions in the effectiveness of implementation the research studies with five levels of effectiveness scales scored where 1=Not effective, 2= Minimal effective, 3= Undecided, 4= Effective and 5= Very Effective. In order to make clear, first descriptive statistics were made in Table 22 based on the different levels of teaching experience, fields of study and research training given to instructors. Hence, the maximum possible mean score on the fifteen items is 75 and the minimum possible mean score is 15. The middle score is also 45. All the mean scores by years of work experience, fields of study and training were below 45. This implies that the instructors perceived that the research studies were not implemented. Accordingly, Table 23 presents the ANOVA on the participants' perception about the implementation of the research studies ratings.

Table: 23 Summary of ANOVA about the Perception of the Instructors on the Implementation of Research Studies

Variable	Sources of variation	Sum of Squares	df	Mean Square	F	P
Experience	Between Groups	611.28	2	305.64	1.46	0.24
	Within Groups	15118.72	72	209.98		
	Total	**15730.00**	**74**			
Field of study	Between Groups	622.43	3	207.48	1.88	0.14
	Within Groups	10570.32	96	110.11		
	Total	**11192.75**	**99**			
Training	Between Groups	98.00	2	49.00	0.48	0.62
	Within Groups	7404.08	72	102.83		
	Total	**7502.08**	**74**			

$p>0.05$

Having stated the descriptive statistics in Table 22, one way ANOVA was carried out to see if there was statistical significant difference among the means of the instructors who have different levels of teaching experiences, fields of study and research training. As the results depicted in

Table 23, there were no statistical significance difference at 0.05 among the different levels of teaching experience ($F_{(2, 72)} = 1.46$, $P>0.05$), fields of study ($F_{(3, 96)} = 1.88$, $P>0.05$) and research training ($F_{(2, 72)} = 0.48$, $P>0.05$). No significant variations were found among the instructors' perception about the implementation of the research studies at the colleges. This means that the instructors who have different levels of teaching experience, fields of study and research training perceived that they were in the same way about the implementation of the research studies.

Table: 24 Descriptive Statistics on the Perception of the Instructors about the Implementation of Research Studies

Variables		**N**	$\bar{x}$	**S**
Field of study	Psychology and pedagogy	43	19.94	7.44
	Languages studies	37	19.81	10.49
	Natural sciences	48	17.05	7.17
	Social sciences	28	15.09	8.44
	Total	**156**	**17.70**	**8.45**
Age	35 and below	91	17.29	7.83
	36-47	54	19.88	8.29
	48 and above	11	15.95	8.09
	Total	**156**	**17.51**	**8.09**
Experience	One-five	89	15.76	6.68
	Six-ten	44	18.69	8.89
	Above ten	23	18.50	8.39
	Total	**156**	**17.71**	**8.02**

The perception of instructors about the implementation of the research studies was also measured using likert scales. The scale was measured using 12 items that concerns about their perceptions in the implementation of research studies with five levels of likert scale where 1= Strongly disagree, 2= Disagree, 3= Undecided, 4= Agree and 5= Strongly agree. Descriptive statistics were made in Table 24 among the different fields of study, age category and experience of instructors at the colleges. Hence, the possible score on the items measuring perceptions were 60, 36 and 12 scores of maximum, middle and minimum respectively. Nevertheless, all the mean

scores were below the middle. This signifies that teacher-researchers perceived that the carried out research studies were not put into action. Furthermore, Table 25 presents ANOVA to compare the variables.

Table: 25 Summary of ANOVA on the Perception of the Instructors about the Implementation of Research Studies

Variables	Sources of variation	Sum of Squares	df	Mean Square	F	P
Field of Study	Between Groups	315.98	3	105.33	1.50	0.22
	Within Groups	5114.15	66	70.01		
	Total	**5430.13**	**69**			
Age	Between Groups	143.51	2	71.76	1.10	0.34
	Within Groups	3388.23	57	65.16		
	Total	**3531.75**	**59**			
Experience	Between Groups	93.35	2	46.68	0.72	0.49
	Within Groups	3378.00	57	64.96		
	Total	**3471.34**	**59**			

P*>0.05

The results of instructors' perception about the implementation of research studies by fields of study ($F_{(3, 66)} = 1.50$, $P>0.05$), age category ($F_{(2, 57)} = 1.10$, $P>0.05$) and years of work experience ($F_{(2, 57)} = 0.72$, $P>0.05$) were not significantly different at 0.05. This implies that the instructors' perception about the implementation of research studies found in the same way.

Table: 26 Descriptive Statistics on the Instructors' Implementation of Research Studies

Variables		N	$\bar{x}$	S
Field of study	Psychology and pedagogy	43	20.20	13.65
	Languages study	37	14.73	14.81
	Natural science	48	13.73	6.65
	Social science	28	18.13	6.13
	Total	**156**	**16.70**	**11.07**
Experience	One-five	89	17.40	15.92
	Six-ten	44	15.07	11.26
	Above ten	23	17.00	8.52
	Total	**156**	**16.49**	**12.05**
Participation	Often	95	17.87	6.24
	Sometimes	39	17.13	12.59
	Rarely	17	12.60	10.08
	Total	**154**	**15.87**	**10.03**

Ten items were asked to the instructors concerning to what extent they implemented research studies with five levels of likert scale scored where 1= Strongly disagree, 2= Disagree, 3= Undecided, 4= Agree and 5= Strongly agree. In Table 26 an attempt was made to show that the descriptive statistics among the different fields of study, levels of teaching experience and participants of the research conference. Hence, the possible maximum, middle and minimum score on the items measuring items were 50, 30 and 10 respectively. Nonetheless, all the mean scores were below the middle. For this reason, teacher-researchers did not change the carried out research studies into practice. Accordingly, Table 27 presents the ANOVA on instructors' responses.

Table: 27 Summary of ANOVA on the Instructors' Implementation of Research Studies

Variables	Sources of variation	Sum of Squares	Df	Mean Square	F	P
Field of study	Between Groups	404.60	3	134.87	1.11	0.35
	Within Groups	6826.00	56	121.89		
	Total	**7230.60**	**59**			
Experience	Between Groups	46.71	2	23.36	0.16	0.86
	Within Groups	6340.53	46	150.97		
	Total	**6387.24**	**49**			
Participation	Between Groups	244.13	2	122.07	1.23	0.30
	Within Groups	4185.07	46	99.64		
	Total	**4429.20**	**49**			

P*>0.05

The overall mean scores of the instructor-researchers' implementation of research studies in the three variables did not differ from each other. The one way ANOVA results indicated in Table 27 revealed that the difference were not significant at 0.05 among the fields of study, levels of experience and participants of research conference in ($F_{(3, 56)} = 1.11$, $P>0.05$), ($F_{(2, 46)} = 0.16$, $P>0.05$) and ($F_{(2, 46)} = 1.23$, $P>0.05$) respectively. In essence, the instructors who have different fields of study, levels of teaching experience and participation of the research conference were equivalent to the implementation of research studies.

Table: 28 Independent *t*-test between BA and MA in their Implementation of Research studies

Implementation		N	$\bar{x}$	S	t-test
By qualification	BA	77	25.43	8.08	-1.97
	MA	79	29.97	12.13	

P*>0.05

Independent *t*-test was also used to see the difference between BA and MA in their implementation of research studies. The results in Table 28 revealed that the mean difference in

both qualification levels between BA and MA were found to be insignificant (*t*= -1.97, df=52, P>0.05). This denoted that instructors' educational levels have little or no effect in their implementation of research studies at the colleges.

Table: 29 Independent *t*-test Result between AACTE and ACTE Difference about the Implementation of Research Studies

Implementation		N	$\bar{x}$	S	t-test
Colleges	ACTE	75	23.07	6.38	-2.09
	AACTE	81	27.78	9.81	

P*>0.05

To see the difference between AACTE and ACTE about the implementation of research studies, independent *t*-test was employed. The results in Table 29 shows that the mean difference in both colleges were found to be insignificant (*t*=-2.09, df=58, P>0.05). This denoted that there was no significant difference between the two colleges about the implementation of research studies.

Table: 30 Paired *t*-test Results in Implementing between Action and Applied Research

Implementation		N	$\bar{x}$	S	t-test
Pair 1	implementation of ACR	156	49.73	37.90	2.21
	implementation of APR		46.02	38.16	

P*<0.05

Paired *t*-test was also employed to see the difference between action and applied research implemented by the instructors at the colleges. The result in Table 30 indicated that the mean difference was significant (*t*=2.21 df=44, p < 0.05). This shows that action research is more implemented than applied research at the colleges. This perhaps since the findings of action research is directly implemented by the practitioner-researchers.

Instructors were also asked open ended question to describe the reasons for challenges of implementation of research studies. The major reason was lack of training how to implement

research studies. On the other hand, lack of collaborative work among research stakeholders especially, the colleges, RPOs, researchers, and recommended stakeholders. Moreover, lack of attention the policy makers were the other problem. Poor quality work of research and poor administration and management system were mentioned by the instructors. As stated earlier, lack of commitment and initiation, integration between policy makers and research stakeholders were the other obstacles. Inadequate facilities and materials, teaching and workload and time constraints were common problems. Lack of incentive, fund and budget allocation was also strongly mentioned.

4.7. The Extent of Research Studies in Solving Educational Problem

The main purpose of the educational research is to find out solutions of educational problems**.** In line with this, instructor-researchers were asked about the extent of the research studies in solving educational problems**.** Accordingly, the responses of the instructors are presented in Table 31.

Table: 31 Descriptive Statistics about the Extent of Research Studies in solving educational Problem

Variables		**N**	$\bar{x}$	**S**
Experience	One-five	89	10.67	7.38
	Six-ten	44	13.11	8.43
	Above ten	23	14.43	3.86
	Total	**156**	**12.80**	**6.54**
Participation	Often	95	15.25	12.48
	Sometimes	39	10.33	5.91
	Rarely	17	10.50	5.80
	Total	**154**	**12.09**	**8.77**
Field of study	Psychology and pedagogy	43	15.75	7.78
	Languages studies	37	10.22	8.89
	Natural science	48	13.93	6.16
	Social	28	13.29	5.65
	Total	**156**	**13.51**	**7.02**

The main purpose of the educational research is to solve problem**.** Therefore, seven items were asked to the instructors concerning to what extent the research studies solve educational problems with the five levels of likert scale where 1= Strongly disagree, 2= Disagree, 3=Undecided, 4= Agree and 5= Strongly agree. Table 31 showed that the descriptive statistics was made among the different fields of study, different levels of teaching experience and participants of the research conference. Accordingly, the possible maximum mean score is 35, the middle is 21 and the minimum score is 7. However, all the mean scores were below the middle. This implies that the carried out research studies were not problem solver. Thus, Table 32 presents the ANOVA on instructors' ratings.

Table: 32 Summary of ANOVA about the Extent of Research Studies in Solving Educational Problem

Variables	Sources of variation	Sum of Squares	df	Mean Square	F	P
Experience	Between Groups	92.62	2	46.31	1.09	0.35
	Within Groups	1360.98	32	42.53		
	Total	**1453.60**	**34**			
Participants	Between Groups	182.99	2	91.50	1.20	0.31
	Within Groups	2431.75	32	75.99		
	Total	**2614.74**	**34**			
Field of study	Between Groups	160.65	3	53.55	1.09	0.36
	Within Groups	2205.59	45	49.01		
	Total	**2366.25**	**48**			

P*>0.05

The one way ANOVA results, as indicated in Table 32 confirmed that the differences were not significant at 0.05 among the instructors having different levels of teaching experience ($F_{(2, 32)}$= 1.09, P>0.05), participants of the research conference ($F_{(2, 32)}$ 1.20, P>0.05) and fields of study($F_{(3, 45)}$ = 1.09, P>0.05). This signifies that instructors who have different levels of teaching experience, fields of study and participation at the research conference were in same way in solving educational problems.

Table : 33 Independent *t*-test Result between BA and MA in Solving problem

Problem solving		N	$\bar{x}$	S	t-test
By qualification	BA	77	23.95	7.48	-1.69
MA	MA	79	28.71	10.51	

P*>0.05

To see whether there exists statistically significant difference between BA and MA in solving educational problems of the research studies, *t*-test was employed. The results in Table 33 depicted that the mean difference in both cases by instructors of different educational qualification was found to be insignificant at 0.05 (*t*= -1.69, df= 40, p>0.05). This also denoted that the research studies have little or no effect to solve problems.

Table: 34 Independent *t*-test Result between AACTE and ACTE in Solving problem

Solving		N	$\bar{x}$	S	t-test
Colleges	ACTE	75	24.78	7.84	-1.85
	AACTE	81	29.08	4.74	

P*>0.05

Independent *t*-test was also employed to see whether there exist statistically significant differences in solving educational problems between the two colleges. The results in Table 34 portrayed that the mean difference in both colleges were found to be insignificant at 0.05 (*t*= -1.85, df= 19, p>0.05). This denoted also there was no significant difference in solving educational problems between the colleges.

Table 35: Paired *t*-test in Solving Educational Problem between Action Research and Applied Research Studies

Solving Problem		N	$\bar{x}$	S	t-test
Pair 1	ACR	156	50.78	39.22	-7.25
	APR		52.67	39.56	

P*<0.05

Paired *t*-test was also used to see the difference between action and applied research studies in solving educational problems at the colleges. The result in Table 35 specified that the mean difference was not significant (*t*= -7.25, df=8, p = 0.00). This showed that there was no significant difference in solving educational problem between action research and applied research at the colleges.

Multiple Regression Analysis

As stated earlier, the main purpose of the educational research is solving educational problems**.** Therefore, the analysis below presents the regression in solving educational problem. The dependent variable was solving problem, because the ultimate purpose of educational action and applied research is to find out solutions. The predictors were research practice, quality and implementation of research studies. In essence, these were the variables of the research studies which have impact on solving educational problem. Stepwise multiple regression method was chosen to analyze the relationship between the criterion and predictor variables. The inter-correlation matrix on the four variables is first presented in Table 39.

	implementation	quality	research practice	problem solving
Implementation	1.00	0.96	0.97	0.01*
Quality of the research		1.00	0.97	-0.17*
Research practice			1.00	-0.08*
Problem solving				1.00

Table 36: Correlation Matrix among the Predictor and Criterion Variable

P*<0.05

As observed from Table 36, the correlation coefficients among the criterion and predictor variables were all significant at α = 0.05. Among the correlation coefficients of criterion and predictor variables were observed between implementation of research studies and problem solving (r = 0.01, p < 0.05) followed by research practice (r = -0.08, p < 0.05). The correlation coefficient between quality of research practice and problem solving was observed (r = -0.17, p < 0.05

Table 37: Multiple Correlation Coefficients and Percentage of Variances Explained by Implementing, Quality Research and Research Practice

Predictors	R	R Square	Adjusted R Square	S. E of the Estimate	R Square Change
Implementing research	0.42	0.18	0.15	0.70	0.18
Quality of research	0.51	0.26	0.24	0.62	0.09
Research practice	0.54	0.29	0.27	0.55	0.03

P* < 0.05

As can be observed from Table 37, step wise multiple regression analysis indicated that implementing of research studies was the best predictor of problem solving accounting for 18%. The second best predictor was quality of the research studies accounting for 9% and the last predictor was research practice the variance accounted for account the model only 3%

Table 38: Summary of ANOVA for the Multiple Regression Analysis

Variables entered	Sources of variance	Sum of Squares	df	Mean Square	F	P
Implementing research studies	Regression	2.97	1	2.97	6.01	0.00
	Residual	13.83	154	0.49		
	Total	**16.80**	**156**			
Implementing and Quality of research studies	Regression	6.12	1	6.12	16.03	0.00
	Residual	10.68	154	0.38		
	Total	**16.80**	**156**			
Implementing, Quality of research and Research practice	Regression	7.13	1	7.13	23.46	0.00
	Residual	4.87	154	0.30		
	Total	**12.00**	**156**			

P* < 0.05

Table 38 shows that the stepwise regression in the first step entered implementing research studies and it was found significant in solving problem ($F_{(1, 154)} = 6.01$, $p < 0.05$). In the second step the model entered implementing and quality of research studies was found to be significant predictor in solving problem ($F_{(1, 154)} = 16.03$, $p < 0.05$). The last predictor of the stepwise regression of the three variables were also significant in solving problem ($F_{(1, 154)} = 23.46$, $p < 0.05$).

Table: 39 Regression Coefficients of the Predictor Variables

Predictor of the Variables	Unstandardized Coefficients		Standardized Coefficients	*t-test*	P
	B	SE	β		
(Constant)	2.284	.235		9.702	0.00
Implementing of research	-0.009	.004	-.420	-2.452	0.00
(Constant)	2.400	.188		12.796	0.00
Quality of research	-.012	.003	-.603	-4.004	0.00
(Constant)	2.866	.221		12.963	0.00
Research practice	-.017	.004	-.771	-4.843	0.00

P* < 0.05

As can be seen in Table 39 the regression model when implementing research studies was used as the predictor $\overline{Y}$ = 2.284 + - 0.009X_1 where X_1 is the implementing research studies. The coefficient of regression for this model was significant (*t* = -2.452, p < 0.05). The combination of quality of the research total scores by the stepwise regression produced the prediction model of $\overline{Y}$ = 2.400 + -0.009X_1 +- 0.012X_2, where X_2 is quality of research. The coefficients of regression for this model were significant (*t* = -2.452 and -4.004, p < 0.05 respectively). At the third step, the stepwise regression produced a model for predicting problem solving by the combination of the three predictor variables with a prediction model of $\overline{Y}$ = 2.866 +- 0.009X_1 + - 0.012X_2 + - 0.017X_3, where X_3 is the research practice. The regression coefficients for this model were significant (*t* = -2.452, p < 0.05, t = -4.004, p < 0.05 and *t* =- 4.843, p < 0.05 respectively). In essence, the model selected implementing research studies as the best predictor, followed by the quality of research studies as the second best predictor, and research practice as the third best predictor.

4.8. Document Analysis

The main purpose of the document analysis is to examine the quality of the research papers presented at the research conference. In addition, it is intended to see the extent of implementation of action research. The document analysis of the research paper is analyzed in terms of selecting the main data and data display using matrix.

4.8.1 Analysis of Action Research Paper

Table: 40 Implementation and Quality Indicators of Action Research Case One

Case	Themes		Categories
1. Improving the Way of Giving feedback in English use IV Third Year Students at ACTE	The research problem		SMART . Workable/solvable
	Cycles of implementation		Uncertain cycle . No timetable On students only .Two weeks
	Stages of action		No re-planning . No re- acting Relatively evaluating
	Validity	Internal	No quotation . Not certain sample Questionnaire interpreted No rich explanations of document and interview
		External	Less reasonable
	Reliability	Internal	Questionnaire (4 closed) . Interview(no item) .No pilot . Document analysis No preliminary study
		External	Not sure
	Triangulation	Data collected from	Students only
		Qualitative & quant	Relatively both
		Methods used	Only descriptive
		Team Vs alone	Alone
	Credibility	Thickness of data	Not sure
	Methods of analysis	Qualitative	Words , but no themes, patterns, matrix, category
		Quantitative	Percentage only
	Appendix	Attachment	Only questionnaire but not interview and document
		Validity Measure	Not

As disclosed in Table 40, the title was concerned with improving the ways of giving feedback in English IV course. The practitioner-researcher tried to implement on the students instead of improving the ways of giving feedback of the teachers. The action taken by the practitioner-researcher on the students was not relevant. The researcher could have improved the ways of giving feedback of instructors. Although the research problem was SMART and solvable, the action taken was not yet implemented based on cyclic way and timetable. Furthermore, re-planning and re-acting of the action research were not yet implemented in the real situation. For more relevance, data should have been collected from the English instructors. Furthermore, the practitioner-researcher did not use quotation, pilot study and matrix. Moreover, the practitioner did not conduct preliminary study about the document analysis. There was no sufficient explanations and description of the qualitative data. The number of items of questionnaire was less and there was no attachment of interview and document in the appendix. Mainly, the validity

measuring of the items was doubtful. In fact, it could be difficult to judge the adequacy and relevance of the data collected. The relevance of the action taken in light of the research problems was uncertain. Therefore, it is hard to say that the way of giving feedback was improved and solved by the action taken in a real situation.

Table: 41 Implementation and Quality Indicators of Action Research Case Two

Cases	Themes		Categories
2.In a specific number of schools offering education to grade 5-8 students, there is little evidence of student centered learning	The research problem		Not SMART . Not workable/solvable
	Cycles of implementation		Not cyclic . No timetable Directors and vice . Not more than one day
	Stages of action		No re-planning, monitoring, acting & evaluating
	Validity	Internal	Quoted .Uncertain sample and sampling Results somewhat interpreted
		External	Not reasonable
	Reliability	Internal	Observation (4 items non participant) .No pilot Questionnaire(4 open-ended and 4 closed-ended)
		External	Uncertain
	Triangulation	Data collected from	Students only
		Qualitative & quant	More/ less both
		Methods used	Descriptive only
		Team Vs alone	Teams
	Credibility	Thickness of data	Uncertain
	Methods of analysis	Qualitative	Words, but no themes, patterns, matrix, category
		Quantitative	Percentile and chart
	Appendix	Attachment	Attached
		Validity Measure	Not

To solve a problem and to improve situation, the identification of SMART and workable research problem is the first case in action research. However, the title of the research problem in Table 41 shows that in a specific number of schools offering education to grade 5-8 students, there is little evidence of student centered learning. This title of action research problem was not SMART and not solvable research problem. The research problem was not specific and insignificant time was taken to implement the proposed action. The time taken to implement the activity in a cyclic way was not reasonable. Beside to this, the report did not indicate re-planning, monitoring, re-acting and evaluating actions. The proposed action was not yet actually implemented in a cyclic way in terms of action plans and action taking. The practitioner-researchers developed neither possible solution nor implemented. It was also doubtful the appropriateness measurement of items. The results of the intervention data were not collected in

light of how the action has been successfully taken. The action steps were not undertaken in the light of learner centered. In addition, the action taken was on directors but it should have been taken on teachers. In fact, it may be very difficult to judge the relevance of the action taken and the introducing student centered learning at the schools by the action taken. Unanimously, this is not action research because action was not taken.

Table: 42 Implementation and Quality Indicators of Action Research Case Three

Cases	Themes		Categories
3. Improving female students' performance on the course selfleggio aesthetics 3rd year students.	The SMART of research problem		Not sure .Performance may not achieve in a short time
	Cycles of implementation		Not cyclic . No timetable Students . Not specified activities
	Stages of action		Less action planning, action taking No evaluating new action
	Validity	Internal	No adequate data . Available sampling Questionnaire only interpreted Test results not analyzed and interpreted
		External	Conclusion may not worthy Less degree of confidence
	Reliability	Internal	Questionnaire(no items) Test(no items) .No pilot
		External	Not sure
	Triangulation	Data collected from	Students
		Qualitative & quant	Only quantitative
		Methods used	Descriptive only
		Team Vs alone	Two practitioners
	Credibility	Thickness of data	Uncertainly
	Methods of data analysis	Qualitative	No
		Quantitative	Percentage only
	Appendix	Attachment	No attachment
		Validity Measure	Not sure

The need of cyclic implementation and collecting concrete evidence to solve problem and improve situation in action research is quite clear. However, according to Table 42, the cyclic implementation and stages of action research were not properly implemented to improve female students' performance in the course. The SMART of the research problem is doubtful because the performance of female students may not be improved immediately. From the report evidenced those less action planning, action taking and evaluating action were not realized in the real classroom course. No action was taken in a cyclic way based on the scheduled time. The report also indicated that there was no pilot test conducted. Furthermore, the analysis and interpretation of test results were not included in the report. The practitioner-researchers should

have analyzed and compared the result of tests before and after implementing the action strategy. Besides, they could have used classroom observation to triangulate the questionnaire. The thicknesses of descriptions of data were not yet reasonable. Also appendix was not included in the report. Therefore, the credibility of the data was another reason to minimize the required level of confidence. This implies that the action research was not done properly in the field of study to improve female students' performance in the course. For this reason, it is difficult to conclude the relevance of the action taken in the real life classroom.

Table: 43 Implementation and Quality Indicators of Action Research Case Four

Cases	Themes		Categories
4.Making 3rd year biology students use participatory group discussion during analytical chemistry-1 class II semester	The research problem		SMART . workable/solvable
	Cycles of implementation		Not cyclic . No timeline Students . One semester
	Stages of action		No re-planning .No re- acting . Not evaluating
	Validity	Internal	No description . Available sample Results not interpreted . No analysis part
		External	Less degree of confidence
	Reliability	Internal	Observation only
		External	Not sure
	Triangulation	Data collected from	Students only
		Qualitative & quant	May be qualitative
		Methods used	Not sure
		Team Vs alone	Alone
	Credibility	Thickness of data	Not sure
	Methods of data analysis	Qualitative	No analysis
		Quantitative	No analysis
	Appendix	Attachment	No attachment
		Validity Measure	Not sure

The evidence obtained from Table 43 indicated that the identified research problem was SMART and solvable and the time allocated was also quite clear. But the report did not yet indicate the necessary cyclic implementation of re-planning, evaluating and acting of the action research. The stage of action research was hardly carried out till the students' participation was improved. Moreover, the data was not analyzed and interpreted. The sample includes all students instead of selecting the low participants in group discussion. The researcher used one instrument i.e., only observation and inadequate data by single researcher. The thickness of the data was also unreasonable. The report did not include the analysis part and appendix. Moreover, the practitioner recommended to other persons instead of solving the problem himself. Therefore, it

is hard to say the participation of students was improved and changed by the action taken. A gap was apparent between how it was being implemented and how it was being delivered to improve the practice using the cyclic way of action. To conclude the required degree of confidence and the relevance of the action were not reasonable.

Table: 44 Implementation and Quality Indicators of Action Research Case Five

Case	Themes		Categories
5. Strengthening the awareness about safety rules on biology third year students of Abbyi-Adi teacher education	The research problem		SMART . workable/solvable
	Cycles of implementation		Not cyclic . No timetable Students . 4 days only
	Stages of action		No re-planning. No re- acting . Partially evaluated
	Validity	Internal	No quotation . Randomly selected Relatively interpreted . Not adequate data
		External	Less reasonable confidence
	Reliability	Internal	Questionnaire only .No pilot
		External	Uncertain
	Triangulation	Data collected from	Students only
		Qualitative & quant	Quantitative only
		Methods used	Descriptive
		Team Vs alone	Alone
	Credibility	Thickness of data	Not thick
	Methods data analysis	Qualitative	No
		Quantitative	Percentile only
	Appendix	Attachments	No attachment
		Validity Measure	Not sure

As presented in Table 44, the actual cyclic implementation, re-planning and re-acting were not yet implemented about the safety rule awareness of students even though the title of action research was SMART. Furthermore, the researcher collected data only after the implementation. The practitioner used only questionnaire by selecting randomly. This was not expected to be done by a practitioner-researcher of action research. There was no readjustment of timetable in the light of safety rule experience. The practitioner-researcher should have collected evidence before implementing to differentiate the students who were not aware of safety rules. As the report indicated 4 days were taken to carry out over the entire project. The process did not continue until the problem was resolved. Pilot test was not considered too. The appendix was also not attached to the report. The practitioner-researcher could have used observation and interview to triangulate and to collect relevant data instead of using only questionnaire. Besides to this, the adequacy and credibility of the data were not reasonable for the required conclusion.

Table: 45 Implementation and Quality Indicators of Action Research Case Six

Cases	Themes		Categories
6. Improving the ways of writing action research project proposal in practicum IV students at mybless elementary	The research problem		SMART . Workable/solvable
	Cycles of implementation		Not cyclic . No timeline .Students . 5 days
	Stages of action		No re-planning . No re- acting . Evaluation only
	Validity	Internal	No quotation . All included . Relatively interpreted
		External	Less degree of confidence
	Reliability	Internal	Test . Interview . Observation
		External	Uncertain
	Triangulation	Data collected from	Students only
		Qualitative & quant	More or less both
		Methods used	Qualitative descriptive
		Team Vs alone	Alone
	Credibility	Thickness of data	More or less thick
	Methods of data analysis	Qualitative	Words, but themes, patterns, matrix , category
		Quantitative	Mean and percentile
	Appendix	Attachments	Attached
		Validity Measure	More or less

The evidence obtained from the report in Table 45 indicated that the selected research problem was SMART and solvable. But the report did not yet indicate the necessary cyclic implementation, re-planning, evaluating and re-acting of the action research. It is hard to say that the students improved the ways of writing action research proposal by the action and time taken. Furthermore, actions were not taken in a cyclic way to improve the situation. Since the practitioner-researcher collected data only from students by single practitioner-researcher, it is difficult to judge the credibility of the data. The practitioner should have used document analysis and the students' proposal. Therefore, it is hard to say that the way of writing action research proposal of students was improved and changed by the action taken completely.

Table: 46 Implementation and Quality Indicators of Action Research Case Seven

Case	Themes		Categories
6. Introducing 3rd year aesthetics department students with the different effective study strategies in Abbyi-Adi college.	The research problem		More or less SMART . Relatively solvable
	Cycles of implementation		Not cyclic . No timetable .Students . 6 days
	Stages of action		No re-planning . No action re-taking Not action evaluating
	Validity	Internal	No quotation .Randomly Results interpreted .Not rich description
		External	Less reasonable
	Reliability	Internal	Observation (8 items) . Interview (6 items).
		External	Not sure
	Triangulation	Data collected from	Students only
		Qualitative & quant	Quantitative only
		Methods used	Descriptive
		Team Vs alone	Alone
	Credibility	Thickness of data	Not thick
	Methods of data analysis	Qualitative	Word, but no themes, patterns, matrix , category
		Quantitative	No
	Appendix	Attachment	Attached
		Validity Measure	May not be measured appropriately especially the observation items

As can be seen in Table 46, the report of action research showed that the practitioner used only qualitative data. The data were collected only from the students inadequately. With the intention of sample, the students were randomly selected, but this was not expected as practitioner-researcher of action research. Furthermore, the action research was done in a descriptive method by single researcher. The researcher did not capture rich data and description. Moreover, the researcher did not use validity measuring of items. The researcher did not consider the triangulation of the data. This might to reduce for the level of confidence required in action research practice. Moreover, the actual practice of this action research implementation was minimal especially, the action re-planning, action taking and action evaluating. The practicability of the action strategies was also unreasonable. The effective study strategies were not specified clearly. As a result, it is not easy to judge the quality of action research without actual implementation of possible solutions based on concrete evidence. To this effect, the effective strategy of study was not introduced properly yet.

Table: 47 Implementation and Quality Indicators of Action Research Case Eight

Case	Themes		Categories
በአማርኛ ስነ መጽሐፍ / ፈተና የተጠቀመዉ ያህልመጠኑ ያለማካተት መነሻ እና ተግባራዊዉ ተደረገ ው የ ጥናቱ ሃሳብ በ አጸዳ መሻሻሪ ከለጅ	The research problem		Relatively SMART . More/Less solvable
	Cycles of implementation		Not re- cyclic . No timeline On students . Two week
	Stages of action		No action re-planning .Less action taking Not evaluating
	Validity	Internal	Quoted . Available sample No sufficient explanations . Relatively interpreted
		External	Uncertain
	Reliability	Internal	Questionnaire (8 semi-structured) . No pilot Interview (6 open-ended) . Test
		External	Uncertain
	Triangulation	Data collected from	Students only
		Qualitative & quant	Relatively both
		Methods used	Only descriptive
		Team Vs alone	Alone
	Credibility	Thickness of data	Relatively
	Methods data analysis	Qualitative	Words, no themes, patterns, matrix, category
		Quantitative	Percentage only
	Appendix	Attachment	Attached
		Validity Measure	Not sure

As shown in Table 47, the practitioner collected data using interview, questionnaire and tests. Using available sampling all students included in the study; however, all students in one class may not get low results. The practitioner could have analyzed and compared the result of the tests before and after the implementation. There was no sufficient explanations and rich description of the qualitative data. Moreover, the actual practice of this action research was not implemented in the real life situation of the research problem. The report did not show the cyclic way of action taking using re-planning and action evaluating. Less action was taken in the real classroom situation. The report has indicated that the researcher developed neither possible solutions of the problem nor implemented the action strategy properly in a cyclic way into practice. Furthermore, the practitioner recommended to other persons like other researches instead of solving the problem by himself. The components of the action research used were also like applied research style. Hence, it can be difficult to differentiate whether it is applied research or action research.

4.8.2 Analysis of Applied Research Paper

Table: 48 Quality Indicators of Applied Research Case One

Case	Themes		Categories
1.A Study of Knowledge, attitude, and practice of sexually and reproductive health among adolescent students at ACTE	Validity	Internal	No quotation .Uncertain sample Systematic for questionnaire .Lottery for FGDs Results interpreted. .No rich description
		External	Not quite sure
	Reliability	Internal	Questionnaire (38 closed-ended and 6 semi structured) .FGD (12 items) . No pilot
		External	Uncertain
	Triangulation	Data collected from	Students only
		Qualitative & quant	Relatively both
		Methods used	Descriptive only
		Team Vs alone	Alone
	Credibility	Thickness of data	Not sure
	Methods of data analysis	Qualitative	Words, themes, matrix and category
		Quantitative	Percentage only
	Recommendation	Recommended body	NGO, teachers and students
		Applicability	Uncertain
	Appendix	Attachment	Attached
		Validity Measure	Not sure

As can be observed in Table 48, the evidence obtained in the research paper pointed out that the researcher collected data using one FGD and questionnaire. Nevertheless, the data were collected only from students. Besides, inadequate samples were used by single-handed researcher. Therefore, it could not be reasonable to generalize and conclude the results. In addition, the researcher could have used further instruments like interview to collect relevant data from the concerned sexual health stakeholders. Data should have been collected from the agencies of sex education institutions like home/family, the community like HIV/AIDs club, hospital/clinic and teachers of psychology and biology as well. The recommendation was also minimal concerned with sexual health related bodies. Though systematic sampling technique was used for questionnaire, lottery system should not be reasonable for the participants of FGD. The researcher could have used purposive sampling for those who have further information for the FGD participants. Even one FGD was not enough to capture the required information. Procedures and number of the participants of FGD were not clearly described too. Moreover, the researcher did not exert out efforts to use further analysis and interpretation. Thus, it is hard to judge the worthy of the research conclusion without collecting relevance data from the

concerned bodies. The research problem itself is somewhat complex and broad. Knowledge, attitude and practice about sexual healthy and reproductive health of adolescent may not be succeeded easily and to manage the study properly by single researcher. Even the valid measuring of items was doubtful.

Table: 49 Quality Indicators of Applied Research Case Two

Case	Themes		Categories
2.A-and-B Type Tigrigna Verbs: B Semi-Predictable semantics to A	Validity	Internal	No quotation . Not captured rich data Minimal interpretation . Not rich description
		External	Not sure
	Reliability	Internal	Document analysis only . No preliminary study
		External	Not sure
	Triangulation	Data collected from	Document analysis
		Qualitative & quant	Qualitative only
		Methods used	Uncertainly
		Team Vs alone	Alone
	Credibility	Thickness of data	Not reasonable
	Methods of data analysis	Qualitative	Words, but no themes, patterns, matrix, display and category
		Quantitative	No
	Recommendation	Mentioned body	Uncertainly
		Applicability	Not sure
	Appendix	Attachment	No
		Validity Measure	Not sure

To judge the quality of the research, efforts of the researcher, valid measurement of instruments and well-done quality indicators of research in general are quite required. As shown in Table 49, the researcher was concluding without rich description and explanations; using single instrument, too little analysis and interpretation. The researcher used only one instrument, lone qualitative data as well as uncertain description thickness of data by single researcher. Furthermore, the researcher did not consider primary data sources. Therefore, the conclusion of the research might not be reasonable and trustworthy. It is hard to judge the quality of the research without adequate data and triangulation of data using different instruments and sources of data. This paper has also little evidence in portraying and exploring the participants' opinion. The recommendation and its applicability were also doubtful. Based on the report, the study does not provide reasonable evidence to generalize the findings.

Table: 50 Quality Indicators of Applied Research Case Three

Case	Themes		Categories
3.An Assessing of the predictive validity of the criteria for student admission in teacher colleges: the case of AACTE	Validity	Internal	No quotation . Adequate sample for students Results interpreted. No explanation in qualitative
		External	More or less
	Reliability	Internal	Document analysis (GPA, EE and NEGPA, HAVE) .Interview .No pilot or preliminary study
		External	Relatively
	Triangulation	Data collected from	Students (available) . teachers(not clear sample)
		Qualitative & quant	Quantitative only
		Methods used	Correlation
		Team Vs alone	Alone
	Credibility	Thickness of data	Somewhat
	Methods of analysis	Qualitative	No analysis
		Quantitative	%, R, R^2 ,graph
	Recommendation	Mentioned body	Colleges and teachers
		Applicability	Applicable
	Appendix	Attachment	Attached
		Validity Measure	Somewhat

As shown in Table 50, the evidence of the report indicated that the researcher used relevant data, analysis using percentage, and R, R2 and graph and correlation design. More or less, the data were collected from students with adequate sample. However, the researcher did not quote the participants' strong ideas. Moreover, the researcher did not consider preliminary study, participatory and replicable study. Besides, the researcher did not think about the triangulating the qualitative data with the quantitative to conclude with a full confidence. The samples and procedures of qualitative data were not clear especially, for teachers. Furthermore, the researcher could have concerned reliability of the tests. Only the correlation design was used as a method.

Table: 51 Quality Indicators of Applied Research Case Four

Case	Themes		Categories
4. Factors Affecting the Implementation of Group Work Assessment: In the Case of Adwa College of Teacher Education.	Validity	Internal	No quotation .May not adequate sample Results interpreted .Purposive for teachers Systematic for students .Not captured rich data
		External	Less confidence
	Reliability	Internal	Questionnaire(16 closed-ended) . No pilot Interview (5semi-structured)
		External	Not sure
	Triangulation	Data collected from	Students . Teachers
		Qualitative & quant	More or less both
		Methods used	Descriptive only
		Team Vs alone	Alone
	Credibility	Thickness of data	Uncertainly
	Methods of analysis	Qualitative	Words, but not themes, patterns, matrix, category
		Quantitative	Mean, SD and %
	Recommendation	Mentioned body	Colleges and teachers
		Applicability	More or Less
	Appendix	Attachment	Attached
		Validity Measure	Not sure

The evidence obtained from Table 51 portrayed that the researcher used questionnaire and interview to collect data from students and teachers. However, the samples drown might be somewhat inadequate. The researcher did not quote the participants' opinion. As the report, pilot study was not conducted too. Inadequate data and single-handle research method by a single researcher might not be reasonable to generalize the findings and the required comprehensive conclusion. Data could have been collected from other concerned bodies like HDLs, department heads and pedagogical science teachers. In addition, the researcher used only percentage instead of using significant statistical test in the quantitative analysis. Further, the researcher should have used theme, matrix and data display in the qualitative data analysis. Moreover, the researcher did not capture rich data and detail description. The validity measurement of items was also not quite sure.

Table: 52 Quality Indicators of Applied Research Case Five

Case	Themes		Categories
5. Fctors Affecting the integrating ICT with Communicative English Skills: The case of AACTE.	Validity	Internal	No quotation . Available Somewhat interpreted . No rich description
		External	Not reasonable
	Reliability	Internal	Questionnaire (5 closed-ended and 5 semi-structured) Interview(5 open-ended) Observation (No items) .No pilot .Shown to experts
		External	Not sure
	Triangulation	Data collected from	English instructors only
		Qualitative & quant	More or Less both
		Methods used	Descriptive only
		Team Vs alone	Two researchers
	Credibility	Thickness of data	More or less
	Methods of analysis	Qualitative	Words, No themes, patterns, matrix, category
		Quantitative	Percentage only
	Recommendation	Mentioned body	Teachers
		Applicability	Uncertainly
	Appendix	Attachment	All except observation
		Validity Measure	Somewhat

This paper concerns factors affecting the integration of ICT with communicative English skills. Its purpose was to integrate-ICT and communication skill. As Table 52 indicated, the researchers collected data using questionnaire, interview and observation from the English instructors. Somewhat reasonably qualitative and quantitative data were collected by two participants. Though available sampling was used, the procedures for whom, what methods and for what purpose were not clearly illustrated. Even though the researchers showed the items to experts, they did not conduct pilot test. On the other hand, the researchers collected data only from English instructors. They could have collected data from other concerned bodies like ICT instructors using interview, recommendation as well. Even they should have collected data from students. In addition, they did not consider advanced statistical test and themes, patterns, categories, matrix and data display in their analysis part. Moreover, quotation was not considered in their analysis part. The applicability of recommended recommendation was not quite clear.

Table: 53 Quality Indicators of Applied Research Case Six

Case	Themes		Categories
4. The Status of Educational Research at Debre Birhan College of Teacher Education and Vocational Training College.	Validity	Internal	Quoted . Uncertain sample and sampling Somewhat interpreted .No sufficient explanations
		External	Less reasonable
	Reliability	Internal	Interview(seven semi-structured) Document analysis .No preliminary study
		External	Not sure
	Triangulation	Data collected from	Teachers only
		Qualitative & quant	Qualitative only
		Methods used	Descriptive only
		Team Vs alone	Alone
	Credibility	Thickness of data	Uncertainly
	Methods of analysis	Qualitative	Words, category, themes but no patterns and matrix Not analyzed the document
		Quantitative	No
	Recommendation	Mentioned body	REO, and Colleges, university and teachers
		Applicability	Somewhat
	Appendix	Attachment	Only the interview
		Validity Measure	Not sure

Table 53 shows the status of educational research in Debre Birhan College of teacher education, but the researcher did not make it clear in which types of educational research was carried out. The evidence indicated that the researcher collected only qualitative data with uncertain sample only from teachers by a single researcher. Though the researcher did analysis of the interview data using category and themes, he did not think about rich description and explanations of data using data display, matrix and patterns. Beside to this, the researcher did not make analysis on the document. The action research and other types of researches were not described and differentiated clearly. The researcher should have collected data from other concerned bodies such as HDLs and RPOs and its committees at the colleges. The researcher should have recommended them. Furthermore, the researcher did not look the quantitative data to triangulate the qualitative. Therefore, the finding may be hard to generalize with a full confidence.

Table: 54 Quality Indicators of Applied Research Case Seven

Case	Themes		Categories
7. The Level of Utilization of Active Learning Methods at DebreBirhan	Validity	Internal	No quotation . Uncertain sample Relatively interpreted . purposive
		External	Less confidence
	Reliability	Internal	Questionnaire (16 closed-ended and 4 semi-structured) Observation (no item and analysis) . No pilot
		External	Not sure
	Triangulation	Data collected from	Teachers and fresh man students
		Qualitative & quant	More/ less both
		Methods used	Descriptive only
		Team Vs alone	Alone
	Credibility	Thickness of data	Uncertainly
	Method of analysis	Qualitative	No analysis
		Quantitative	Percentage only
	Recommendation	Mentioned body	Students and teachers
		Applicability	Not sure
	Appendix	Attached	Only questionnaire
		Validity Measure	Not sure

Table 54 portrayed that the level of utilization of active learning methods in Debre Birhan University. The researcher collected data from fresh man students and teachers using questionnaire and observation. As the report, both qualitative and quantitative data were collected; nevertheless, the researcher did not make analysis on the observation data. In addition to this, the researcher conducted research on fresh man students; however, it was better to conduct on students who have further know how about active learning. Data could have been collected using interview from other concerned bodies such as HDLs, pedagogical science teachers and head departments. He ought to have recommended them. Besides, the researcher did not consider further statistical analysis and themes, categories and matrix. There were uncertain thickness of the data and samples drown. The applicability of the research recommendations was also uncertain. Additionally, the researcher did not consider pilot test and show to experts. The numbers of questionnaire items were few. Also the items were not included in the observation part. As a result, the items' validity was doubtful. Thus, it might not be reasonable to generalize and to conclude the required findings with full confidence.

Table: 55 Quality Indicators of Applied Research Case Eight

Case	Themes		Categories
8. Conducting Action Research :Challenge With Particular Reference to four High Schools of Tigray	Validity	Internal	Not Quotation . No captured rich data The questionnaire relatively interpreted Uncertain sample . No ample explanations The qualitative data not properly interpreted
		External	Not quite sure
	Reliability	Internal	Questionnaire(24 semi-structure items) .No pilot Interview (5 closed-ended). Document analysis(4 items like checklist)
		External	Not sure
	Triangulation	Data collected from	Teachers(randomly) .Directors(purposive)
		Qualitative & quant	More or less both
		Methods used	Descriptive only
		Team Vs alone	Two researchers
	Credibility	Thickness of data	Not sure
	Methods of analysis	Qualitative	Words, but no category, themes, patterns and matrix
		Quantitative	Percentage only
	Recommendation	Mentioned body	Teachers, supervisors, university and colleges
		Applicability	More or less
	Appendix	Attachment	Attached
		Validity Measure	Not sure

Table 55 reveals that a title which deals with conducting action research challenges in four high school of Tigray. The researchers collected data using questionnaire, interview and document analysis from the teachers and directors but, the researcher collected inadequate data using uncertain sample. Moreover, the researcher did quote the interviewees' opinion. In addition, data should have been collected from some concerned stakeholders such as, supervisors, woreda education office and regional education office; they should have also recommended them. Furthermore, data should have been collected from teacher-researchers who did research in the schools. No sufficient data were captured as a result of poor explanation and description made in the qualitative data analysis. Besides, the researchers did not consider the themes, category, patterns and matrix in their qualitative data analysis. It is also doubtful about the validity measurements of the items. The applicability of the research recommendation was also uncertain. Therefore, the report has inadequate evidence of reason to generalize the findings of the study.

4.9. The Result of Interview

The main purpose of this interview was to examine the implementation and quality of the research studies presented at the research conference. Semi-structured interviews were conducted to obtain in depth data. Probing questions were also asked to the interviewees to capture their reason and to handle the required information. Therefore, the raw data of the interviews are presented and analyzed by selecting the main data, themes, category and patterns. The summary is mainly based on the interviewees' responses and the raw data have been summarized using the matrix in Table (Appendix 7).

As indicated in Appendix 7, an attempt was made to analyze the results of the interviewees' responses. It was begun by examining the quality of the applied research studies presented and conducted at the colleges. According to most of the interviewees' responses, the research studies which were presented and carried out at the colleges were poor in quality; however, some were good. Some of them doubt about the quality work data and others felt poor quality work in the field of study. Most of them reasoned out that researchers did not consider validity and reliability data. One of the dean of the college said that "I have been attending all the presented researches at the research conferences; so far I feel that the quality of the researches is poor. However, the quality and quantity is improving from time to time as beginners. Some research problems are timely and current issues." Other vice dean of the college also said that "I have been attending all the research conference, of course some of the researches raised current issues and timely research problems; however, I feel that most of them were poor quality work in the field of study. Because of this, I doubt whether some researchers really collected data and practiced in the field of study properly."

Some interviewees admitted that they doubt to judge the quality of research work properly. Some of them said that though most of the research problems were relevant and timely issues, researchers did not take ample time to do in the field of the study. Some researches were not done on the ground properly and others were not updated. Unfortunately, some researches were homemade. No one research was undertaken purposefully for the sake of replicable study. Once again nearly everyone felt that there was no standards and quality base work research to change policy and its practice with full confidence. Nonetheless, some may improve students' learning

and change into classroom. Though there were some quality works researches, policy makers did not give attention to the findings. The SDU was also said that "of course some researches seem to raise the real educational problems; however, I do not believe that some of the researches were done in the field of study purposefully." To reason out, probing questions were also asked to the interviewees. The majority of the participants pointed out that the main reason why researchers conducted was for the sake of result oriented and participation at the research conference. Some of the researches were not done purposefully especially, the researches carried out at the colleges. Others stated that there were lack of commitment, well training, research facilities, motivation, budget allocation and funding. On the other hand, lack of knowledge and skills how to carry out research were another challenges. Furthermore, some interviewees reported that the RPOs did not take part in quality of research work. They did not have related fields, qualification and specialization vertically. Besides, the RPOs did not have clear criteria while selecting the papers. As a result of this, some researches might not have been done purposefully and properly.

In depth interviews were also conducted with the interviewees about the implementation of research studies as well. Every interviewee felt that so far there was no any implementation of research studies at all. However, only the norm to criteria reference and medium of instruction into Tigrigna were implemented at the colleges. The interviewees felt that no training session and materials were developed well while implementing these researches. For example the SDU said that "almost the quality of the research presented and conducted at the colleges were poor in quality of education because no one cares about their implementation."

Nearly all the interviewees thought that since there was no implementation of research recommendation of the research studies were not actually problem solvers. No one gave attention to the implementation of the research studies. So far a single research was not published at the colleges. Some of the interviewees reported that the research studies had hardly solved educational problem. The research studies also had little contributions in improving educational practice and quality of education. One of the RPO agreed with this idea "particularly, the recommended bodies and generally all stakeholders should participate in the implementation of research findings and recommendations to translate into practice, but in our college no one cares and gives attention about the implementation. Even the researchers themselves do not care about their research implementation."

Almost the interviewees believed that actually research studies should improve students' academic potential, ensure quality of education and change policies and practices in general. However, because of poor quality of research work, lack of integration between researchers and policy makers, the recommendations of the researches were not put into practice at all. The researchers did not consider the implementation of research recommendation as their work and role. Since there was no collaborative implementation of stakeholders particularly, the recommended bodies, it had minimum value in education. The research users were not beneficiary from the research studies. The recommended stakeholders never purposefully participated at the conference. Some participants were irrelevant and it might not concern them. As a result, there was no hot discussion. Less collaboration among recommended stakeholders was another reason. Although they thought that some researchers recommended at local level, others did not recommend relevant recommendation. And some researchers forwarded their recommendation at national level. Furthermore, some research recommendations were not applicable as they were required.

In depth interviews were conducted to examine about the quality and implementation of action research too. As pointed out in the Table, the quality of action researches was not yet problem solvers. Most of the interviewees admitted that the action researches done were poor in quality and none implemented action was reported. Some interviewees believed that they were not done in a real situation purposefully, because practitioner-researchers did for the sake of result oriented and participation at the conference. One pedagogic teacher thought that, "very few action research might have been implemented, but I do not believe that the actual implementation in real situation was done in a cyclic way because most of them were done for the sake of result oriented."

Almost the interviewees also thought that there was less collaborative action research process. Moreover, practitioners did not actually implement themselves in real situation. Lack of knowledge and skills how to carry out; lack of monitoring and evaluation make poor quality work in the field of study. Even some action researches were homemade. However, one of the dean of the college also said that "teaching load and lack of training may not be the main causes to poor quality and low engagement of instructors in action research at the colleges, because the policy declared that a teacher who has a maximum of 12 teaching load, and 25% of load is

expected to engage in research activity. Besides, all instructors have taken action research training in HDP." Meanwhile one of the former vice dean of the college and who did research said that "the researchers and recommended stakeholders have to work collaboratively to take part in quality of education. He further elucidated that to make valuable research studies; it needs integration among researchers, policy makers and research stakeholders at large. Moreover, policy makers did not use the findings of the research studies."

In addition to the instructor-researchers' views, REBOs were also asked about the quality of the research which were presented at the research conference. One of the former REBO said that "I have been attending at the research conference of Abbyi Adi and Adwa colleges of teacher education for several times. Though the participation of the teachers at the research conference is appreciating as a binger, the quality of the research studies is not as it's required. The researchers did not take time to collect data with the subjects of the study. They did not consider the validity and reliability of the data. This may be due to lack of quality and effective research training. Even I doubt that some researches may be done at home." The REBO and CEREBO shared that since there is no quality based work of research which lead to the implementation findings, the research studies did not take part in quality of education. They have little value in solving educational problems. So far we did not use the findings of the research in our educational work. There is no integration between policy makers and researchers. Even the medium of instruction changed from English to Tigrgna and the norm reference to criteria assessment at the colleges not only because of the local researches, but also we have discussed it several times at the meetings and at the international research conference such as, UNSCO.

4.10. The Results of Focus Group Discussion

To triangulate the interview and document analysis, two FGDs were conducted at the colleges. In each FGDs 8 participants were participated. All the participants were attending at the research conference. Each participant shared their ideas and experiences on each question as well. The discussions spent 40 minutes for each FGD. The researcher recorded what they have discussed and agreed on the issue in terms of frequently, sometimes and rarely mentioned by the participants. To reason out, probing questions were also asked. Based on frequently, sometimes

and rarely stated and discussed on the issues, the data have been summarized using themes, categories, patterns and matrix in Table (Appendix 8).

To begin with how often they participate at the research conference, all were found participants. Therefore, they could judge the quality and the level of implementation of the research studies at the colleges. A question was asked to the participants to judge the value of the research presented and conducted at the colleges. Almost all participants argued that less value added and it has little practical valuable at all. All participants also agreed that since there was no published research at the colleges, the values of the researches were not reasonable. The participants believed that research users never benefited from the research findings. Some of them argued that only the participants of the research conference shared experience and discuss on the issues; otherwise it made no difference at all. However, rare of them felt that there was nothing practical value in education and they were simply kept on shelf. They reasoned out that there was no any published research study. Students and teacher-researchers did not use the materials and the research studies in general. As the researches studies were not implemented at all, the educational problems were not solved. The practical contribution was little to ensure the quality of education.

To judge the quality of the research, a question was also asked to the participants. Majority of them felt that the quality of the research was at low status and poor in quality. Some of them argued that most of them were doubtful and some were relatively good. Rarely participants said that although some researches were low in performance, they were interesting. Their main reasons were since there was no implementation of research recommendation in quality of work in the field of study, the research studies has little value in education. Researchers did not work research appropriately in the field of study. Most of them felt that researchers did not consider validity and reliability. Regarding the applicability of the research recommendations, most of them were practicable, some need updating and some were not practicable, pointed out frequently, sometimes and rarely respectively. The participants also discussed the significance of the research problems presented at the colleges. The majority of them stated that they were current issue research problems and some of them conferred that they were relevant in education. Nevertheless, some researches were irrelevant and not updated.

In addition, the participants were asked whether the research studies were actually done in the field of study. Nearly all of the participants were doubtful to judge the quality of work appropriately. Some of them argued that some researches might not be done on ground. Rarely of them shared that some of the researches were simple report and some were homemade. The participants gave reasons that they were doubtful about the feasibility and the practicality of data collected to attain the conclusion with the necessary description of data. Most of the researches were done for the sake of result oriented and participation at the research conference. They did not consider the quality of the research.

During the discussion, the implementation of research recommendation was another issue. As reported by the participants, no one tried to implement, follow up and care after the presentation. All researches were not implemented at the colleges as stated frequently by the participants. Some of them argued that except two researches, the rest were not implemented at all. While rarely participants discussed that there was no implementation of research findings at all.

Regarding the participation of stakeholders at the research conference, almost all members of the participants felt that the recommended stakeholders did not participate purposefully. They added that all participants did not share ideas and discuss on the issues at the research conference. Some participants argued that stakeholders did not play a part and it might not concern to some of them. Rarely participants knew nothing and some were irrelevant participants.

As stated in the Table, there was no implementation of research recommendations and findings at all. This was due to lack of commitments and initiation, lack of fund and budget, lack of follow up of stakeholders especially, the recommended bodies and researchers. Poor quality work and low performance of research was the other reason. Lack of relevant facilities and materials were the other problem. On the other hand, lack of integration of policy makers and researchers were frequently pointed out by the participants. Other participants argued that lack of collaborative recommended stakeholders, knowledge and skills, training, and attention of the colleges and RPOs were stated by some participants. However, lack of practicability of recommendation, relevant facilities and research culture rarely mentioned. As stated frequently, the research studies were not actually problem solvers. The participants reported that the research studies solved very few problems and they were insignificant in solving educational problems.

Their main reason was that there was no implementation of research recommendations and findings.

The participants also discussed the quality and the implementation of the action research at the colleges. The participants were asked about the quality of action research at the college. The majority of them argued that almost the action research were poor and at low status of quality work. Some of them shared that less was done on ground and they were poor in quality of work real situation. Seldom of them were stated that some of them partially good and some were below the requirements. Concerning the process of action research, most of the participants stated that there was less process of action research. Frequently, they recommend to other persons instead of solving the problems by themselves. Some practitioner-researchers used randomly or available sampling instead of using purposive sampling with the particular problems. Some of the participants discussed that the practitioner-researchers themselves did not know the components and procedures of action research. As a result, they did not use the process of action research properly. Rare participants pointed out that some were used complex procedures and they did not differentiate from other types of researches clearly.

Another important issue was asked to the participants about the cyclic implementation of action research. Rare of the participants stated that there was much no difference from other types of researches, and few of action researches may be implemented. Some of the participants indicated that some may be partially implemented and the others were not action research because actions were not taken properly. Therefore, most of them were reports and some are homemade. Majority of the participants agreed that the action researches were not practically implemented in a cyclic way and poor quality of work in the actual situation because their intention was for the sake of result oriented and participation. Practitioner-researchers did not implement in the real situation and classroom certainly.

The main purpose of action research in education is to solve educational problem immediately. Unfortunately, most of the participants shared that they were not certain and they felt that very few problems had been solved actually. Some participants argued that the action researches have less value in solving problems and did not improve situation. Rare participants mentioned that there was no much difference from the other types of research implementation. The practical

values of action research were less and not as they were required were stated frequently and sometimes. The last discussion was the involvement of collaborative action research at the colleges. Accordingly, some of the participants shared that there was no formal collaborative process. Most of the participants argued that collaborative process and involvement of the action research was not often as it's required. The other few participants stated that some action researches were done collaboratively but may not be as the formal process of action research.

4.11 Discussion of the Results

4.11.1 The Relationship between Instructor-Researchers' Work Experience and Research Practice

The findings of the study showed that there was a low relationship between the instructors' work experience and research practice. In the ANOVA, instructors who had different levels of teaching experience had little or no effect on their research practice. They were in the same way in research practice. Independent *t*-test also showed that instructors who had different educational levels (BA and MA) had not brought any significant effect on their research activities. However, the independent *t*-test result showed significant difference about the research activities between the AACTE and ACTE. The Instructors who taught in AACTE were relatively better in research practice than ACTE. Paired *t*-test also indicated that the instructors were relatively more gave attention to action research practice than applied research at the colleges.

The overall mean ANOVA also showed that the research activities of the instructors in psychology and pedagogy were quite different from other fields of study. As the study portrayed the instructors of psychology and pedagogical science were better in research practice than the instructors of other fields of study. The result is consistent which was stated by Sagor (1992), most teachers have undertaken research alone. In the qualitative data, instructors' reasoned out that the hinder factors which engagement in research activities were stated as follow. Some of them pointed out that lack of competency and deep know how to carry out research, lack of fund and budget allocation, lack of attractive incentive and promotion. Poor research culture practice and lack of updating in research activities, lack of relevant facilities and materials, and shortage

of effective and practical research training, lack of well and quality trainings were the other problems. This finding is consistent with the results reported by Ayalew et al. (2009), lack of time to do research, research funds, competence and ability and absence of adequate and up-date reference books were the main challenges in higher education institutions. The result is also resembles with the findings of Firdissa (2007), time constraints, lack of financial or materials support to conduct research, and shortage of research facilities were other problems.

4.11.2 The Instructor-Researchers' Perception and the Quality of the Research Studies

One way ANOVA was carried out with the instructors' satisfaction by the overall quality of the research practiced among the instructors who have different fields of study, levels of teaching experiences and participation at the research conference. The result revealed that they were dissatisfied by the overall quality of the research practiced and presented at the colleges. Another ANOVA was employed with the instructors' perceptions about the quality of the research studies. The result disclosed that there was no significant difference among the instructors who have different levels of teaching experiences, research training and participants at the research conference. However, rare participants of the research conference and who had taken research training in service were satisfied and positively perceived by the overall quality of the research respectively. *T*-test was also employed to determine if there was statistical mean difference about the quality of the research studies between BA and MA instructors. The results indicated that the instructors who had different educational levels had no any significant different about the quality of the research studies carried out and presented at the colleges. Also there was no significant difference about the quality of research practiced between AACTE and ACTE. Furthermore, Paired *t*-test showed that applied research was better than action research in quality.

The qualitative data from the interview, FGD and open ended questionnaires shared that the researchers did not give attention to quality. As a result, the research studis were poor in quality. Most of the respondents were doubtful about the quality of the research practice. Though the research topics were addressed timely and current issues based on guidelines, the quality of work in the field of study was doubtful. It was also doubtful whether some researches were actually done in the field of study. In addition, the researchers did not collect adequate data from different

concerned subjects and angles. They did not use different instruments. Some researchers used irrelevant instruments, inadequate sample and inappropriate sampling. Researchers did not triangulate qualitative and quantitative data in their research. Furthermore, the researchers did not consider pilot test, and they did not quote the participants opinion. Inadequate data and single-handle research method might not be reasonable to generalize the findings and the required comprehensive conclusion. Researchers also did not consider advanced statistical test and themes, patterns, categories and matrix in their analysis part. Moreover, some researchers did not make and include analysis of the data. The team and collaborative work of the research was also less reasonable. As the investigation of Phillip and Tineke (2009) on methodological issues in qualitative research there should be triangulated evidence from a variety of data sources and methods that can ensure its validity and reliability.

In the interview, FGD and open ended questionnaires, the instructors were also asked to reason out for the low quality of the research. According to their reason, most of the researches did not address validity and reliability. The researchers did not collect data using different instruments from different sources. Since researchers collected very few and inadequate data, the findings and the quality were doubtful. Some of the researches were not updated and some researchers did not collect actual data. No one carried out research purposeful for the sake of external reliability. The RPOs have not clear criteria for selecting the research papers to be presented at the conference. The finding is consistent with the results reported by USAID (2006) the action research that has been done in schools seems to lack credibility. As Flick (2007) stated by combining methods and investigators in the same study, observers can partially overcome the deficiencies that flow from one investigator and method. Researchers have to respect triangulation of methods, investigators, theory and data soundest strategy construction.

4.11.3 The Instructor-Researchers' Perceptions and Implementation about the Research Studies

The important issue examined in this study was the perception of instructors and their implementation of research studies. One way ANOVA was employed with the instructors' perceptions and implementation of research studies. The results of ANOVA on instructors' perception were not significant difference among the different fields of study, levels of teaching

experience and research training. No significant variations were also found among the instructors' research implementation the age category, fields of study and teaching experiences at the colleges. The combined mean perceptions and implementation of instructors about the translating of research studies into action were not statistically significant at all.

Another ANOVA was carried out on the instructors' implementation of research studies, the overall mean fields of study, experience and participants at research conference. The result signifies that the instructors having different fields of study, levels of teaching experience and participation at the research conference bring insignificant change regarding the implementation of research studies at the colleges. The independent t-test also indicated that there was no significant difference between BA and MA in their implementation of research studies. There was no significant difference about the implementation of research studies between AACTE and ACTE .The reason may be due to the factors that 82.1% of the instructors did not take training how to implement research studies. The instructors were not satisfied with the research training. However, the paired t-test indicated that action research was more implemented than applied research by the instructors at the colleges. This may be due to the findings of action research which was directly put into practice by the practitioner-researchers. Nevertheless, it could be argued by the qualitative data, some practitioner-researchers did not take action, some did not take action properly, and others did not know how to deliver it into action. Mainly, action research was not done purposefully and most were done for the sake of result oriented and report values.

It was also possible to argue about the implementation of applied research based on qualitative data obtained using interview, FGDs and document analysis. Accordingly, the medium of instruction (English) was changed into local language (Tigrigna), and the norm reference assessment was also changed to criteria reference. However, there was no formal discussion, training session and materials formally while implementing the two researches. Nevertheless, the rest were not implemented at all from the researches presented in the fourth and seventh annual research conference. The implementation of the research recommendation at the colleges is a serious problem because the translation of research recommendation and findings into action was not so far reasonable. The instructors' reasoned out that the stakeholders, researchers, policy makers the colleges; research stakeholders and recommended stakeholders did not give attention

to the implementation of the research studies. This is consistent with the finding stated by Ali et al. (2007) that the relationship between research findings and its practice is rare. Researchers cannot act alone but in partnership with other research stakeholders. This result is also consistent with the findings reported by Mulu (2009), most of the researches undertaken and presented at the research conference were shelved.

It can be argued that the action research implementation was not much different from other types of research implementation based on the evidence obtained through the interview, FGD and document. Because of some practitioner-researchers partially implemented and others did not take actions in the real situations. Furthermore, the actual practice of the action research implementation was a serious problem of the practitioner-researcher. Mostly, there were no cyclic way of action planning, action taking, and action evaluating. They did not take place in the real classroom situation. Practitioner-researchers did not indicate the cycle for continuous improvement by repeating the plan (re-planning), acting accordingly, observing and reflecting the activities. They did not consider as it was actually implemented in a cyclic way. Some practitioner-researchers did not know how to select practicable research problem and how to deliver, monitor and evaluate the action. The result is in agreement with the results of USAID (2006), in primary school, teachers did not use a cyclic way of implementation in a real situation. Lewin cited in McNiff and Whitehead (2004), action research practice as an action-reflection cycle of planning, acting, observing and reflecting. Less collaborative and participatory involvement of practitioner-researchers in action research was also found. Minimal collaborative process of action research was the other problem. This finding is also consistent with which was stated by Sagor (1992), the reporting of research is not often discussed in action research circles.

4.11.4 The Extent of Research Studies value in Solving Educational Problems.

Another important variable which was examined in this research was about the research value in solving educational problem. In light of this, the results of one way ANOVA magnitude that instructors who have different levels of teaching experience, fields of study and participation at the research conference brings insignificance difference in solving educational problems. The independent *t*-test also asserted that the mean difference between BA and MA instructors was found to be insignificant. Similarly, there was no significant difference in solving educational

problem between AACTE and ACTE. Paired *t*-test also showed that there was no significant difference between action research and applied research in solving education problem. Furthermore, the results of the step wise multiple regression analysis also revealed that implementation, quality, and research practice found to be significant predictors when entered into the model as the first, second and third best predictors of solving educational problems respectively. As Elliott (2001) stated, the fundamental aim of action research is to solve problems and to improve practice. Likewise, Kothari (2004) stated that the aim of applied research is finding a solution for an immediate problem.

On the other hand, the qualitative data triangulated that since there was no implementation of research studies, the practical values in solving educational problem was below par. They were paper values and they were doing for nil practical contribution. Only the participants at the conference could share and discuss on the issues raised. Mostly, practitioner-researchers recommended to others instead of solving the problem by themselves in their action research. They used randomly or available sampling instead of using purposive sampling with the particular subjects who had a problem. As most of the action researches were done at the colleges for the sake of result oriented, no actions were taken properly. They were simply report values. Therefore, the practical value of the research studies had little practical value in solving problem. On the other hand, there was no any research study that had been published at the colleges. According to Phillip and Tineke (2009), the research recommendations are likely to solve problem and to satisfaction of all concerned stakeholders. This result is also agreed with the findings reported by Mulu (2009), the overall contribution of the research studies of HEIs is minimal.

4.11.5 The Challenges of Implementation of Research Studies

In connection with the challenges of research studies, quality and its implementation, the instructors gave reasons to some of the common problems. Lack of practical and effective research training, competency and deep knowledge on how to carryout research were the main problems. Lack of research culture and update on research activities were the other main problems. Moreover, they lacked commitments and initiation, relevant facilities and materials, and fund/budget allocation and attractive incentive and promotion. Working and teaching load,

time constraints and poor administration and management system were the common challenges. The result is similar with the findings of USAID (2006) which indicate the reasons for teachers not doing action research were lack of incentive, training, facilities, and workload were found. The ANOVA also indicated that the instructor-researchers were not satisfied by the overall facilities and incentives of research. The results were also in agreement with the findings of Ayalew et al. (2009), teachers were not engaged in research activities , for various reasons such time constraints, shortage of resources and facilities and lack of experience. The finding is also consistent with the findings reported by Wossenu (2009), አብዛኞቹ መምህራን ከሚጠበቅባቸው የስራ ጫና ማጠን በላይ የሚተሚ ስራ ጫና ስለተሸከሙ ሌለች ሞያዊ ግዴታዎችን እንደ ምርምር ማካሄድ ለመወጣት እንዳልቻሉ ጥናቱ ጠቁሟል፡፡

Moreover, the challenges of implementation of research studies were: poor quality research; lack of collaborative work stakeholders especially, the colleges, RPOs, researchers, recommended stakeholders and research stakeholders. Furthermore, lack of attention and integration of policy makers and researchers and research stakeholders were the other problems. Mainly, there was no any training how to implement research studies at all.

5. Summary, Conclusions and Recommendations

This chapter deals with summary, conclusions and recommendations. The first section is concerned a brief summary of the major findings presented. Based on the conclusion of the major findings made, recommendations are forwarded.

The main purpose of the study was to assess the quality and implementation of research studies in solving educational problems at Abyi Adi and Adwa Colleges of Teacher Education.

To build up the objective, six basic research questions were raised.

1. What is the relationship between teacher-researchers' work experience and research practice at the colleges?
2. What is the status of the quality of the research studies practiced and presented at the colleges?
3. To what extent the research studies are implemented at the colleges?
4. What is the perception of teacher-researchers about the quality and implementation of research studies?
5. What is the value of the research studies in solving educational problems at the college?
6. What are the challenges of implementation of research studies at the colleges?

To answer this research questions, quantitative and qualitative data were collected from the instructors, RPOs, HDLs, SDUs, deans and vice deans, head departments, researchers and curriculum experts of the colleges, and REBO and CEREBO using questionnaires, interviews, FGDs and document analysis. Both primary and secondary sources of data were used. The obtained data were analyzed and interpreted quantitatively and qualitatively.

5.1 Summary of the Findings

The Relationship between Instructor-Researchers' work Experience and Research Practice

The study revealed that the relationships between instructors' work experience and research practice were very low. The ANOVA signified that the instructors who have different levels of teaching experiences at the colleges were in the same way in research practice. The overall mean ANOVA also revealed that there were no significant differences in research practice among the instructors who have different levels of teaching experience, research training and fields of study except the instructors of psychology and pedagogy. The ANOVA asserted that the instructors of psychology and pedagogical science were better engaged in research practice than the instructors of other fields of study. The independent *t*-test denoted that there was no significant difference between BA and MA in research practice. The instructors' work experiences, qualifications, and research training have little or no effect in research practice. However, the independent *t*-test indicated that the level of engagement of research practice at AACTE was better than ACTE. The paired *t*-test also portrayed that the instructors gave more attention to action research than applied research.

The Instructor-Researchers' Perceptions and Quality of the Research Studies

The overall mean ANOVA indicated that the instructor-researchers neither satisfied nor perceived by the overall quality and performance of the research studies presented at the colleges. There were no variations among the instructors having different levels of teaching experience, fields of study, research training and participation of research conferences except who received in-service training and rare participants. Rarely of the participants of the research conference and who received research training in-service were satisfied and positively perceived by the overall quality research presented at the research conference respectively. Besides, the independent t-test signifies that there was no significant difference between MA and BA about the quality of the research studies. Moreover, there was no statistical mean difference about the quality of research presented between AACTE and ACTE. It was also found that applied research was better in quality than action research.

On the other hand, the qualitative data showed that researchers did not give attention to quality. As a result, the research studies were poor in quality and performance. The participants were doubtful about the quality of the research studies. The reasons for this problem were some researchers did not collect data from different angles and subjects using different instruments. Some of them used irrelevant measuring instruments. Unfortunately, others did not collect data in the field of study. Some were homemade researches. Also they did not use adequate sample depending on the nature of the research problems. Furthermore, researchers did not consider the nature of the population while selecting sample. Others used inappropriate sampling, and they didn't know how to select samples. Some researchers did not collect relevant data from the concerned body. In addition, some researchers did not collect data using the procedures of the study. Mostly, practitioner-researchers select sample randomly and available instead of selecting the subjects who had a problem using purposive sampling in their action research. Moreover, some practitioner-researchers neither collected baseline data nor evaluated new action.

Researchers did not consider further statistical tests and themes, category, matrix and patterns in their analysis part. Unfortunately, some researchers did not make analysis and interpretation data. Furthermore, some researchers did not interpret the data accurately. Almost the researchers used only percentage and words in their analysis of quantitative and qualitative respectively. The researchers did not triangulate the qualitative and quantitative data in their research properly. Researchers did not provide systematic comparisons and logical reasoning among the data. Therefore, they have little evidence on the ground of data. They did not spend prolonged time in the field of study and with the subject to capture rich data. Moreover, the researchers did not consider pilot test and participants' quotation. Some researchers did not include appendix and others used very few and inappropriate measuring items. The validity of measurement was uncertain. They did not carry out preliminary study while using document analysis. In addition, they did not capture rich data in the field of study. As a result, they did not make rich description and explanations especially, the qualitative data.

Using inadequate data and without triangulating of different methods and sources of data, they come up to conclusion. Purposefully, researchers did not consider external reliability for the sake of replicable study. Mostly, researchers carried out research for the sake of result oriented and participation. Other researches were repeatedly presented at the research conference without

updating. They did not purposefully carry out research in the field of study. Hence, the researches that had been done and presented at the research conferences had less credibility. The applicability and relevance of the research recommendations were not reasonable especially, at local level. It was also found out that there was less collaborative and participatory research process. Nearly all the researches were carried out in a single method that was descriptive survey by single handling researcher.

The Instructor-Researchers' Perceptions and Implementation about the Research Studies

The overall mean ANOVA asserted that the instructor-researchers neither perceived nor implemented the research studies. There were no variation in implementation and perception about research studies among the instructors who have different levels of teaching experience, fields of study, age category, research training and participation of the research conference. In addition, the independent *t*-test revealed that there was no significant difference in implementing research studies between BA and MA. No significant difference was found out about the implementation of research studies between AACTE and ACTE. Likewise, the qualitative data shared that except the medium of instruction (English) to Tigrigna and norm reference to criteria reference assessment, the rest of the research studies presented at the seventh and fourth annual research conference were not implemented. Poor quality work of research and lack of implementation of research recommendations and findings made no difference at all. There was a gap between research studies and its implementation. The translating of research recommendations into practice was far away from its implementation. The particular recommended research stakeholders were not discussing it purposefully at the research conference. Even some were irrelevant participants at conference. Hence, they had little participation. Generally, the educational research stakeholders did not give attention to the implementation of research studies.

Paired *t*-test showed that the action research was more implemented than applied research. However, the qualitative data result reveals that the implementation of action research was not much different from the applied research implementation. Because of some practitioner-researchers partially implemented it. Others did not take actions in the real situation. Some

practitioners had not taken relevant action with the concerned research problem. Still others did not develop action strategies. Furthermore, Practitioner-researchers did not indicate the cycle for continuous improvement by planning (re-planning), acting, observing and reflecting the activities. Moreover, they did not take action planning, monitoring, action taking and action evaluating until the problem was resolved. Some practitioner-researchers did not know how to identify practicable and solvable research problem. Some practitioners did not differentiate action research from applied research. The collaboration and participation of teachers in doing action research was also very low.

The Extent of Research Studies Value in Solving Educational Problems

The results of one way ANOVA magnitude that instructors who have different levels of teaching experience, fields of study and participation at the research conference were the same in solving educational problems. The independent *t*-test also asserted that the mean difference between BA and MA instructors were found to be insignificant. There was no significant difference in solving educational problem between AACTE and ACTE too. Further, Paired *t*-test showed that there was no significant difference between action research and applied research in solving educational problem. In line with this, the step wise multiple regressions revealed that the implementing research studies was as the best predictor, followed by quality of research studies as the second best predictor and research practice as third predictor in solving educational problem.

The qualitative result also showed that since there was no implementation of research studies, it had little practical value in solving educational problem. Poor quality work of research was the other reason. The practice of the action research and applied research in solving educational problem was beyond its purpose. Since there was a gap between research studies and its implementation, it had little practical contribution in quality of education. Mostly, practitioner-researchers recommended to others instead of solving the problems by themselves in their action research. The quality and value of the research practiced and the proceedings of educational research conference did not matter in quality of education.

Researchers did not publish any research books, journals and articles which were practiced at the colleges. Therefore, the values of the research conducted at the colleges were immaterial for other readers, followers and teacher-researchers. It also did not have valuable evidence for

further implementation. Furthermore, the research users did not benefit from the research studies. The research conducted by the instructors did not address and direct towards the improvement of learning. Moreover, research study made no difference to improve educational practice. They were paper values, kept on shelf and doing for nil practical values in education. Unanimously, the research studies did not play role in solving educational problems.

The Challenges of Implementation of Research Studies

The instructors strongly reported that the common obstacles to carry out quality based research and implementation were lack of practical, well and updated research training, competency and deep know how to carryout research. Furthermore, lack of quality training was the other problem. On the other hand, lack of commitments and initiation, relevant facilities and materials, and fund/budget allocation and attractive incentive and promotion. Working and teaching load, time constraints and poor administration and management system were the common challenges. Furthermore, the RPOs and HDLs did not have related fields, qualification and specialization vertically.

There was poor quality work of research and lack of collaboration among stakeholders, especially, the colleges, RPOs, researchers, recommended stakeholders and research stakeholders. Furthermore, lack of attention and integration of policy makers and research stakeholders were the other main problems to implement research studies. Policy makers did not use the research findings. Moreover, there was no training how to implement research studies.

5.2 Conclusions

Based on the major findings of the study, the following conclusions were drawn.

One of the major objectives of instructors in higher education institutions is to carry out research. However, the results of this study conducted in the two colleges demonstrate that the research practices/ activities done by instructors were found out very low. On the other hand, the research studies presented at the research conference did not look at every indicator of quality research particularly, external and internal validity and reliability, triangulation and credibility depending on the nature of the research problems. The findings of the research studies were doubtful

because researchers did not give attention to quality. Moreover, the research recommendations/ findings did not lead to implementation. Thus, it was less reasonable to generalize the findings and the valid conclusions of the studies. As a result, the overall research studies were poor in quality and performance. This was mainly due to lack of effective and quality research training.

The present study showed that there was a gap between research studies and its implementation. The recommended stakeholders, researchers and research stakeholders did not put the research recommendations/findings into practice. This was also mainly due to lack of training how to implement research studies. Lack of integration of policy makers and research stakeholders were the other problem. Besides, policy makers did not give attention to the findings of the research studies.

Furthermore, the study also showed that the overall carried out research and the proceedings of educational research conference were not realized to solve the real educational problems. This is mainly due to lack of implementation of research studies based on quality work research. Research users also did not benefit from the research studies. The particular recommended stakeholders of the researches and the overall educational research stakeholders did not purposefully participate and discuss on the issues raised and they did not deliver to the implementation of findings. As a result the research studies had little value and solve problems.

It appears that from the present study little have been funded and allocated budget, lack of incentive and relevant materials and poor administration and management system were the common problems. Moreover, the RPOs and HDLs do not have related fields, qualification professions and specialization.

5.3 Recommendations

Based on the findings of the study and the conclusions drawn, the following recommendations forwarded to ensure the quality and implementation of research studies so as to make valuable research in solving educational problems at the colleges.

1. One of the major tasks of instructors in HEIs is to carry out research, but it was found to be low and poor quality researches. Lack of effective research training and commitment

were the main reasons. Effective, well advanced and updated practical training have to be introduced to enhance the quality and the participation of instructors in research activities. Hence, it is an easy way to do and to provide research training to the staff of the colleges through the HDP and RPOs. The HDLs and RPOs should have related fields, qualification profession and specialization. Furthermore, the research training given by higher education institutions should also launch in-depth research on practical and effective training so that teacher-researchers to come up with a standard research practice.

2. Teachers should carry out research purposefully by team using feedback from the teams' project proposal and delivering the implementation of research recommendations and findings collaboratively. Furthermore, the colleges should provide proactive collaborations by working and applying alongside the research studies and its findings. Moreover, the research should be based on relevant and timely issues of research problem. Furthermore, instructors have to develop the habit of doing and updating in research practice collaboratively as a key educational research stakeholder. Quality control systems of research should be developed with clear criteria and established with anonymous assessors. The quality of the research practice should proceed and address how it could be delivered to the implementation of the research findings and recommendations.

3. There was a gap between research studies recommendations/findings and its implementation. The overall research practiced and proceedings of educational research studies could have little value unless the research findings and recommendations obtained at the research conference are implemented. Priority training should be introduced how to implement research studies vis-à-vis to the research training in pre-service and in-service training in higher education institutions. The research recommendations/findings should be relevant, applicable and address possible solutions at local levels, and it should specify who will take the measures.

   Hence, two way relationships should be established between researchers and research stakeholders particularly, with the practitioners or recommended stakeholders.

Researchers should come up with specific training procedures on how it could be implemented their research findings/recommendations through materials and training sessions. The recommended stakeholders and researchers could specifically discuss on the issues raised on how it is being implemented by giving training, retraining in the dissemination workshops and seminar. Launch RPO as a center of research training and dissemination workshop how to carry out research and deliver the implementation of research findings. It needs follow up using assessments while implementing.

4. To make valuable research, research stakeholders have to be actively engaged in the implementation of research findings/ recommendations. Mainly, the integration of research stakeholders and policy makers need to be considered as key research stakeholders to increase their participation in implementing of the research studies based on quality work of research. On the other hand, policy makers should use the research findings as a base for their educational work.

5. Lack of research funds and relevant materials were the serious problems to carry out and to implement research studies. Hence, the provision of fund, budget allocation, scientific and relevant materials are essential to cover the whole research projects. Introduce and strengthen an attractive incentive and promotion mechanism for those who have done research especially, for qualified researchers. Workload and time constraints put its own negative impact on teachers' participation in research. Launch to assess and minimize the work load allocation practice of instructor-researchers especially, for the key research stakeholders.

   Launch a nation-wide and further research to assess the quality and implementation of the research studies and educational research conference in order to make more valuable research in solving educational problems.

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Declaration

The thesis is my original work and that all sources of materials used for the thesis have been duly acknowledged.

Name: Teklegerima Zenawi

Signature: ----------

Date: ----------

Place Addis Ababa University

This thesis has been submitted for examination with my approval as a university advisor

Signature: ----------

Dr. Dessalegn Chalchissa

May 2012

Addis Ababa, Ethiopia

Appendix 1

Addis Ababa University

School of Graduate Studies

Institute of Educational Research and Development

Questionnaire (To be Filled by Instructors)

Dear Respondents:

The purpose of the questionnaire is to study **the implementation and quality of research studies presented at the research conferences/ conducted at the colleges of Abyi Adi and Adwa**. All the questions included ask your perception or opinion in the implementation and quality of the research studies and they do not have "right" or "wrong" answers.

You have been selected to complete the questionnaire as part of the sample of the target population. The questionnaire is designed to get valued information; therefore, your honesty in giving genuine information will make the study meaningful. You are, thus, kindly requested to be honest and frank in your responses as this will have direct bearing on the success of the research.

Thank you in advance for your cooperation

Part I: General Information

1. Sex: male ☐ female ☐
2. Age: below 30 ☐ 30-35 ☐ 36-41 ☐ 42-47 ☐ 48-53 ☐ ≥54 ☐
3. Qualification: BA/BSc ☐ MA/MSC ☐ PhD ☐ If any other ☐
4. Field of study: ☐ if any other ☐
5. Year of teaching experience at the college: ☐ Place of Work College ☐
6. Have you ever participated at the research conference? Yes ☐ No ☐

   If you say yes, how often do you attend, often ☐ sometimes ☐ rarely ☐
7. Have you ever taken training how to conduct research? Yes ☐ No ☐ if you say yes, pre-service ☐ in-service ☐ both in-service and pre-service ☐
8. Have you ever conducted research at the college? Yes ☐ No ☐

   If you say yes, how many action researches ☐ how many applied Researches ☐
9. Have you ever taken training how to implement research studies into practice? Yes ☐ No ☐

   If you say yes, pre-service ☐ in-service ☐ both in-service and pre-service ☐
10. Have you ever published research journal? Yes ☐ No ☐

Part two:

Direction: Below are items related to the quality of research studies which are presented at research conference/conducted at the colleges of Abyi Adi and Adwa**.** Using the scale below, rate the level of your **satisfaction** with the following aspects of **quality of researc**h **studies** presented at the research conference /conducted at the colleges. According to the level of your satisfaction indicate your response by circling one of the following numbers.

1=Not Satisfied 2 = Minimal Satisfied 3= Undecided 4= Satisfied 5=Very Satisfied

N0	► Please Circle the Number for Each Statement That Comes Closest to Reflecting Your Level of **Satisfaction** About the **Overall Quality indicators of the Research Studies** ◄	**Not Satisfied(1)**	**MinimalSatisfied**	**Undecided(3)**	**Satisfied(4)**	**Very Satisfied(5)**
1	Funding for implementation of research recommendation	1	2	3	4	5
2	Funding for research publication	1	2	3	4	5
3	Availability of scientific and relevant facilities (such as scientific journals and books, video and tape recordings) for staff research work	1	2	3	4	5
4	Incentive and promotion for researcher/research	1	2	3	4	5
5	The college's efforts to assure and improve the quality of research	1	2	3	4	5
6	The research and publication office efforts to assure the quality of research	1	2	3	4	5
7	Training taken about action research in higher diploma program	1	2	3	4	5
8	Training/course taken about research in higher education	1	2	3	4	5
9	Quality of the presented research studies at the research conference/colleges	1	2	3	4	5
10	Quality of the presented/conducted action research at the college	1	2	3	4	5
11	The overall performance of researchers	1	2	3	4	5
12	The overall quality and values of the action research practiced at the college in solving educational problems	1	2	3	4	5
13	The overall quality of the applied research presented at the conference/conducted at the college in solving educational problems	1	2	3	4	5
14	Researchers' quality of work research	1	2	3	4	5
15	The overall values of the research studies presented at the research conference/conducted at the college in education	1	2	3	4	5

Part Three

Direction: Below are items related to the implementation and quality of research studies which are presented at the research conference/ conducted at the colleges of Abyi Adi and Adwa**.** Using the scale below, rate the level of effectiveness with the following aspects of implementation of research studies which are presented at the research conference /conducted at the colleges. According to the level of effectiveness implementation, indicate your response by circling one of the following numbers.

1= Not Effective 2= Minimal Effective 3= Undecided 4= Effective 5= Very Effective

N0	►Please **Circle** the Number for Each Statement That Comes Closest to Reflecting Your Opinion/Feeling About the **Level of Effectiveness of the Implementation Research Studies at the Colleges of Abyi Adi and Adwa.**◄	**Not Effective(1)**	**Minimal Effective(2)**	**Undecided (3)**	**Effective(4)**	**Very Effective(5)**
1	The Research recommendations are implemented into practice at the college	1	2	3	4	5
2	The extent of implementation and procedures of action research at the college	1	2	3	4	5
3	The extent of relationship between action research theory and its practice	1	2	3	4	5
4	The research recommendations actually solve educational problems at the college	1	2	3	4	5
5	Team/participatory research conducted at the college/presented at the conference	1	2	3	4	5
6	Collaborative/participatory action research conducted/reported at the college	1	2	3	4	5
7	Collaboration of research stakeholders in implementing research recommendations	1	2	3	4	5
8	Applicability/practicability of the recommended research recommendations	1	2	3	4	5
9	Relevance of the research recommendations	1	2	3	4	5
10	The research and publication office efforts to ensure research implementation	1	2	3	4	5
11	College's effort to implement research recommendations into practice/action	1	2	3	4	5
12	The actual problem solving ability of researchers at the college	1	2	3	4	5
13	Researchers' identification of significant problems /current issues	1	2	3	4	5
14	The practical values and outcomes of the research studies is used to research users	1	2	3	4	5
15	The contribution of the research studies presented at the conference/ at the college	1	2	3	4	5

Part Four

Direction: Below are items related to the implementation of research studies which are presented at research conference/ conducted at the colleges of Abyi Adi and Adwa. You are kindly requested to respond based on your perception about the implementation of the research studies into practice and the quality of the research studies which are presented/ conducted at the colleges. According to the level of your perception indicate your response by circling one of the following numbers.

1 =**Strongly disagree** **2 =Disagree** **3 = Undecided 4= Agree** **5= Strongly agree**

N0	**A. Practice and Implementation indicators** ►Please **Circle** the Number for Each Statement That Comes Closest to Reflecting Your Opinion/Feeling of **Agreement or Disagreement About the Practice and Implementation of the Research Studies.**◄	**Strongly disagree(1)**	**Disagree(2)**	**Undecided(3)**	**Agree(4)**	**Strongly agree(5)**
1	I participate in collaborative/participatory action research practice at the college	1	2	3	4	5
2	I often update my action research at the college collaboratively	1	2	3	4	5
3	I often spend time in conducting action research with the student- teachers	1	2	3	4	5
4	I spend time in conducting applied research in my classroom/ at the college	1	2	3	4	5
5	I participate in team/participatory applied research practice at the college	1	2	3	4	5
6	Teacher-researchers are often up-date their research activities at the college	1	2	3	4	5
7	In my classroom I implement new/active learning method using action research	1	2	3	4	5
8	I implement new idea by doing action research in my classroom/ at the college	1	2	3	4	5
9	I try to implement the research recommendations into practice at the college	1	2	3	4	5
10	I participate in the implementation of collaborative research recommendation	1	2	3	4	5
11	We implement the research recommendations into practice at the college	1	2	3	4	5
12	I give more attention to action research practice than other research	1	2	3	4	5
13	I give more attention to team/collaborative research implementation than alone	1	2	3	4	5
14	I play my role in the implementation of research studies based on recommended	1	2	3	4	5
15	I give more attention to collaborative action research practice than alone	1	2	3	4	5
16	The college give attention to implement research recommendations collaboratively	1	2	3	4	5
17	Research and publication office give attention to collaborative research implementation	1	2	3	4	5
18	The colleges give attention to collaborative/ participatory action research practice	1	2	3	4	5
19	Researchers implement their action research in a cyclic way at the college	1	2	3	4	5
20	Researchers play their role in the implementation of their recommendations	1	2	3	4	5
21	Majority of the action researches are actually practiced collaboratively	1	2	3	4	5
22	Majority of the research recommendations are practiced/ implemented at the colleges	1	2	3	4	5
23	The forwarded solutions/recommendations of action research are being practiced	1	2	3	4	5
24	There is practical relationship between research recommendation and its practice	1	2	3	4	5

25	Researchers provide concrete evidence in their implementation recommendation	1	2	3	4	5
26	Research stakeholders collaboratively implement research recommendations	1	2	3	4	5
27	There is relationship between researcher and recommended stakeholders in the implementing research recommendation at the college	1	2	3	4	5
28	Majority of the researchers implement their recommendations with the recommended stakeholders	1	2	3	4	5

N0	**Quality indicators** ►Please **Circle** the Number for Each Statement That Comes Closest to Reflecting Your Opinion/ Feeling of **Agreement or Disagreement About the Quality of the Research Studies Presented at the Research Conference/Conducted at the Colleges of Abyi Adi and Adwa.**◄	strongly disagree(1)	disagree(2)	undecided(3)	agree(4)	strongly agree(5)	5
29	Researchers provide concrete evidence in their action research at the conference	1	2	3	4	5	
30	Researchers collect data using different instruments from the concerned subjects in their action research	1	2	3	4	5	
31	The actual practice of the action research in the real situation is credible/trustworthy	1	2	3	4	5	
32	The findings of the applied research studies at the conference are based on adequate data	1	2	3	4	5	
33	Researchers collect baseline data before implementing their action research	1	2	3	4	5	
34	Researchers collect data from different concerned subjects using different instruments as they present their applied research at the conference/college	1	2	3	4	5	
35	The findings of the applied research studies report at the conference are credible/trustworthy	1	2	3	4	5	
36	The findings of the applied research present can bring changes on policy and practice	1	2	3	4	5	
37	The applied research studies report at the conference are relevant in educational problems	1	2	3	4	5	
38	The applied research recommendations present at the conference are applicable at local	1	2	3	4	5	
39	I think that there is a quality base practiced of action research at the college	1	2	3	4	5	
40	The researchers' quality of work applied research-led to implement at the local/college	1	2	3	4	5	

N0	**Problem solving indicators** ►Please **Circle** the Number for Each Statement That Comes Closest to Reflecting Your Opinion/Feeling of **Agreement or Disagreement** About the **Research Studies in solving Educational problem at the Colleges.**◄	**Strongly disagree(1)**	**Disagree(2)**	**Undecided(3)**	**Agree(4)**	**Strongly agree(5)**
41	I solve educational problem by doing action research in my classroom	1	2	3	4	5
42	The results of action researches conduct/present at the college are problem solver	1	2	3	4	5
43	I improve my teaching practice by doing action research at the college	1	2	3	4	5
44	In our staff we solve problems collaboratively using action research	1	2	3	4	5
45	I solve problems better because I participate with the applied research stakeholders	1	2	3	4	5
46	The results of the applied research studies present at the conference are problem solver	1	2	3	4	5
47	The research users are benefited from the report applied research recommendation	1	2	3	4	5

Part Five: Open-ended questions

1**.** What do you think the quality and values of the research studies in education which are presented at the research conferences? ----------

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2. Would you list the barrier of implementation of research recommendations into practice at the college?

3.What do you think the reasons that hinder engagement of teacher-researchers in quality of research?---------

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4.What do you think the reasons that hinder engagement of instructors in research activities at the colleges?--

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5. What measures should be taken to implement and assure quality of research studies?----------

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Appendix 2

Interview

Interview for deans and vice deans of the colleges, curriculum experts, staff development units, pedagogy, and department heads.

General guideline questions for interviewees

The purpose of the interview is to study the implementation and qualities of research studies which are presented at the research conference of Abyi Adi and Adwa Colleges of Teacher Education. All the questions included ask your perperception or opinion, observation and experience. Therefore, you have been selected to be answered the questions as a part of the participant of the study.

1. Do you think that the research recommendations are implemented at the College? Which study has been implemented?

2 . Are the particular recommended bodies collaboratively implementing the research recommendation?

3. Could you judge the quality of the research studies which are presented at the research conference? How?

4. Do you think that action research is implemented properly at the college, particularly in the classroom? What about the collaborative level of action research at the college?

5. What is the quality of action research in solving educational problem?

6. Could you explain the major factors that affect the implementation of research recommendations?

7. What is the value and contribution of the research studies in education at the college? Can the findings/recommendations value add in the classroom? Do research users benefit from the research?

8. Would you explain that the stakeholders should participate in the implementation of research studies at the college? What about their roles?

9. Do you think the research studies can change policies and quality of education? Can they improve students' academic potential?

10. Do you think that the research studies are problem solvers? Are the recommendations applicable/practicable at the college/local level and classroom?

Interview for Researchers, RPOs, HDLs and Research Publication Committees

1. Have you ever implemented research findings/ recommendations in your classroom/ college? Which research has been implemented?

2. Have you ever developed intervention while conducting research? What about training session and materials?

3. Is there any research understudy purposefully for the sake of replicable study at the college? How?

4. Would you explain the stakeholders who participate in the implementation of educational research studies at the colleges? What about their roles?

5. Could you judge the quality of the research disseminated at the conference? Is there any Publication as a journal?

6. Do you think that the researchers really conduct research on the ground of educational problems? Do the researchers identify current issues/significant problems?

7. Do you think that the research studies are problem solver? To what extent is it solving problems at the college?

8. Do you think that the recommended stakeholders participate at the research conference? What about their participation?

9. How is the selection of research papers? What are the criteria of selection?

10. To what extent is quality work of action researches implemented at the colleges? Is there any action research done collaboratively at the college?

11. To what extent is the action research solving educational problem at the college?

Interview for REBO and CEREBO

1. Have you ever participated at the research conference of Abyi Adi and Adwa colleges?
2. What do you think about the quality of the research practices which are presented at the research conferences?
3. Are there any research findings used at national or regional level for educational policy work? Have you ever used the findings of the research as a base of the educational work?
4. What about the implementation status of the research findings?

Appendix 3

Focus Group Discussion

General guideline questions

The purpose of the Focus Group Discussion (FGD) is to study the implementation and qualities of research studies which are presented at the research conference of Abyi Adi and Adwa Colleges of Teacher Education. All the questions included ask to share your perception or opinion, observation and experience. Therefore, you have been selected to be shared and exchanged as part of the participants of the members of Focus Group Discussion of the study.

1. Could you explain the value of the research studies which are presented at the research conference? Do research users benefit from the research?
2. Could you judge the quality of the research studies? Do you think that the research findings/recommendations are practicable/ applicable at local level/classroom?
3. To what extent are the research findings/recommendations implemented that presented at the research conference? How?
4. How do you evaluate the quality of the research? Is there any research publication?
5. Do you think that the presenters/researchers conduct on current issues/significant problems of education? Are the researchers/presenters conducting the research by themselves?
6. Would you explain the contribution of the stakeholders in the implementation of educational research studies at the colleges?
7. Could you tell us the factors that affect the implementation of research studies?
8. What do you think the quality and implementation of action research at the college? Do you think the action researches are problem solver and practical value adding?
9. What do you think the process of action research? Do you think collaborative action researches are conducted at the college?
10. Do the recommended stakeholders participate at the research conference? What about the particular recommended bodies?

Appendix 4

Action Research Document Analysis

Case	Themes		Categories
	The SMART of research problem		
	Cycles of implementation		
	Stages of action		
	Validity	Internal	
		External	
	Reliability	Internal	
		External	
	Triangulation	Data collected from	
		Qualitative and quantitative	
		Methods used	
		Team Vs alone	
	Credibility	Thickness of data	
	Methods of analysis	Qualitative	
		Quantitative	
	Appendix	Attachment	
		Fit of measurement items	

Appendix 5

Document Analysis of Applied Research

Case	Themes		Categories
	Validity	Internal	
		External	
	Reliability	Internal	
		External	
	Triangulation	Data collected from	
		Qualitative and quantitative	
		Methods used	
		Team Vs alone	
	Credibility	Thickness of data	
	Methods of data analysis	Qualitative	
		Quantitative	
	Recommendation	Recommended body	
		Practicability	
	Appendix	Attachment	
		Fit of measurement items	

Appendix 6

Pilot Test of the Satisfaction Scales

Reliability coefficient No= 31, No of items= 15, alpha=890

Cronbach's Alpha	Cronbach's Alpha Based on Standardized Items	No of Items
.890	.898	15

Item	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Cronbach's Alpha if Item Deleted
1	389.6774	185.892	.275	.896
2	389.4194	157.985	.800	.871
3	388.9355	185.529	.218	.901
4	389.3548	177.637	.561	.883
5	389.8710	169.049	.658	.879
6	389.1935	172.828	.607	.881
7	389.5806	165.185	.739	.875
8	389.7097	165.146	.760	.874
9	389.5161	174.458	.614	.881
10	389.6129	167.045	.898	.870
11	389.3548	181.637	.611	.883
12	389.1935	185.561	.703	.884
13	388.6452	188.837	.350	.890
14	388.8387	184.473	.417	.889
15	389.3548	179.637	.450	.888

Pilot Test of the Effectiveness Scales

Reliability coefficient No= 31, No of items= 15, alpha=899

Cronbach's Alpha	Cronbach's Alpha Based on Standardized Items	N of Items
.899	.897	15

Item	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Cronbach's Alpha if Item Deleted
1	368.6129	569.578	.450	.898
2	369.0000	521.200	.807	.882
3	367.3226	597.559	.255	.905
4	368.4516	550.189	.806	.885
5	368.5484	604.589	.402	.898
6	367.8065	576.428	.654	.891
7	368.7419	538.998	.718	.886
8	369.2581	536.398	.746	.885
9	369.2903	530.813	.676	.888
10	367.8065	627.361	.093	.907
11	367.7419	597.798	.421	.897
12	367.9355	558.729	.755	.887
13	366.4194	589.652	.408	.898
14	368.0645	501.196	.787	.883
15	368.2258	543.647	.706	.887

Pilot Test of the Likert Scale

Reliability coefficient No= 31, No of items= 47, alpha=901

Cronbach's Alpha	Cronbach's Alpha Based on Standardized Items	N of Items
.901	.932	47

Item	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Cronbach's Alpha if Item Deleted
1	1177.6129	30277.178	.357	.900
2	1177.3226	30203.359	.390	.900
3	1177.7097	30004.080	.371	.899
4	1177.7097	30219.413	.340	.900
5	1178.3226	29997.359	.446	.899
6	1177.7419	30117.131	.329	.900
7	1178.2581	29844.131	.368	.899
8	1179.3226	28988.626	.702	.896
9	1179.6452	28932.970	.704	.896
10	1176.0968	29636.957	.176	.904
11	1179.4516	29472.789	.490	.898
12	1179.1613	29332.273	.554	.897
13	1175.9032	30997.490	.119	.906
14	1177.6452	29106.437	.707	.896
15	1178.2581	28798.198	.569	.897
16	1179.4194	28968.518	.676	.896
17	1177.6452	30038.837	.227	.901
18	1178.0645	29580.662	.542	.898
19	1177.2581	30816.598	.382	.906
20	1178.4516	29239.256	.623	.897
21	1178.1935	29343.761	.628	.897
22	1180.3871	29200.045	.468	.898

23	1179.9032	29505.424	.443	.898
24	1180.5484	29154.656	.525	.897
25	1180.2903	29015.146	.606	.897
26	1179.9032	29121.824	.627	.897
27	1177.6129	29022.378	.424	.898
28	1178.2581	28708.465	.700	.895
29	1180.2258	28468.314	.699	.895
30	1179.3548	29944.503	.317	.900
31	1180.0968	29504.557	.590	.898
32	1179.1290	29084.516	.564	.897
33	1181.0645	28839.862	.553	.897
34	1178.0645	29051.729	.261	.903
35	1182.0000	28791.600	.675	.896
36	1182.4839	28237.858	.695	.895
37	1183.1613	28279.673	.712	.894
38	1183.5484	28528.656	.553	.896
39	1183.5161	28968.058	.394	.899
40	1182.8387	29231.473	.415	.899
41	1183.3548	29300.770	.418	.899
42	1183.2258	29108.714	.470	.898
43	1177.2903	32328.546	.292	.919
44	1181.9677	29324.166	.256	.902
45	1180.5484	29465.523	.440	.898
46	1180.8387	30219.073	.170	.901
47	1180.0968	29688.490	.283	.900

Analysis Statistics of the Satisfaction Scale

Reliability coefficient No= 156, No of items= 15, alpha=911

Cronbach's Alpha	Cronbach's Alpha Based on Standardized Items	N of Items
.911	.908	15

Item	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Cronbach's Alpha if Item Deleted
1	895.0192	120707.245	.711	.901
2	892.9103	122480.508	.652	.904
3	893.5897	123135.805	.641	.904
4	895.0192	122707.309	.636	.904
5	891.5641	120005.060	.744	.900
6	892.0000	120404.181	.735	.901
7	900.1923	122496.324	.787	.900
8	898.9167	123992.722	.580	.906
9	897.0897	125991.114	.518	.908
10	917.3910	134765.711	.232	.917
11	913.2051	133802.835	.358	.912
12	895.7628	120011.524	.799	.899
13	889.7885	122459.007	.672	.903
14	895.8462	118124.505	.857	.896
15	917.2051	137154.500	.248	.919

Analysis Statistics of the Effectiveness Scales

Reliability coefficient No= 31, No of items= 15, alpha=905

Cronbach's Alpha	Cronbach's Alpha Based on Standardized Items	N of Items
.905	.904	15

Item	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Cronbach's Alpha if Item Deleted
1	970.5385	119284.702	.556	.900
2	968.4295	120780.943	.506	.902
3	969.1090	121332.949	.496	.902
4	961.1603	116941.490	.683	.895
5	961.3077	112373.337	.852	.888
6	961.7436	112711.263	.843	.889
7	965.2821	116727.688	.825	.891
8	963.2372	118796.363	.606	.898
9	962.9231	120780.794	.525	.901
10	986.0833	125167.251	.389	.905
11	975.3462	124604.112	.426	.904
12	961.1667	114130.824	.818	.890
13	972.2115	121435.381	.490	.902
14	971.6154	114943.258	.763	.892
15	992.6154	132267.438	.111	.914

Analysis Statistics of the Likert Scale

Reliability coefficient No= 156, No of items= 47, alpha=941

Cronbach's Alpha	Cronbach's Alpha Based on Standardized Items	N of Items
.941	.954	47

Item	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Cronbach's Alpha if Item Deleted
1	1934.5806	288124.918	.203	.942
2	1934.9677	287600.632	.360	.942
3	1933.2903	287719.480	.341	.942
4	1934.4194	288404.452	.150	.942
5	1934.5161	289147.658	.202	.942
6	1933.7742	288792.581	.119	.942
7	1934.7097	288550.146	.172	.942
8	1935.2258	288525.181	.180	.942
9	1935.2581	288409.131	.103	.942
10	1933.7742	289065.047	.130	.942
11	1933.7097	288370.080	.193	.942
12	1933.7742	288208.114	.269	.942
13	1932.4516	287946.923	.332	.942
14	1934.0323	287755.366	.260	.942
15	1934.1935	288591.628	.260	.942
16	1891.8710	261405.783	.728	.938
17	1886.8387	259056.673	.739	.938
18	1890.2581	261577.798	.761	.938
19	1886.9355	260145.662	.737	.938
20	1883.5484	258340.123	.776	.938
21	1885.8387	259441.340	.776	.938

22	1889.0645	260751.596	.738	.938
23	1909.4839	274119.191	.395	.942
24	1907.8710	273530.183	.392	.942
25	1894.5806	260215.385	.693	.939
26	1892.5806	265725.585	.655	.939
27	1885.9032	259830.957	.771	.938
28	1884.7097	258428.213	.784	.938
29	1888.8387	258445.740	.767	.938
30	1909.4839	276021.125	.275	.944
31	1930.3871	279562.712	.626	.940
32	1929.8710	279400.316	.634	.940
33	1930.0323	279867.499	.616	.940
34	1930.2903	279592.480	.635	.940
35	1930.3871	279614.512	.623	.940
36	1930.0000	279814.867	.612	.940
37	1930.0968	279385.090	.641	.940
38	1930.5161	279673.391	.624	.940
39	1930.6129	279708.112	.619	.940
40	1930.2903	279894.346	.611	.940
41	1930.2581	279879.331	.613	.940
42	1929.9355	279610.796	.639	.940
43	1929.5484	279708.989	.636	.940
44	1930.0000	279479.600	.644	.940
45	1930.0323	279576.832	.640	.940
46	1930.3226	279895.826	.603	.940
47	1929.9355	279753.996	.617	.940

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Appendix 7
The Results of the Interviews

Cases	Themes	Categories
Applied research presented at the research conferences and conducted at the colleges of Abyi Adi ana Adwa	*Quality of the research	Most are poor They doubt the quality Minimum requirements No replicable study purposefully Some are good poor quality work Less in validity and reliability
	Significant of the problems and whether the research done on ground	Most are relevant problems Most are current issues/timely However, not take feasibility Some are homemade/not done on ground Some are irrelevant Some are not up-dated Difficult to judge
	The selection of research papers and its criteria	Simply by abstract No clear criteria Some are not purposefully done RPOs do not have related qualification More over they lack specialization .May not done in the field of study properly .Thesis and dissertation not updated .Even the RPO don't take part in quality
	Applicability of the recommendation	Some are more/less applicable Some are recommended at local Others not relevant recommended . Some are not applicable . Others are for national . Some are relevant
	Change on policy and practice	It cannot change at national level Some may improve students at local No quality work research to change policy . May be at local . Some can change into classroom
	**Implementation of research recommendations	Except norm to criteria reference and medium of instruction into Tigrigna at the colleges no implement at all The rest not implemented because: No implement recommended recommendation No attention of researchers and recommended stakeholders No commitment of stakeholders, researchers and recommended No one care and follow-up after the presentation Not yet practiced No collaborative work
	Training session and materials about how to implement	Rarely taken No training material developed No one developed intervention No training session taken Rarely discussion No purposefully developed
	*Problem solving ability	Not actually problem solver No improvement quality of education Not done on the ground of educational problem Nothing solve educational problem Because of not implemented They are Shelf

	*Values and contribution of the research in education	Less practical value Not value added as its purpose Rarely only for participants' conference Not contributed as required Minimal value in classroom practice Not practical valuable Since not published The contribution is less Research users not benefited
	*Factors/challenges that affect to implement research studies	Lack of: Quality work research Commitments and initiation Fund and Budget allocation Knowledge and skills Training Experience and facilities Time constraints Collaborative recommended practicable recommendation Of follows up after presentation Integration policy makers and researchers
	The stakeholders should participate in implementing	Researchers and policy makers Educational administration Teachers and students NGOs such as VSO, IQPEP, GEIQP Educational institutions Educational stakeholders Mainly recommended stakeholders
	The level of participation of stakeholders at the research conference	Educational stakeholders No participate particular recommended May be indirectly No purposefully particular recommended The participation is less Randomly some may not concerned body Some are irrelevant The number of participants are less The discussion is not as required
	*The level of collaboratively recommended stakeholders in implementing	No implement collaboratively No integration researcher-stakeholders Less participatory research No integration policy makers and researchers No collaborative among recommended stakeholders
Action research conducted /presented at the colleges	*Quality of action research	Almost poor Very rarely quality Not quality work in real situation No quality of work in classroom No common understand practitioners did not give attention to quality
	*Implementation of action research	Not yet implemented in real situation Not cyclic way in real situation Some are homemade Not actually practiced For the sake of result oriented and report For the sake of participation Not related theory and its practice Not reality on the ground Less practical value Very low process. Not yet evaluating and monitoring

	*Problem solving	Less problem solving Not yet problem solver.	Very rarely improve situation They recommend to solve by others
	Collaboratively of action research	Less collaborative Minimal collaborative process There is disagreement	Less involvement of collaboration Less participation and participatory

Appendix 8

The Results of Focus Group Discussions

Cases	Themes	Categories		
		Frequently mentioned	**Sometimes mentioned**	**Rarely mentioned**
Quality of the applied research studies	*Values and contribution in education	.Less value added .Almost little practical value and contribution .Nothing research published at the colleges . Research users not benefited	.Only the participants share experience at the conference	.They are shelved . Nothing practical value and contribution
	.*judging on quality	. Low status of quality . Most of them are poor .Poor quality of work. . Less validity and reliability	.Some are good . Some are doubtful .Most of them not indicate quality	.Some are interesting .Some are below the standards
	. Practicability of recommendation	.Most of them are applicable and practicable	.Some needs up-date	.Some are not practicable
	.Significant of the Problems	. Most are significant . Current issues	. Relevant in educational problems	. Some are irrelevant and not updated
	.Actually done on ground	. Difficult to judge .Doubtful feasibility . Less done on ground	.Not show feasibility . Not yet done	. They are report . Some may be homemade
The implementation of applied	*The extent of research recommendation implementation	. All were not implemented .No one try to implement .No one follow up and care after the presentation	.Except few not implement at all .Two researches were partially implemented	.none implementation at all
	.Participation of recommended stakeholders at the conference	.Not particular recommended stakeholders participated purposefully .Not all participants share ideas	.Not yet stakeholders .Some may not concern .May not directly concerned	.Some participants know nothing. .Irrelevant participants

	*Factors that affect/challenges in implementing of recommendation	Lack of: .Commitment .Follow up and initiative .Funding/budget allocation .Quality research .Attention researchers and recommended stakeholders .Integration policy makers and researchers	.Lack of: .Collaborative work .Knowledge and skill .Attention the colleges and RPO .Training how to implement	Lack of: .Research culture .Relevant facilities .Practicability of recommendation
	*Problem solving	.Not yet problem solver .Nothing solve problem	.Insignificant in solving problem	.Very few solve problem
Action research	*Quality	. Almost poor . No in quality and performance . Low status of quality	. Less done on ground . Poor quality of work . Low standard	.Partially good .Below the requirements
	.The process	.Less process and involvement .Instead of purposive, randomly selected .They recommend to other persons instead of solving it themselves	.They do not know the components and procedures .They do not use the process	.Complex procedures .Do not differentiate from other types of research
	*Implementation of action strategy	. Practically not implemented .Not actually implemented in a cyclic . Poor quality of work in the field . For the sake of result oriented and participation . Not actually done in real situation and classroom	. Partially implemented .They are not action research because actions not taken .Most are report .Some are homemade	.No difference from other types of research .Few may be partially implemented
	*Problem Solving	Not certain problem solver Very rarely solve problem	Less values in solving problem Not yet improve situation	Nothing solve problem
	Values	.Less value .less practical value	Some may be valuable Not as required	.Most are paper value
	Level of collaborative	Rarely collaboratively Minimal involvement	Not formal collaboratively	Some are collaborative