

**INVESTIGATING AND IMPROVING REFLECTIVE TEACHING IN ETHIOPIAN
SECONDARY SCHOOL TEACHER EDUCATION INSTITUTIONS**

by

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DECLARATION BY THE STUDENT

I, Berhanu Mekonnen Yimer, hereby declare that this study *entitled Investigating and Improving Reflective teaching in Ethiopian Secondary School Teacher Education Institutions* is my work, that it has not been submitted before for any degree or examination in any other university and that all the sources I have used or quoted have been shown and duly acknowledged by means of complete references.



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DEDICATION

This research study is dedicated to my wife, Mrs Mulu Shikur, my children, Aaron, Canaan and Johanan for their encouragement and support throughout this study.

ABSTRACT

The purpose of this study was to investigate and improve reflective teaching in the Ethiopian Secondary School Teacher Education Institutions (TEIs). This study used a mixed methods research approach that employed a concurrent triangulation design. For data collection, the study utilized a structured questionnaire, a semi-structured individual and group interviews. The data collection instruments were utilized to solicit pre-service teachers', teacher educators', and cooperating teachers' (mentors') views on reflections and how reflective teaching in the pre-service teacher secondary school teacher education framework is being implemented. The study particularly aimed to investigate how the pre-service teachers view reflective teaching, identify the hindrances for effective reflective teaching practice, and discover strategies that could be used to improve the practice. Prominent reflective scholars' theories and outlooks on reflective practice were reviewed and used to guide the study.

The responses of the stakeholders on the nature and implementation of reflective practices were analyzed quantitatively and qualitatively. For the quantitative data analyses, both the descriptive statistics and inferential statistics were employed. On the other hand, narration was used to analyze the qualitative data. Triangulation of the study was observed by presenting and interpreting the qualitative data with reference of the quantitative data. The research questions were answered as the researcher analyzed the responses that the pre-service teachers hold to the reflective teaching, as well as the method, situation and issues of the reflective teaching practice in the pre-service teacher education curriculum framework.

The study uncovered that secondary schools' pre-service teachers in the existing teacher education programme were practicing few reflective teaching tools. The findings indicated that the pre-service teachers hold fair insights of reflective teaching, yet they felt less capable of doing reflective teaching critically. The findings indicated that the pre-service teacher education programme faced a number of barriers to effective reflective teaching practice. The findings also raised concerns over writing journals,

instructional technology, teaching portfolios, and action research projects for reflective teaching in the pre-service teacher education programme. The study has identified key strategies that may be useful for the Ministry of Education, teacher educators, cooperating teachers, and teacher education institutions who are responsive for reflective teachers in Ethiopia.

Keywords: Teacher Education, Reflective Teaching, Reflective practice, Teacher Education Institutions, Pre-service Teachers, Teacher Educators, and Cooperating Teachers (mentors)

GO NYAKIŠIŠA LE GO HLABOLLA GO RUTA KA DITAETŠO KA GO DIHLONGWA TŠA THUTO YA BARUTIŠI BA DIKOLO SE SE PHAGAMEGO SA ETHIOPIA

KGOPOLO

Maikemišetšo a thuto ye e be e le go nyakišiša le go hlabolla thuto ya taetšo go Dihlongwa tša Thuto ya Borutiši Dikolong tša Ethiopia (TEI). Thuto ye e šomišwa mokgwa wa diphatišišo wa mekgwahlakantšho yeo e šomišago tlhamo ya go šoma mmogo ka ditsela tša go hlama khutlotharo. Go kgoboketša ya datha, thuto ye e šomišitše letlakalapotšišo la sebopego sa go ikgetha, dipoledišano tša mošomo la motho le sehlopha seo se hlamegilego gannyane. Didirišwa tša kgoboketša ya datha di šomišitšwe go hwetša barutiši ba pele ga kabo ya tirelo, barutiši ba go ruta, le barutiši ba go šomišana (baeletši) ditaetšo le mmono ka ga ka fao thuto ya taetšo e phethagatšwago ka go tlhako ya thuto ya barutiši ba thuto ya sekolo se se phagamego. Thuto gabotse e nepile go nyakišiša ka fao barutiši ba ditirelo tša go thoma ba bonago thuto ya taetšo, go hlaola ditšhitišo tša tiragatšo ya maswanedi ya go ruta ka mokgwa wa ditaetšo le go lemoga maanotšhomo ao a ka kgonago go tlabolla tiragatšo. Diteori tša baithuti ba maemo ba go diriša ditaetšo le mmono mo go tiragatšo ya taetšo di lebeletšweleswa le go šomišwa go hlahla thuto ye.

Dikarabo tša baamegi go mohuta le phethagatšo ya tiragalo ya taetšo di lekotšwe ka dipalopalo le boleng. Go dikahlaahlo tša datha ya dipalopalo, bobedi dipalopalo tša go hlalosa le tša tšhupetšo di šomišitšwe. Ka letsogong le lengwe, tlhaloso e šomišitšwe go ahlaahla datha ya boleng. Go dira gore thuto e tšwe dikhutlotharo e lebeletšwe ka go ruta le go tlhathollela ka datha ya boleng go lebeletšwe datha ya dipalopalo. Dipotšišo tša diphatišišo di arabilwe bjalo ka ge monyakišiši a lekotše dikarabo tša barutiši ba pele ga tirelo go tliša thuto ya taetšo go tee le mokgwa, maemo le ditaba ka ga tshepedišo ya thuto ya taetšo ka go tlhako ya kharikhulamo ya thuto ya barutiši bja pele ga tirelo.

Thuto e utullotše go re barutiši ba sekolo se se phagamego sa pele ga tirelo ka go lenaneo le le lego gona la thuto ya barutiši ba be ba diriša didirišwa tše nnyane tša taetšo ya thuto. Dipoelo di laeditše gore barutiši ba pele ga kabo ya tirelo ba bile le pono ka ga thuto ya taetšo, eupša ba be ba sa kwe ba kgona go ruta ka mokgwa wa taetšo. Dipoelo di laeditše go re lenaneo la thuto ya barutiši bja pele ga kabo ya tirelo ba lebane le ditšhitišo tše mmalwa go tshepedišo ya maleba ya thuto ya taetšo. Dipoelo gape di tlišitše kamego ka ga go ngwala ditšenale, thekenolotši ya go ruta, diphotefolio tša go ruta le diprotšeke tša tiro ya diphatišišo go fihlelela thuto ya taetšo ka go lenaneo la thuto ya tirelo ya go ruta. Thuto e hlaotše maanotšhomo a motheo ao a ka bago le mohola go Kgoro ya Thuto, barutiši, barutiši bja bašomišane le dihlongwa tša thuto ya barutiši tšeo di ikemišeditšego go hlahla barutiši ba go ikarabela go taetšo mo Ethiopia.

Mantšu a bohlokwa: Thuto ya barutiši, thuto ya taetšo, tiro ya taetšo, dihlongwa tša thuto ya barutiši ya godimo (diTEI), barutiši ba ditirelo tša motheo, barutiši ba go ruta, barutiši ba go šomišana (baeletši)

ONDERSOEK NA EN VERBETERING VAN BESINNENDE ONDERRIG IN DIE OPLEIDING VAN HOËRSKOOLONDERWYSERS IN ETHIOPIË

OPSOMMING

Die doel van hierdie studie was om besinnende onderrig aan Ethiopiese opleidingsinstellings vir hoërskoolonderwysers te ondersoek en te verbeter. Verskeie metodes en 'n triangulasieontwerp is in hierdie studie gevolg. Data is deur middel van 'n gestruktureerde vraelys en halfgestruktureerde individuele en groeponderhoude ingesamel. Studenteonderwysers, onderwyseropvoeders en medewerker-onderwysers (mentors) se siening van hoe besinnende onderrig in die raamwerk van hoërskoolonderwysers se opleiding neerslag vind, is verkry. Daar is in die besonder op studenteonderwysers se opvatting oor besinnende onderrig gekonsentreer. Struikelblokke in die weg van doeltreffende besinnende onderrigpraktyk en strategieë om dit uit die weg te ruim, is aangetoon. Die teorieë en gesigspunte van vooraanstaande kenners van besinnende onderrigpraktyk is bestudeer, en het rigting aan hierdie studie verleen.

Belanghebbers se reaksie op die aard en inwerkingstelling van besinnende praktyke is kwantitatief en kwalitatief ontleed. Sowel die beskrywende as die afgeleide statistiek is in die ontleding van die kwantitatiewe data gebruik. Die kwalitatiewe data, daarteenoor, is met behulp van vertellings ontleed. Die kwalitatiewe data is met verwysing na die kwantitatiewe data vertolk te einde reg te laat geskied aan die triangulasie van die studie. Die navorsingsvrae is beantwoord namate die navorser die reaksie van studenteonderwysers op besinnende onderwys ontleed het asook die metode en situasie daarvan, en die probleme daarmee in die kurrikulum van studenteonderwysers.

Daar is bevind dat weinig studente wat as hoërskoolonderwysers opgelei word, die tegnieke van besinnende onderwys toepas. Volgens die bevindings weet studente wel van besinnende onderwys, maar voel dat hulle nie tot kritiese besinnende onderwys in

staat is nie. Daar was 'n hele paar struikelblokke in die onderwysersopleidingsprogram vir besinnende onderwyspraktyk. Die bevindings is kommerwekkend wat betref die skryf van joernale, onderrigtegnologie, onderwysportefeuljes en aksienavorsingsprojekte vir doeltreffende onderwys in die onderwysersopleidingsprogram. Verskeie strategieë is aangetoon wat van nut kan wees vir die ministerie van Onderwys, die opleiers van onderwysers, medewerker-onderwysers en instellings wat onderwysers oplei om sensitiewe, besinnende onderwysers in Ethiopië te word.

Sleutelwoorde: Onderwyseronderrig, besinnende onderwys, besinnende praktyk, onderwyseropleidingsinstellings (OOI's), studenteonderwysers, onderwyseropvoeders, medewerkeronderwysers (mentors)

LIST OF ABBREVIATIONS AND ACRONYMS

Acronym	Expanded Version
ANOVA	Analysis of Variance
CPD	Continuous Professional Development
CT	Cooperating Teacher
EHIs	Ethiopian Higher Education Institutions
PD	Professional Development
HE	Higher Education
HEI	Higher Education Institution
ICT	Information Communication Technology
MoE	Ministry of Education
PGDT	Postgraduate Diploma in Teaching
Prof	Professor
QUAL	Qualitative
QUAN	Quantitative
SPSS	Statistical Package for Social Sciences
ETEIs	Ethiopian Teacher Education Institutions
TE	Teacher Educator
TEIs	Teacher Education Institutions
TESO	Teacher Education System Overhaul
TPD	Teacher Professional Development
UNESCO	United Nations Educational and Scientific Organization
UNISA	University of South Africa

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CHAPTER 1

ORIENTATION

1.1 INTRODUCTION

This research focuses on secondary school pre-service teachers who are teaching in the Ethiopian secondary schools. It examines a range of reflective practices which all graduate teachers need to be conversant with. The impact of the national policy to raise educational standards, and the wider academic research that informs and underpins new approaches to teaching and learning, have both contributed to continuing expansion of a curriculum for professional studies (MoE, 2009; Thorsen & DeVore, 2013; Kumari, 2014; Amakyi & Ampha-Mensha, 2014; Katitia, 2015; MoE, 2016).

The reflective teacher education programme informs pre-service teachers to be reflective practitioners who require multi-agency professionals, including teachers; to work together to support children and young people (Darling-Hammond, 2006). Moreover, to such novel aspects, there are significant priorities for pre-serving teachers, such as knowing how to instruct. Reflective teacher programme, key for teachers' training and future professional development (PD), is appearing the most persistent idea in educational reform and educational research to meet the requirements of the ever demanding society and ensuring quality of education (Ayele, 2010; Taole, 2011; MoE, 2016).

Reflective teaching is viewed as vigorous, determined, and careful thought of whatever kind of cognition in the light of the grounds that support it and further conclusion to which it tends (Dewey, 1933:9). The importance of reflective teaching for pre-service and beginner teachers has been well documented (Dewey, 1933; Schön, 1987; Darling-Hammond, 2006; Nolan, 2008). Scholars have recognized the worth of reflection as an appropriate way for practitioners and professionals to make better their practice (Dewey, 1933; Schön, 1987; Darling-Hammond, 2006; Nolan, 2008). Reflection allows pre-service teachers provide purposeful deliberation about accomplishment with an opinion toward its improvement, face unanticipated states and individual student styles,

link theory to teaching, and be aware of and deepen their understanding how their own values, beliefs and incidences influence teaching (Dewey, 1933; Schön, 1883,1987; Darling-Hammond, 2006; Nolan, 2008).

Reflective teaching has become recognized in many country teacher education programmes. As a consequence, a number of models and curricula have been developed in teacher education programmes to provide frameworks for teacher preparation (Amakyi & Mensah, 2014; Sellars, 2014; Chandram, 2014; Dymoke, 2013; Scales, 2013; Hagevik, Aydeniz & Rowell, 2012; Ghaye, 2011; Carlin & Neidhart, 2004; Akyeampong, 2006).

In reflective teacher education frameworks, the utilization of reflective practices to enhance pre-service teachers' reflection is prevalent (Hébert, 2015). As a result, teacher education students in these programmes are oftentimes required to observe and conduct lessons and then reflect on those experiences (Ross, 2002; Loughran, 2002; Hébert, 2015). However, reflection is frequently employed in these programmes without a full consideration of its nature (Ross, 2002; Hébert, 2015; MoE, 2016). For this reason, reflective exercises in such teacher trainings are adopted uncritically, which lacked to describe the key features of the approaches used for effective reflections (Ross, 2002:682-688; Hébert, 2015:361-371; MoE, 2016). As a consequence, the reflective tasks are often unclear, coming along a scope from a simple view about knowledge and experience to a predetermined practice (Loughran, 1996; Loughran, 2002).

In addition, studies demonstrated that pre-service teachers are frequently report around their teaching practices just to suit course requirements instead of for the reason of deeper understanding and investigation of the teaching and learning experiences (Loughran, 2002; Ross, 2002). Furthermore, the pre-service teachers and teacher educators in these teacher arrangements think reflective teaching time-intensive handle (Loughran, 2002; Ross, 2002). As a result, pre-service teachers are repeatedly called to complete reflections for a number of courses with inconsistently adopted criteria. Besides, teacher educators provide feedbacks on pre- service teachers' reflective tasks without a common set of expectations and methods of evaluations (Loughran, 2002; Ross, 2002).

Having been in the teacher education institution for 10 years, the researcher noticed that the adoption and utilization of reflective practices had gaps, especially in the use of reflective tools to aid pre-service teachers' reflective teaching preparations. From the recent reflective teaching practicum evaluation workshops, the researcher felt more inspired to look at the initiatives adopted by teacher education institutions to equip pre-service teachers with the learning and aptitudes to reflective teaching. The researcher also intended to investigate the existing pre-service teacher education curriculum implementation to key out the strengths and weaknesses for reflective teaching preparations.

Meanwhile, the researcher also observed that the focus for effective reflective teaching implementation was on the preparation, support and evaluations of pre-service teachers' reflective competences. This was established through the consultations with the teacher educators, pre-service teachers, cooperating teachers (mentors), and school principals. The consultations and workshops with the stakeholders indicated that reflective teaching implementation was not worth taking and the stakeholders did not understand what their functions should be. It is clearly emerging from the consultations and review workshops reports of teacher education institutions with the stakeholders that the problem was prevalent and deserves study.

In light of the above introduction and personal involvements, there was a need to investigate the current pre-service secondary school teacher training programme for best reflective teaching experiences. This study, then investigated pre-service teachers' experiences and perceptions of reflection and reflective teaching in order to find out what reflective teaching activities are put in place and how should the reflective teaching preparation be improved in the current secondary school teacher education curriculum in Ethiopia. It is expected that the findings of this research are used to improve the adoption and applications of reflective teaching practices in the existing pre-service secondary school teacher education programme in Ethiopia by identifying the key features of the proposed framework and approaches to reflective teaching implementations.

1.2 BACKGROUND TO THE RESEARCH

The goal of teacher training in Ethiopia is to provide teacher trainees an opportunity to become reflective practitioners, who are capable to examine, assess and act to improve their own scarcity and acquire further professional knowledge and skills (MoE, 2009). Thus, the provision of reflective teaching practices to the pre-service teachers in the teacher training programmes is critical (MoE, 2009; Zeichner, 1983). Many reflective educators view reflective practices as the brand of professional competence for teachers (Larrivee, 2006; Osterman & Kottkamp, 2004; Jay, 2003; Cole & Knowles, 2000; Schön, 1987).

The concept of a reflective teacher education framework in Ethiopia began in 2003 (MoE, 2003). The Ministry of Education examined the existing teacher education organization in Ethiopia through the Teacher Education System Overhaul (TESO) initiative (MoE, 2003; Ayele, 2010). As a consequence, the reflective teacher education curriculum framework was introduced in Colleges of Teacher Education and education Universities. The teacher education curriculum involved a collaborative effort that utilizes professional wisdoms of the stakeholders, like the Ministry of Education and Regional Bureaus, the schools and Institutes of Education, for reflective teacher preparation (MoE, 2003). From 2009, reflective practices for secondary school initial teacher education became more significant with the introduction of the Postgraduate Diploma in Teaching (PGDT). This type of teacher preparation is also termed as school-based teacher Education programme (MoE, 2009).

As teacher education programmes come under increased pressure of accountability, some assert the need for a consolidation of the goals and practice of reflection. Reflection is widely accepted competence to teacher training and growth. Expressions such as 'reflective teaching', 'inquiry-oriented teacher education', 'teachers as researchers', and 'reflective practitioners' have become quite prolific in discussions of classroom practices and teacher profession developments (Postholm, 2008; Darling-Hammond, 2006; Calderhead & Gates, 1993; Russell & Munby, 1990).

Reflective teaching is the process of learning to teach by gaining knowledge, accomplishments, and research patterns. It is currently a required competence in many teacher training programmes and it makes up a dominant teacher education paradigm (Zeichner, 1983). Reflective teaching in Ethiopia has been in existence in teacher education institutions since 2003; with the introduction of the PGDT in 2009. Reflective teaching practice was included in the curriculum framework for the secondary school pre-service teachers' preparation. In this regard, reflection is introduced in the teacher preparation programme to maximize teachers' reflective learning and professional growth in the Ethiopian context (MoE, 2003; 2009). The teacher education institutions have also included reflective practices in their pre-service secondary school teachers' preparations.

MoE (2003) explained that, in education degree courses in Ethiopia, subject content has been treated as a separate entity, and the practice of teaching and teaching methods have been treated in a theoretical way. This has produced teachers who, although well enough grounded in their individual subject knowledge, are not necessarily good at teaching in schools using active learning methods. Hence, the best way is to train teachers to afford them a tangible experience of schools and students at the very start of their course. It is believed that this approach can inform pre-service teachers the psychological and educational bases of teaching and learning in the context (MoE, 2003; 2009; 2016).

In the literature, it is documented that teacher reflections result in higher pedagogical reasoning, guide future decisions and actions, a keener sense of responsibility, empowered teacher identity, improved self-perceptual experience, problem-solving skills, and facilitates pre-service teachers to examine their practice in a systematic and thoughtful way (Chitpin, et al., 2008; Mezirow, 1990). Moreover, reflective teaching can help pre-service teachers develop positive habits of judgment that eventually enable higher level, cognitive, interpersonal, and pedagogic control (Francis & Cowman, 2009; Smith, 2005).

On the other hand, reflection requires practitioners to go beyond a focus on pieces of events to engage into a broader setting for examining their experiences (Osterman &

Kottkamp, 2004; Cole & Knowles, 2000; Larrivee, 2000). Thus, the reflections should be utilised to illustrate an immense group of experiences, running from sheer assessment about a sole side of a session to considering the ethical, social and political repercussion of teaching (Pollard, 2014; Sellars, 2014; Bolton, 2010; McIntosh, 2010).

Education officials in the USA embrace reflection as a demeanor and performance competency for beginning teachers entering the teaching profession (Etscheidt, et al., 2012). Nonetheless, it is identified that teachers faced the difficulty to familiarize themselves with the essential features of a reflective professional, using effectual methods to prop up reflection and putting into actions (Etscheidt, et al., 2012).

A literature study showed that reflection in teacher education programmes is employed without broad considerations of its quite varied nature (Cruickshank & Applegate, 1981; Killion & Todnem, 1991). As a result, teacher educator's focus on pre-service teachers' reflectivity lacked commonality. Some view reflection as a procedure for reaching goals and consequences of teaching (Cruickshank & Applegate, 1981; Killion & Todnem, 1991). Others consider reflection as a lifelong learning strategy (York-Barr, et al., 2006; Bright, 1996). This seems that reflective practices are viewed as complex pedagogical experiences and teachers need to consider the dimensions of teaching and become critical to the contexts (Kidd, et al., 2008).

A research study by McKenzie (2015) on trainee teachers' experience of reflection in the UK indicate that trainee teachers value reflection and keeping a journal useful, but finding time to recapture their experiences and critically reflect on it was a challenge. Likewise, (Seng, 2001) finds that reflection enhances teachers' effectiveness by bridging thinking and acting, as teachers examine their prior beliefs with theory and practice to reconstruct knowledge from the experience. In this regards, reflective journals provide a valuable chance for pre-service teachers to review and assess their experiences over time (Muller, 2003). Nevertheless, the literature shows that trainee teachers lack the competencies to develop reflective journals (Mueller, 2003). Bolton (2005) informs that reflection becomes more effective when future teachers are occupied with discussions.

In the Ethiopian context, the primary challenge facing the initial teacher education programmes is how to ensure pre-service teachers are geared up for reflective teaching (MoE, 2011; 2013; 2016). For instance, in a round table testimony on teacher education indicated that there was inadequate support for the pre-service teachers during the teaching practicum by the school teachers (MoE, 2011). Moreover, the same report pointed out that the pre-service teachers lacked time to critically look into their teaching practices and develop teaching rapport (MoE, 2011).

Similarly, MoE (2013) demonstrated that the reflective practices provide to the pre-service teachers during the coursework and teaching practices were aimed to apply the educational knowledge, basic curriculum and professional teaching principles, to complete the assignments, rather than to create a desire to learn and grow. The type of reflective practices the pre-service teachers engaged were also found limited (MoE, 2011; 2013). Hence, it is indicated that the emphasis should be aimed at improving the reflective practices and obtaining pre-service teachers' reflective skills enhanced to be capable of teaching in Ethiopian secondary schools (MoE, 2016).

On the other hand, the perpetual problem has been with the inability to effectively use reflective practices by teachers in their schoolrooms. This is due to lack of orientation and preparation for reflective teaching in the pre-service teacher preparation programme (Dereje, 2012). In teacher training programmes, these challenges need to be addressed if teachers are to become reflective teachers, who are able to improve their reflective teaching practices. A research study by Dereje (2012) on reflective practicum in Ethiopia also indicated that pre-service teachers experienced the incapability to read- and-write or builds a reflection of their fruits of practicum learning as a result of the nature of the limited natures of reflective tools. The study, furthermore, found that the reflective tools underutilization was highly structured, performance-oriented and underpinned by a pre-defined objective approach, and did not involve the pre-service teachers to think deeply, analyze, explore, discuss and document why and what-ought- to be done for better teaching and learning process. Also, it was learned that the major element that sustained the problem of the pre-service teachers' lack of ability to think over their teaching experience was due to lack of efficient methods of reflection.

From these reports, we can understand that the pre-service teacher preparation plans in Ethiopia lack to engage trainee teachers with adequate reflective practices, which could be due to the perceptions and practices related to reflective teaching. It is true that reflective teaching in Ethiopian pre-service teacher education programme is new and it is not well developed, therefore, it requires scientific endeavours to pull together insights into the practice and find ways to enhance its implementation (MoE, 2003). This gives rise to the need to look into how reflective practice is adopted and utilized in the current pre-service teacher preparation programme in Ethiopia to promote reflective teaching.

Over the years, different examples of initial reflective teacher education have been produced and carried out. The teacher education frameworks have been fine-tuned to fit the demands of different spots in different educational institutions. Teacher education models being used by the teacher education institutions identified in the literature are single loop and double loop learning model of reflective practices (Dewey, 1938; Mezirow, 1990); perpetual learning spiral model of reflection (Larrivee, 2006); experiential learning cycle (Kolb, 1984; Boud, 1985); structured mode of reflective cycle (Johns, 1995; Gibbs, 1988); critical model of reflective practices (Brookfield, 1998; Van Manen, 1977) and developmental model of reflective practices (Rolfe, Freshwater & Jasper, 2003).

These models are differentiated as far as goals, object targets, characteristics, and practical applications; in any case, numerous attributes overlap. For instance, the reflective models accentuate the areas of reflection on and for action including reflective communication (Hatton & Smith, 1995; Killon & Todnew, 1991; Schön, 1987; Schön, 1983; Carr & Kemmis, 1986; Mezirow, 1990; Dewey, 1933), attributes of reflective reasoning (Van Manen, 1977), knowledge construction procedures (Bloom, 1956; Anderson & Krathwohl, 2001), and generally speaking the formative and developmental levels of reflective reactions (LaBoskey, 1993; Zeichner & Liston, 1996; Ross, 2002; Larrivee, 2004) amid the expert development of pre-service teachers.

Regardless of the traditions of reflective practices in the teacher education programmes, the degree to which teacher education programme actualize these conventions in the pre-service teacher trainings should to be investigated. The

implication is that it is valuable in expanding our comprehension of the critical characteristics of the present Ethiopian pre-service secondary teacher education programme and enhancing it. It is additionally important to discover the activities used to prepare prospective teachers for reflective teaching in the current pre-service teacher education programme. Effective teacher education programmes are identified by giving pre-service teacher's chances to find out instructing through the contents and encounters for reflective teaching practices (Dewey, 1933).

To date, the findings on the effectiveness of pre-service teacher education programme on teacher readiness for reflective teaching in Ethiopia have been disputable and still there are numerous aspects in the pre-service teacher education programme which require study. In light of the above circumstance, this examination seeks to fill the gaps in the present pre-service teacher education programme for better reflective teaching in Ethiopia.

1.3 KEY CONCEPTS

For the purpose of this research, clarification of key terms is given.

1.3.1 Teacher education

Teacher Education (TE) is a programme for both pre-service and in-service teachers that is identified with the advancement of teacher capability and fitness that would empower and engage the student teacher to meet the necessities of the profession and face the difficulties in that. This implies that teacher education is the formal and non-formal exercises and encounters that assistance to qualify a trainee teacher to presume obligations of a member of the teaching profession or to release his responsibilities more successfully. Teacher education includes teaching abilities, sound academic and professional proficiencies (Good, 1973; UNESCO, 2005; Perraton, 2010).

Teacher Education alludes to the strategies, systems, and arrangement intended to prepare (prospective) teachers with the knowledge, attitudes, behaviours, and abilities they require to perform their tasks effectively in the classroom, school, and wider

community. In general, teacher education for the most part incorporates four elements: enhancing the general educational and instructional bases of the student teachers; increasing their insight and comprehension of the subjects they are to educate; pedagogy and understanding of students and learning; and the development of practical skills and competences. The harmony between these four components fluctuates widely (Perraton, 2010).

1.3.2 Teacher education institutions

Teacher Education Institutions (TEIs) are educational organizations thought to have the potential to bring changes within educational systems that will shape the knowledge and skills of future generations. Teacher education institutions serve as key change agents in transforming education and society, so such a future is possible (Perraton, 2010). Teacher education institutions, in this study, are those which meet the standards of the curriculum framework for preparation of secondary teacher education in Ethiopia (MoE, 2009).

1.3.3 Reflective practice

Reflective Practice is characterized as the capacity to think about one's activities in order to take part in a procedure of persistent learning. It is a vital instrument in the practice-based professional learning contexts where individuals learn to shape their own professional experiences, instead of from formal learning or information exchange. It might be the most vital hotspot for personal expertise development and enhancement (Schön, 1983).

The idea of reflective practice proposes that abilities cannot be picked up in segregation from setting. Reflective practice centres on the practitioner interpretation of occasions and surrounding of these into reasonable activity. Reflective practice in this thought is the possibility that pre-service teachers can be set up for expert circumstances through the application of teacher education pedagogies (MoE, 2009).

1.3.4 Reflective teaching

The term reflective teaching and reflection are utilized to depict a huge swath of practices. Reflection can have an assorted of implications as it is converted into teacher development. Jacobs, et al. (2011) view reflective teaching as a ceaseless cycle of efficient self- assessment by a teacher of his/her own teaching through open discourse with colleagues or written analysis. This entails the use of instructional methods, for example, clinical experience (like practicum and micro-teaching); the utilization of performance appraisals and portfolio; analysis of teaching and learning; case methods; teacher inquiry; teaching account; and action research (MoE, 2009).

1.3.5 Cooperating teacher

A qualified and experienced teacher (mentor) assigned by the school principal to guide the pre-service teacher amid the reflective teaching practicum (Atputhasamy, 2005). According to MoE (2009), cooperating teachers are experts in the schools who are essentially critical to the pre-service teacher's school-based practicum programme. As a result, they provide the student teachers professional guidance during the school attachment to facilitate pre-service teachers' initial professional growth and development.

1.3.6 Teacher educators

Those professionals who take part in the newly designed secondary school teacher education programme are called teacher educators (MoE, 2009). Moreover, teacher educators are instructors from the teacher training institutions who are assigned to educate and supervise pre-service teachers during the reflective teaching practice (Pollard, 2005).

1.3.7 Pre-service teachers

Teacher trainees are those who are selected and enrolled in a teacher training programme preparing, get ready for the teaching profession (Good & Whang, 2002).

For this study, pre-service teachers (PGDT) are those who meet the admission criteria set by the curriculum framework (MoE, 2009).

1.4 PROBLEM STATEMENT AND RESEARCH QUESTIONS

In Ethiopia, the initial teacher training has been disparaged for the weakness to deliver teachers who are appropriately prepared in instructional methods and contents as well as the capacity to professionally gain from their encounters about teaching. It is documented that the change from scholastic speculations in universities to classroom practice has regularly been very sharp, stating that pre-service teachers are not appropriately engaged with school experiences and as needed chances to get the hang of teaching (MoE, 1994; 2002; 2003; Dereje, 2012).

The undergraduate teacher education programmes have also been condemned for having constrained and inconsequential teaching practices for building the capacity of pre-service teachers to learn from teaching programmes by being reflective practitioners. A portion of the reasons brought up for this discernment is programmes focusing on acquiring formal knowledge of the subject matter and the utilization of traditional instructional approaches excessively (Kagan, 1992). The theories being overemphasized and, in this manner, the practical realities of classrooms not being tended to (Koko, et al., 2006); and the structure of the course and the gap between theory and practice is wide (Imig & Imig, 2007; Cochran-Smith, 2005).

In light of this, the Ethiopian government aspired to provide quality teachers to school students. The new secondary school teacher education curriculum framework demonstrated that the motivations behind measures to be taken will be to give time for pre-service teachers for reflective teaching both in and out of classroom instructions so as to empower them to end up reflective teachers (MoE, 2009). Notwithstanding, it is comprehended that the existing pre-service secondary school teacher education programme required more deliberate strategies for gathering data about the impacts of the curriculum in getting ready pre-service teachers for reflective teaching, as there are no published investigations of the adequacy of the programme in preparing teachers for reflective teaching in the secondary schools in Ethiopia.

In association with this, observations and reports from different gatherings showed that despite the fact that government is working hard in teacher education, implementation issues are yet seen within the teacher training programme (MoE, 2013). Subsequently, pre-service teachers appear to be unprepared for reflective teaching. Furthermore, pre-service teachers' engagement with reflective tools is constrained.

MoE (2013) likewise indicates that the support and feedback provisions for the pre-service teachers for reflective teaching are lacking. The reflective teaching practices in teacher education institutions in Ethiopia had problems of appropriateness and adequacy, both in the school experiences and university teaching arrangements (MoE, 2013). Yet, the curriculum framework for the pre-service secondary teacher education states that pre-service teachers shall be presented to reflective practices in their teaching orientations and preparations (MoE, 2009).

All these are ambitions what the government set out to achieve through the introduction of the reflective teacher training programme, the PGDT, which was not being legitimately actualized. Be that as it may, the issue needs data on the responses of the key partners; university educators, pre-service teachers, and cooperating teachers about the reflective teaching practices in the Ethiopian Teacher Education Universities.

Recent governmental inquiries have recommended a review of all areas of the current pre-service teacher education programme, including the teaching and learning procedures of the secondary teacher education development programme (MoE, 2013; 2016). Given the noteworthiness of reflective teaching, it is important that the reflective practices being utilized and implemented by Ethiopian Teacher Education Institutions are examined and enhanced.

For this study, the main research question is:

How can Ethiopian secondary school pre-service teachers' use of reflective teaching practices be improved?

The subsequent sub-questions were impelled from the main research question:

- What theories can be used to explain the adoption and implementation of reflective teaching in teacher education programmes?
- What perceptions do pre-service teachers have about the current teacher education model in preparing for reflective teaching in Ethiopia?
- To what extent are secondary school pre-service teachers in teacher education institutions inclined to use reflective teaching practices?
- What are the factors that enable or hinder the adoption and implementation of reflective teaching in the current pre-service secondary school teacher education programme?
- What changes should be made to the pre-service secondary school teacher education in Ethiopia to better prepare reflective teachers?

1.5 AIM AND OBJECTIVES

This research described the impression of stakeholders occupied with the secondary teacher education programme, the degree to which changes have impacted on the viability of the reflective teaching, the university staff, cooperating teachers and pre-service teachers, and ways in which the reflective teacher education programme might be additionally moved forward. As this examination centres around the reflective teaching practices in teacher preparing faculty, it deals with the concepts and terms of reflective teaching and models of successful reflective teaching practices in the initial teacher education programmes; and their underlying suppositions and theories that can be used to elucidate how factors influence these practices.

The aim of this research was to examine and enhance secondary school's pre-service teachers' use of reflective teaching practices in the present teacher education programme in Ethiopia.

Flowing from this intend, the study developed the following objectives:

- To find out theories that can be used to explicate the adoption and implementation of reflective teaching in teacher education programmes.

- To express the pre-service teachers' perceptions about the current teacher education model in preparing for reflective teaching in Ethiopia.
- To determine the extent of secondary school pre-service teachers in teacher education institutions inclined to use reflective teaching practices.
- To identify the factors that enable or hinder the adoption and implementation of reflective teaching practice in the current pre-service secondary school teacher education programme.
- To point out the changes the initial teacher education programme should make to better prepare reflective teachers.

1.6 RESEARCH METHODOLOGY

This section discusses the methodological suppositions whereupon which this study was based; clarifies how and why particular research methods were selected, developed and implemented; and, gives a depiction of the data analysis. Methodology is portrayed as a state of mind about and contemplating social reality (Strauss & Corbin, 1998). It is a systematic means of researching educational and instructional phenomena (Morrison, 2007). However, the choice of research methodology ought to be dependent upon the idea of the enquiry and the sort of data looked for (Bell, 2005). In this manner, a methodology should manage the determination and utilization of a reasonable research design and guide the selection and utilization of appropriate techniques (Blessing & Chakrabarti, 2009).

The following sections, present the overview of research design and the research methods, including the procedures, instruments and procedures used together and analyse data. Also, the trustworthiness and ethical considerations with respect to the participants in this research are discussed.

1.6.1 Research design

Research design is described as the logical arrangement that interfaces the empirical data to the investigation's underlying questions and, ultimately, to its conclusions (Yin,

2002:20). Further, a research design is the fundamental plan for a research study, and incorporates the paradigm, approach and type. The accompanying section briefly renders and explains the research view, the approach and the type of research.

1.6.1.1 Research paradigm

A paradigm is a way of looking at the world. It is made out of certain philosophical suppositions that guide and direct reasoning and action (Guba & Lincoln, 2005). For this investigation, pragmatism was regarded the most fitting research paradigm. Pragmatism concerns thinking that choosing between one position and the other is fairly farfetched practically speaking; and it is contended that the most essential determinant of which position to adopt is the research questions (Creswell & Plano Clark, 2011; Saunders, et al., 2009). In addition, pragmatism is one of the paradigms that give an underlying philosophical system to mixed methods research (Tashakkori & Teddlie, 2003). Accordingly, for the mixed methods, researcher, pragmatism opens the way to various methods, distinctive worldviews, and diverse suspicions, and also different types of data gathering and analysis in the mixed methods study (Creswell, 2002). The details of the research paradigm of the investigation are explained in Chapter 4.

1.6.1.2 Research approach

Research approaches are plans and procedures for research that span the steps from broad presumptions to define methods of data collection, analysis, and interpretation (Creswell, 2007:3). Approaches to research fall inside two noteworthy conventions which can be recognized from one perspective, by varying perspectives about the role and placement of theory, and on the other, by the relationship to, and sequence of, events and activities which are included (Coleman & Briggs, 2002:105).

The knowledge claims, the strategies, and the method all adds to the research approach that has a tendency to be more quantitative, qualitative or blended (Creswell, 2002:13). Each approach uses distinctive techniques of data collection: quantitative research is concerned with gathering facts and raw numbers for the end goal of statistical analysis, while qualitative research looks to gain a comprehension and

understanding into people's experiences or perceptions (Tashakkori & Teddl, 2003:351-383; Creswell & Plano Clark, 2011).

In order to address the research questions and accomplish the objectives, this study formulated to utilize a mixed method. Moreover, the rationale behind the decision of this approach was the research questions, where the utilization of either quantitative or qualitative approaches did not completely address the research issue, whilst a combination of approaches did (Creswell & Plano Clark, 2011).

Besides, mixed methods research approach is one in which both quantitative and qualitative methods are utilized to look into inquiries in a single study to earn rich data from the participants within the cultural context (Merten, 2007:217; Yin, 2002; Denscombe, 2003; Creswell, 2003). The complementarity of data from quantitative and qualitative methods has been also appreciated in educational research, as overlapping methods can provide complementary information while reducing the likelihood of blunders (Creswell, 2003; Johnston & Christensen, 2000:28).

In this study, the mixed research approach was also chosen in light of the fact that this research comprised research questions that are both supported by the interpretivist and the positivist assumptions. In particular, the researcher utilized the convergent parallel mixed method to acquire information from the research population, to be specific teacher educators, school teachers and pre-service teachers simultaneously both the quantitative and qualitative information (Creswell & Plano Clark, 2011). The details of the research approach of this research study are explained in Chapter 4.

1.6.1.3 Research strategy

To answer the research questions and achieve the objectives, a case study strategy was employed. A case study is characterized as a procedure that looks a bounded system or a case involving multiple sources of information rich in the setting (McMillan & Schumacher, 2010; Creswell, 2009). A case study took into consideration the collection of in depth data from the key stakeholders in a complete way (Creswell, 2003; Bell, 2000).

A case study is also suitable when researchers need to characterize and examine topics comprehensively to cover contextual conditions and not simply the phenomenon of study and to use and rely on multiple sources of evidence (Yin, 2002). Additionally, the significant and remarkable qualities of a case study are its capability to deal with a full variety of evidences- reports, documents, artefacts, interviews, meetings, perceptions, and observations (Yin, 2002; McMillan & Schumacher, 2010).

Information-rich cases are those which can uncover a lot and study data-rich cases yields insights and in-depth understanding as opposed to exact speculation (Patton, 2002). Bits of knowledge gathered from case investigations can directly impact policy, practice, and future research (Patton, 2002). The intention was to make the description point by point enough to figure out which factor(s) should be routed to improve errand illumination as successfully and effectively as could be reasonably be expected (Blessing & Chakrabati, 2009).

An educational case study is an empirical enquiry within a localized boundary of space and time, concerning fascinating aspects of educational and instructional activity, programme or framework its normal setting (Bassegy, 2001). This case study examines a single cohort of pre-service teachers undertaking reflective teaching practices in a typical teacher education institution. This definition provided the guidelines to conduct this research.

In this study, the descriptive case type was used to present an entire depiction of the phenomenon within its situation, as descriptive case study was used to build up a document that completely lights up the intricacies of an ordeal (Yin, 2012). These are often used to present answers to a series of questions based on theoretical constructs and used to portray an intervention or phenomenon and the real setting in which it happened (Yin, 2003). These descriptions are from the perspective of the stakeholders and utilize the stakeholders' very own words to describe their encounters (Patton, 2002; Sandelowski, 2000). The details of the research strategy are discussed in Chapter 4.

1.6.2 Research methods

Data gathering is the process of restrained inquiry through the gathering and analysis of empirical data (Best & Khan, 1993). Knowledge of its strategies is utilized in the procedure of securing important data from the participants of the study. This section gives the details of the selection of participants and sampling methods; clarifies how and why particular research techniques are chosen, developed and implemented; and provides a portrayal of how the data analysis will be done.

1.6.2.1 Selection of participants

Sampling involves selecting units of examination in a mode that boosts the researcher's capability to replay his/her investigation queries (Tashakkori & Teddlie, 2003). For this investigation, both the probability and non-probability sampling methods were used to draw potential participants for the study. Probability sampling is frequently alluded to as a representative sampling and takes into account the numerical deductions about the people to be drawn from responses derived from the sample. On the other hand, a non-likelihood sample is often more fitting and less hard to put right despite the fact that it is far-fetched and it will be thoroughly illustrative of the population as a whole (Creswell, 2003; Krejcie & Morgan, 1970).

The sources of data comprised of a typical teacher education institution, pre-service secondary school teachers, teacher educators, who have the responsibility for giving the theoretical and practical inputs for reflective teaching, and cooperating teachers (school teachers or mentors assigned to help pre-service teachers during the reflective teaching practice), who have the responsibility for offering support to the pre-service teachers during the reflective practices. Hence, 40 teacher educators, who are responsible to prepare pre-service teachers for reflective teaching practice, 147 pre-service teachers, training teachers enrolled in the secondary teacher education programme and 37 cooperating teachers (mentors) who are qualified teachers in the schools in which pre-service teachers are set under the consideration of them were the target populace of this investigation.

As a result, the group of respondents for the questionnaire were a cohort of secondary school pre-service teachers enlisted in a typical teacher education institution. This clump was expected to practice reflective teaching which was considered as a central component in the existing pre-service teacher education curriculum framework. On the other hand, out of the 40 teacher educators, eight of them were selected as participants in individual interviews on the basis of their granted indulgent and familiarity with the reflective teaching practices and utilized for qualitative data. Out of the potential 37 cooperating teachers, 12 of them were purposefully selected for participation in two focus group interviews by considering their exposures and experiences for reflective teaching practices. Finally, 12 pre-service teachers were also chosen for two focus group interviews being pre-service teachers' representatives. The details of the selection procedures are discussed in Chapter 4.

1.6.2.2 Data collection

In this study, questionnaires, interviews, focus group interviews, and document reviews were utilized to gain important data from the pre-service teachers, teacher educators, cooperating teachers, and the teacher education curriculum framework.

(i) Questionnaires

To assess the reflective teaching implementations in the secondary school pre-service teacher education programme of this investigation, pre-service teachers' questionnaire was employed. The pre-service teachers' questionnaire focused on the pre-service teachers' perceptions and experiences of the reflective teaching practices, including tasks, tools, and support embraced in the schools and at the university for reflective teaching. The questionnaire consisted of a series of statements to which pre-service teachers were asked to express their assentions and disagreements on the rating scale.

The questionnaire was divided into sections that provided a grouping of questions and initial themes for data analysis- teacher educators' role for reflective teaching introduction and preparation, cooperating teachers' role, experiences with reflective

tools, perceptions of reflections, reflective teaching abilities, barriers, and facilitators for reflective teaching practices.

The questionnaire was tested with a sample of 15 respondents, which did not partake in the actual research. This guaranteed the questionnaire provided the information that is required, as well as identifying any ambiguous or poorly constructed questions or any other difficulties related to the survey. Besides, research staffs in the Institute of Education and Behavioural Sciences reviewed the questionnaire to ensure the items are accurate, unambiguous and can be fully understood by those involved in the study. Finally, 127 pre-service teachers completed the final questionnaire.

(ii) Individual interviews

Structured interviews, semi-structured interviews, and in-depth interviews are altogether methods used in social science research (Yin, 2004). The interview is viewed as standout amongst the most important sources of case study data (Yin, 2002). In this study, semi-structured interviews were utilized. Semi-structured interviews have been used extensively for data collection across all disciplines of the social sciences and are fundamentally the most widely recognized type of data gathering in qualitative studies in education (Punch, 2005; Creswell, 2012).

A semi-structured interview has the benefit of enabling interviewers to probe, acquire more in-depth data, adding profundity to the investigation, and clearing up misunderstandings. Data gathering is more manageable during the interview as the researcher asks some questions that are closed and some that are open ended (Creswell, 2012; Punch, 2005). As a result, eight teacher educators were asked to catch how the current teacher training had set pre-service teachers for reflective teaching. In this research study, the interview comprised of various recognized points.

(iii) Focus group interviews

A focus group is a group interview led by the researcher who is conducting the instrument to collect specific data on a predefined theme (Listosseliti, 2003). Focus

groups are vital for getting a sign of how widespread an idea, worth, or deeds is likely to be in a populace, and for understanding how profound emotions keep running about products, issues, or public figures (Fontana, 1995). Besides, focus groups take into account for an investigation of ideas through mutually enlightening conversations and are often used as a supplement to other data collection methods (Andrews, 2003).

In this study, focus group interviews were utilized to enable the cooperating teachers to present and offer their experiences and to feature pre-service teachers' views about the reflective teaching practices in the schools. As a result, two focus group interviews for 12 cooperating teachers (mentors) by virtue of being tutors for the pre-service teachers who had been assigned in schools for their reflective teaching know-how and two focus group interviews for 12 pre-service teachers, thus, four groups in total were interviewed.

(iv) Document reviews

Documents present rich sources of materials for investigation. They can function both as the main sources for the researcher's conclusions to enhance data from different sources, and in addition checking, corroborating, and augmenting the validity of data in which it adds to data triangulations (Creswell, 2002).

The document analyses serve to enrich and enhance the outcomes obtained through questionnaires, interviews, and focus group interviews, and triangulate results with study discoveries (Patton, 2002). In this study, relevant documents were obtained and analyzed. In this way, the documents were used to provide insight and background information about the pre-service secondary school teacher education and the reflective teaching practices. The documents incorporated teacher education curriculum framework that helped the researcher describe the nature and levels of reflective teaching practices. Furthermore, the document reviews were conducted to find out about the curriculum intentions and the contents of the reflective module. The details of the research methods employed in this study are discussed in Chapter 4.

1.6.2.3 Data analysis

The data analysis for this research was done with the perusing of accessible documents that can provide insights and overviews in regards to the main topics of the reflective teaching: meaning and nature of reflection, meaning of reflective teaching, teaching and reflection, becoming a reflective teacher, benefits, and issues of reflective teaching and opportunities for reflection in pre-service teacher education. Research instruments intended for use in this investigation created a mix of quantitative and qualitative data. In light of these multiple data sources, the findings are triangulated to secure the trustworthiness of the data (Patton, 2002; McMillan & Schumacher, 2010). This section described how data derived from the questionnaire, interviews, focus group interviews, and document reviews were coded and categorized to help facilitate analysis of the mixed research method.

In mixed methods, data analyses involve quantitative and qualitative data analyses that are combined, connected, or integrated into research studies (Taddlie & Tashakkori, 2009:263). There are numerous classifications of data analysis strategies. These incorporate parallel, successive, discussion, and multilevel mixed data analysis (Taddlie & Tashakkori, 2009). The parallel data analysis technique was decided for this investigation as it helped the researcher collect both quantitative and qualitative data concurrently and afterwards contrasted the two databases to determine whether there was a convergence, differences, or some blend. Some authors refer to this technique as confirmation, disconfirmation, cross-validation, or corroboration (Greene, Caracelli, & Graham, 1989). The details of the methods of analysis are discussed in Chapter 4.

(i) Quantitative data analysis

Evidence derived from the structured pre-service teachers' questionnaire was analyzed using descriptive statistics. The descriptive statistics provided summaries of the participant cohort (n=127), about their perceptions concerning the reflective teaching preparation. The utilization of descriptive statistics enabled large amounts of data to be shown clearly using tables and charts (Robson, 2002). The rate of recurrence of

the event in totally exclusive categorical sets of preferences strongly agree – agree – undecided – disagree- strongly disagree were counted and the level of the population who chose each response was calculated for future analysis. The researcher had checked that all the quantitative data were extricated from the questionnaire, and were precisely recorded, computed and reported.

(ii) Qualitative data analysis

The researcher employed the major strides in the qualitative data analysis distinguished by the qualitative researchers (Creswell, 2002; Marshall & Rosman, 2016). Narrative analysis of the qualitative data was interpreted to support the quantitative results and presented in light of the research questions (Denscombe, 2003; Creswell, 2003; Le Compte, 2000; Marshall & Rosman, 2016).

The verbatim records of the individual and group interviews were deciphered, different groups relating to the research topic framed and data from interviews, focus groups, and content reviews were analysed as indicated by the research outcomes. The aim of the qualitative data analysis was to yield vital and appropriate responses to the investigation questions. Essences were then identified with teacher education activities embraced by teacher training institutes in getting ready pre-service teachers for reflective teaching in secondary schools in Ethiopia.

1.7 VALIDITY OF QUANTITATIVE RESEARCH RESULTS

In the quantitative section of this research, objectivity, reliability, and validity of the instrument and generalizability of the findings were considered. Validity refers to how much the investigation and research tools measure what it is proposed to be measured. Whereas reliability describes the level of consistency with which a research device estimates what it is supposed to measure. Hence the findings are applicable or repeatable (McMillan & Schumacher, 2010; Tashakkori & Teddlie, 2010).

In this research, the questionnaire that deliberates the pre-service teachers' perceptions of their reflective teaching involvements was pilot tested and redefined.

The details of this issue are explained in Chapter 4. Moreover, in order to qualify that the research study is credible, emphasis was given to the matter of trustworthiness for the qualitative section of this investigation.

1.8 MEASURES FOR TRUSTWORTHINESS OF THE QUALITATIVE RESULTS

Trustworthiness is seen as the extent of certainty that the researcher has that their qualitative data and findings are credible, transferable and dependable (Gasson, 2004; Creswell & Plano Clark, 2011; Roller & Lavrakas, 2015). The trustworthiness of an investigation provides details regarding qualitative research depend on the core of the issues considered as validity and reliability (Gasson, 2004; Roller & Lavrakas, 2015). The issues of trustworthiness can be satisfied through the provision of extracting extracts of interview data, including the inquiries that inspired the data (Silverman, 2006). In this research, the qualitative results were made valid by maximizing the dependability of the research (Creswell & Plano Clark, 2011; Roller & Lavrakas, 2015).

Efforts were made to fairly treat all the research errands that were done as well as considering all the different ontological perspectives of the research participants. Moreover, the data were perused over and over with the end goal to decide whether the constructs, justifications, sort of ideas and elucidations that were produced were indisputable and actually expressing the true scenery of the marvel that was being contemplated. The way toward achieving trustworthiness of qualitative research can be ensured by verifying credibility, transferability, dependability, conformability, adequacy of data, and appropriateness of data (Cannon & Boswell, 2011).

1.8.1 Credibility

Credibility, deals with the question, "How congruent is the discoveries with the real world?" Roller and Lavrakas (2015) contended that guaranteeing credibility is one of the most critical factors in establishing trustworthiness. As indicated by Cannon and Boswell (2011) the real constituent parts of credibility are use of mixed methods approach; peer debriefing; negative case analysis; and member checks. In this examination, credibility was tended to through utilizing the different data collection methods, specifically

individual interviews, focus group interviews and document reviews. Triangulation was accomplished through the distinctive tools, participants and sites. By employing diverse data collecting techniques, the point was to compensate for the individual restrictions, and to take advantage of their particular qualities. The details of this issue are clarified in Chapter 4.

1.8.2 Transferability

The findings of a qualitative study are peculiar to specific conditions and individuals; it is difficult to show that the findings and conclusions are relevant to other circumstances and populations. Roller and Lavrakas (2015) noticed that numerous qualitative inquirers trust that, in practice, practically speaking generalizability is never conceivable as all observations are characterized by the particular settings in which they occur.

Transferability of the study is completed by giving adequate pictures to persons who read all about the research backgrounds, procedures, partakers and researcher-contributor connections. In this investigation the requirements for transferability was dealt by way of providing nitty gritty portrayals of the major elements and findings. That means the researcher was confident that the ultimate research end results could be utilized to other comparative institutional settings in Ethiopia and beyond. The details of this issue are explained in Chapter 4.

1.8.3 Dependability

According to Cannon and Boswell (2011), in addressing the issue of reliability of qualitative research, the positivist employs techniques to show that, if the work were rehashed, in a similar setting, with the same techniques, and with the same participants, similar results would be obtained. In order to address the dependability issue more straightforwardly, the processes within the study ought to be accounted for in detail, thereby enabling a future researcher to repeat the work, if not necessary to gain the same results. To achieve dependability, the researcher used strategies that have common characteristics to bring together facts for this study. The details of this issue are explained in Chapter 4.

1.8.4 Conformability

The concept of conformability in the qualitative investigation is a tantamount concern for objectivity. In this way, steps must be taken to help ensure beyond what many would consider possible that the findings are the consequence of the experiences and thoughts of the informants, as opposed to the attributes and inclinations of the researcher. The role of triangulation in advancing such confirmability should again be underscored, in this context to reduce the effect of investigator preconception. Cannon and Boswell (2011) consider that a key criterion for conformability is the extent to which the researcher concedes his or her own predispositions. To this end, the convictions underpinning decisions made and methods adopted should be acknowledged within the research report, the reasons for favouring one approach when others could have been taken explained and shortcomings in the techniques actually employed admitted.

Furthermore, conformability presents a review trail to assess whether findings come into sight from the data, e.g. crude data; processed and analysed data; codes, themes and patterns exhibited in the final report that reflect data reconstruction and synthesis; notes on the procedures used to plan the study; personal justification of the motivations behind the investigation; discloses how inquire instruments were structured, guided and additionally created to accumulate data. In order to verify conformability, one can undoubtedly check the footpath of the original sources of this researcher's participants' responses. The details of the quality frameworks of the mixed methods research data are discussed in Chapter 4.

1.9 ETHICAL CONSIDERATIONS

Ethics are the moral standards by which we conduct. Research ethics are the moral rules that govern research action, and they are the after-effect of applying these broader principles to look into (Allan & Love, 2010).

Prior to conducting this investigation, the researcher avoided potential risk to ensure the confidentiality and secure the obscurity of individual participants.

The ethical position adopted for this study is emphatically informed by Bassey (2001) who advocates regard for democracy, respect for truth, and respect for people. When collecting data, I ensure that the interviewee appreciates what the research is about, its purposes and that his or her answers would be dealt with confidentially (Bryman, 2001). Voluntary consent is anchored before the interview and each exertion is made to shield the anonymity of the participants and ensure that no unnecessary harm is caused to the participants during the data collection process.

In general, prior to conducting this study, the researcher takes precautions to ensure the privacy and protect the anonymity of individual participants.

The accompanying measures are additionally taken to guarantee that ethical guidelines are observed.

1. Permission was obtained from the University of South Africa (UNISA), College of Education Research Ethics Review Committee (CEDU REC) to conduct the study.
2. Permission was acquired from the Institute of Education and Behavioural Sciences of Dilla University to conduct the research at the Institute.
3. The teacher educators, cooperating teachers, and pre-service teachers were informed of the purpose and confidentiality of the research and assent, both written and signed and oral consents, are obtained from the participants.
4. The participants and partaking organizations were not recognized by name.
5. The data are kept in a secure place.

In the course of this research, particular regard and obedience to inquire moral codes were observed. The participants were teacher educators, cooperating teachers and pre-service teachers.

1.10 CHAPTERS DIVISION

This thesis is divided into six chapters.

Chapter 1 offers an orientation of the study. It entails the introduction, background to the research, key concepts, the statement of the problem, aim and objectives, research methodology, division of the chapters and summary.

Chapter 2 provides an outline of the contextual framework. It focuses on the key educational policies and practices on reflective teaching within the existing secondary school pre-service teacher education curriculum framework. Furthermore, it provides the situational analysis of the context so as to identify the practical and theoretical challenges and be able to suggest practical solutions for better reflective teaching practices.

Chapter 3 reviews the conceptual and theoretical underpinnings for this study. It focuses on discussing the concepts of reflection and reflective teaching in teacher education. Furthermore, the chapter highlights the key opportunities and challenges of reflective teaching as experienced in practice. The framework serves as a guide and an appraisal tool.

Chapter 4 presents a detailed account of the research methodology. Research design deals with the research paradigm, approach and research type. The research methods include procedures, tools and techniques to gather and analyse data. Trustworthiness and ethical considerations regarding the participation of human beings in the study is discussed.

Chapter 5 gives the data analysis and elucidations of the empirical research data. This comprises detailed discussions on the findings of the data collected. It includes comparisons of findings with the literature.

Chapter 6 provides the summary of the study, draws conclusions on the basis of the analysed and interpreted data, provides recommendations, and identifies areas for future research, limitations and final concluding remarks.

1.11 CLOSING REMARKS

This research provided the orientation of the study. As part of the introduction, it discussed the educational and pedagogical foundations of the investigation. The problem statement and sub problems contained by this study were described along with the aims and objectives. Chapter one additionally discussed the research procedure which incorporated an explanation of the research design, paradigm, strategy and data gathering and analysis techniques to be utilized as well as ethical contemplations to be mulled over amid the research process. The chapter explicitly talks about why reflective teaching is important and should be studied to enhance the implementation of the pre-service teacher education curriculum framework by TEIs.

The next chapter focuses on the contextual framework of the study.

CHAPTER TWO

CONTEXTUAL FRAMEWORK

2.1 INTRODUCTION

This research investigates how reflective teaching is executed in public TEIs working in a new pre-service teacher education curriculum framework in Ethiopia. Chapter 1 presented the research by articulating the foundation and reasons for the investigation. Chapter 2 discusses the contextual framework of public teacher education institutions in which reflective teacher education curriculum is executed. The chapter explicitly takes a gander at the setting of TEIs internationally and in Ethiopia by recognizing and talking about the contextual systems utilized in chosen teacher education programmes over the globe. Amid the discussion and as a major aspect of demonstrating why numerous teacher education programmes embraced reflective teaching systems to the tasks of TEIs, this chapter first discusses the improvement and development of TEIs in general and in Ethiopia specifically, considering that the reflective teacher curriculum frameworks that was instituted in numerous teacher education institutions all around, was the quest for quality teachers especially for effective utilization of reflective teaching in the TEIs.

The contextual framework identifies the essential characteristics of teacher education, and the provision of reflective teaching in a particular area. Specifically, educational policy and practice with regards to the context of reflective teaching is examined within this section. For the motivations of this framework, the context alludes to pre-service teacher education curriculum in Ethiopia. Reflective teaching is a worldwide instructional way to deal with teacher preparation. Yet, this research focuses on the pre-service teacher education training usage in the Ethiopian context. In addition, the contextual framework for this study outlines the typical teacher education institutional context in the Ethiopian context, and utilizations of reflective teaching practices in the curriculum, explicitly as to how this context relates to reflective teaching capabilities in classroom implementation, the working uses of reflective practices, and how reflective teaching is connected to teacher education. The execution and combination of reflective teaching as an educational step forward is reviewed.

2.2 TRAINING OF SECONDARY SCHOOL PRE-SERVICE TEACHERS IN ETHIOPIA

The inability of current instructional practices to prepare pre-service teachers to be fruitful in the reflective teaching in Ethiopian secondary schools has become a matter of concern that should be tended to (MoE, 2003; MoE, 2009). In this regard, researchers set out a schema for the future which suggests that of noteworthy alterations are required in the pre-service teacher education programmes to choose and prepare a new generation of teachers equipped with the required knowledge, competences and qualities to encourage the expanded nature of the students (UNESCO, 1996; Cullen, 2012).

One path is for teacher preparing institutions to incorporate reflective frameworks in their curriculum; however, there are a few systems that guide them. For examination, constructivist way to teacher education which highlights the roles of reflective activities in teacher training has been appeared to positively affect pre-service teachers' impressions of their own teaching skills by boosting their confidences and be able to utilize critical teaching practice inside schools (Darling-Hammond, 2000). The other path is the execution of proper strategies in regards to teacher training will settle the teacher supply issue and improve the quality of the teachers being set up for the schools, in this manner, prompting desired school outcomes, particularly student's learning (Cochran-Smith, 2005).

As a teacher education approach, a new pre-service secondary school teacher training programme was introduced in the Ethiopian education system (MoE, 2009). Cognizant of the above problems and considering related changes in the structure of higher education, it is trusted that transforming the structure and content of secondary teacher education programme is in order. To this end, a national team was set up under the support of the Ministry of Education. The taskforce has endeavoured to address the requirements of the country through analysis of policy, strategy, and programme archives, recognize the issues in teacher education programmes through discussions with teacher educators of various universities and reviewing empirical studies conducted

on Ethiopian teacher education and benchmark best practices through literature review and educational visits to some European and African countries (MoE, 2009).

As a result, a number of lessons were learnt in the training of pre-service teacher education programme in globe. Firstly, there are elective models of pre-service teacher education programmes utilized simultaneously globally. As a result, teachers get preparation in various modalities depending on the level of education, work experience and level of tutoring. While secondary school pre-service teacher training is conveyed for the most part in a postgraduate certificate form in many countries, despite they have lively incorporated, distance, and on the job programmes, paving diverse routes to the teaching profession. It was believed that assorted variety in the route to the teaching profession ought to characterize Ethiopian secondary teacher education.

Another issue that needed genuine consideration for effective reflective teaching is keeping reasonable progression and coherence among teacher education programmes' orientations, standards, course determination and organization, conveyance, and assessment schemes. In view of the thought of curriculum alignment, teacher education training must ensure that they have provided the experiences that accord with their orientations and lead to the achievement of standards. This pre-service teacher training has made this issue a top priority and intends to build a teacher education training that depends on sober mindedness and reflective practitioner orientations. Change in Ethiopian school necessitates graduates that challenge the current scenario through reflection and changing the existing culture could be conceivable by involving the teachers in self-study and reflective practice. In spite of the fact that apprenticeship/partnerships could be valuable, it must be more about introducing new practices in collaboration with teachers as opposed to about modelling and impersonation.

Furthermore, the pre-service teacher training in locality has also revealed that pedagogical content knowledge development become a major focus of teacher education curriculum framework. Additionally, educational and psychological issues ought to be treated in light of the subjects that teachers will teach. Over this, professional license requirements, accreditations, and continuous improvement are part of the teacher education system.

This examination is analysed on a typical institutional level. Because the investigation is focused on proposing an instructional framework for executing reflective teaching practices in teacher education institutions in Ethiopia, but also valid for other institutions.

2.3 THE TYPICAL INSTITUTIONAL CONTEXT

When investigating and translating research findings that lead to highlights and parameters that may prompt to the formation of a collective reflective teaching framework, this investigation considers different viewpoint concerning reflective teaching practice execution. Significant factors to be taken into account within this research incorporate the portion of time given to the pre-service teachers within the reflective teaching practices, the reasons for reflective teaching, the decision of undertaking reflective teaching, the preparation for reflective teaching, the connections explicit to prior learning, the distributions of reflective teaching tasks within the courses, and the inspiration of reflective teaching fixing to appraisal. By adjusting these factors into explicit set of instructions showed inside the reflective teaching implementation framework, pre-service teachers turn out to be progressively learning teaching and composed on their reflective teaching development.

The typical setting for reflective teaching implementation within the Ethiopian teacher education institutions in general happen within public education faculties in government universities. It is believed that public teacher education institutions provide adequate school based experiences for pre-service teachers who are preparing themselves to teach with Ethiopian secondary schools. Public teacher education institutions are typically viewed as better than private teacher education institutions in Ethiopia due to the academic standards, the instructors, financial, material, and human resources for provision of all courses (MoE, 2009).

Because of the way that Ethiopian teacher training is entirely institutionalized inside the government education system, the typical context for reflective teacher education initiatives in general exist inside the government educational institutional condition. The quality of beginning teachers that come out of an institute of teacher education relies upon the effective and efficient training of teachers. This in turn partly depends on the

quality of teacher educators. At present, there is limited information about the academic and professional qualifications of teacher educators that can serve the purpose of selection and deployment of teacher educators. However, it is believed that government teacher educators within the public teacher education institutions fulfil the minimum profiles of teacher educators for the newly designed secondary teacher education programme to implement reflective teaching (MoE, 2009). This includes: minimum academic qualification, professional training, teaching experiences, ethical considerations as evidenced in the career history, and general considerations detailed in the teacher education programme (MoE, 2009).

According to MoE (2006), it is believed that teacher educators who successfully complete the higher diploma professional training will be proficient to recognize the attributes for teaching and utilize different assessment tools for preparing reflective teachers in Ethiopia, as the components are active learning, reflective teaching and action research, and continuous assessment (MoE, 2006). However, teacher educators training programme, which accompanies reflective activities, leaves less instructive opportunity for practice-based pursuits in higher education initiatives (Adula, 2016).

Despite the fact that reflective teaching practice aligns up with the guiding principles for the pre-service teacher education curriculum framework, teacher educators are restricted as far as their advancement making it progressively hard to dispatch reflective tasks inside the teacher education institutions. On the other hand, government teacher training institutions offer teacher educators more opportunity over their curricular decisions; this scholastic self-autonomy has prompted to a typical context for reflective teaching practices existing within the government teacher education sector.

As referenced above, reflective teaching practices tend to happen within the government secondary school teacher education institutions. In terms of explicit teacher education circumstances where one may hope to discover reflective teaching initiatives, typically, reflective teaching practice is conducted within secondary school teacher trainings, since secondary school teacher training institutions in the Ethiopian education system have the favourable position as far as working with prospective teachers, the typical situation for a reflective teaching practice implementation is inside the government secondary teacher education institution.

Institutional context and type appear to be a key issue in reflective instructional implementation. Subsequently, the reflective teaching development has principally been attached to government teacher education institutions in Ethiopia with teacher educators' attributes and pre-service teachers' availability. Reflective teaching practice when implemented with required professional inputs benefit lead to inquiry-based learning. For teacher educators with the necessary skills can manage and perform reflective teaching initiatives; reflective teaching is a colossal scholarly tool. In the event one shared traits exists within the typical institutional context for conceivable reflective teaching practices to emerge, that attribute would be insightful restricted to contextual. The type of open-minded teacher educators keen in making a critical trainee teachers' methodology towards reflective teaching preparations are the sort of practitioners that seek after reflective teaching programmes. Teacher educators who are willing and possess the required mentality for reflective teacher education curriculum are the type of teacher educators that tend to launch and pursue reflective teaching practice operation.

Teacher educators can utilize reflective practices in an assortment routes particular to their academic values. For instance, a teacher educator focusing on a specific professional trait could designate a reflective teaching project for pre-service teachers to display their views on a particular topic. During this reflective teaching task trainee teacher could make write reflections, and teach a reflective lesson that requires their thinking abilities on the reflective issue. The reflective teaching approach engages trainee teacher curiosity and inventiveness. As opposed to a traditional approach of instruction, which might require pre-service teachers to write a response or take tests, the reflective teaching methods stresses higher order reflective capabilities. Pre-service teachers can deal the tasks from points of view that exhibit their teaching dispositions.

Basically, reflective teaching relates to all subjects and pre-service teacher education institutions. Noticeably, one of the most crucial inquiries a teacher educator needs to mull over before actualizing reflective teaching in their subjects is regardless of whether they can give up total command over the learning procedures and learning outcomes inside their lectures. Reflective teaching is a jump into the obscure, yet the advantages of this jump are unmistakable over the learning processes and learning outcomes within their lectures. Moreover, the amount of time spent and the type of reflective tasks with/to his

or her trainee teachers affects the reception of reflective teaching. Because time restrictions and limited reflective tasks in pre-service teacher education institutions impact pre-service teachers' reflective teaching development.

2.4 APPLICATIONS AND BENEFITS OF REFLECTIVE TEACHING

Davies (2012) identifies the benefits within working with reflective teaching. His categories of reflective teaching benefits include:

- Increased learning from an experience from the situation.
- Promotion of deep learning.
- Identification of personal and professional strengths and areas for improvement.
- Identification of educational needs.
- Acquisition of new knowledge and skills.
- Further understanding of own beliefs, attitudes and values.
- Encouragement of self-motivation and self-directed learning.
- Could act as a source of feedback.
- Possible improvements of personal and clinical confidence.

As a result, being a reflective teacher means that the practitioner keeps an open mind about the content, methods and procedures used in the classroom; the teacher constantly re-evaluates the worth in relation to the students currently enrolled and to the circumstances; and the teacher doesn't only ask why things are the way they are, but also how they can be made better. Although considerable emphasis is placed on the need to develop this attribute for numerous reasons, it is noted that it can be a very challenging activity. The roles of the teacher educator, cooperating teachers, and peers assume increased significance in the process of nurturing the development of this attribute, particularly in the case of those pre-service teachers who might demonstrate limited capacity or reluctance to consider other ways of seeing or doing things.

Implementing a process of reflective teaching, teachers should move themselves and their schools, beyond existing theories in practice; teachers should resist establishing a classroom culture of control and become a reflective practitioner. Moreover,

practitioners should continuously engage in a critical reflection. Consequently, learning remains fluid in the dynamic environment of the classroom (Larrivee, 2000). However, it is implicit that reflective practice is only successful when it is implemented as learning by doing (Dewey, 1933; Gibbs, 1988). Thus, creating the link to help training teachers engage in a process of continuous learning makes a significant impact on practice (Schön, 1983). The practitioners in teacher education are also required to reflect upon practice with peers to review and refine their progression and perhaps for partners.

On the other hand, Stenhouse (1975) argues that the outstanding feature of extended professionals is their capacity and commitment to engage in autonomous self-development through systematic self-reflection. He identifies five key attributes to characterise extended professionals, as they examine their own practice. Specifically, the extended professional engagements in the pre-service teacher education consisted of integrating the best reflective practices into consideration. This includes:

- Critical and systematic reflections of practices.
- Questioning practices triggering professional development.
- The art of self-study to improve own teaching.
- The use of collaborators for professional accountability; and
- Doubting theories for verifications.

Besides, Stenhouse (1975) proposes the effective applications of reflective teaching to influence sound judgements, as reflective teaching greatly enhance pre-service teachers' capabilities to demonstrate openness to scrutiny from professional colleagues about their practice and being receptive to deliberating over alternative viewpoints. It is well established that these attributes have synergy with those pre-service teachers encouraged to develop as they engage in reflective practice to improve the quality and effectiveness of their own teaching, particularly in relation to their reflective experiences (Bolin, 1988; Francis & Cowman, 2009; Davies, 2012). In working applications, reflective teaching should systematically go through the reflective cycle of planning –acting – observing – reflecting, and continuing the self-reflective spiral of cycles; the foundation is laid for pre-service teachers to internalise the process and engage in the art of self-inquiry in future teaching so as to enhance their professional development (Carr & Kemmis, 1986; Farrell, 2007; Jacobs, et al., 2011).

In sum, literature showed that as a result of the applications of reflective teaching practices, two main forms of reflection have emerged: a weak form and a strong form. In its weak version, reflective teaching practice is said to be no more than thoughtful practice, where teachers sometimes informally evaluate various aspects of their professional expertise (Wallace, 1991; Kanh & Walsh, 2006; Kember, et al., 2008). This type of informal reflection does not necessarily lead to improved teaching and can even lead to more unpleasant emotions without suggesting any way forward (Wallace, 1991; Dinkelmann, 2003). The second type reflection is stronger form of reflection which involves teachers to systematically reflecting their own teaching and taking responsibility for their actions in the classroom (Farrell, 2007). Farrell (2007) also emphasizes this stronger version, trainee teachers should collect data about their teaching attitudes, beliefs, skills, assumptions, and to generate information for wisdom, as astuteness cannot be conferred.

On the other hand, the literature also demonstrates that there are barriers and issues in reflective teaching practices within the TEIs which have negative effects on the mission for intelligent teachers; and on the execution of educational programme in teacher education institutions (Davies, 2012). A number of major barriers are discussed below.

The first barrier to effective reflective teaching practice inside the TEIs is lack of practitioners' understanding to reflection (Davies, 2012). According to Davies (2012), a key to encouraging the development of inquiry-based learning in TEIs is to develop the comprehension of the practitioners' reflective teaching awareness. This could be articulated clearly by the framework and should be implemented seriously.

The second barrier to reflective teaching implementation in TEIs is practitioners' low intrigue and inspiration to assess and evaluate their own teaching. As in the case of Ethiopian teacher education students, it is seen that pre-service teachers are stressed over reflecting the teaching experiences using the reflection formats. As a result of the bulky and higgledy-piggledy reflective templates, the reflection process prompted perplexities among the pre-service teachers. There must be a reflective system that is coherent and coordinated using new intelligent tools for pre-service teachers so as to accomplish the desired results of reflective teaching.

The third barrier to effective reflective teaching among pre-service teachers within the public teacher education institution is the utilization of unclear and subjective criteria and standards of quality reflective teaching assessments (Davies, 2012). Literature shows in many of the initial teacher education frameworks, it is found that lack of authentic assessment techniques impacted to determine the pre-service teachers' capabilities for reflective teaching (Kember, et al., 2008). This has been specifically noticed in Ethiopia where teacher education institutions are struggling to achieve the outcomes as indicated in the licensure examinations of the pre-service teachers' scores.

The fourth barrier to effective reflective teaching in TEIs is time constraint. Literature shows reflective teaching requires reasonable time allocation for the practice-based learning programmes. However, it is documented that time has been the key constraint for effective reflective teaching in TEIs. In Ethiopian context, lack of time is the major cause pre-service teachers say couldn't exercise or use a range of reflective tools in the current teacher education programme, so addressing time barriers is critical to achieve quality reflective teaching practices.

The fifth barrier to effective reflective practices for pre-service teachers in teacher education institutions is the lack of reflective capabilities to resolve classroom problems. One of the objectives of a reflective teacher education curriculum framework is to produce teachers as clinical enquirers. As a result, student teachers are supposed to perform self-study projects to bring change in the classroom. However, literature revealed that pre-service teachers lack the skills to work out such actions (Sahin-Taskin, 2008). In ETEIs, for example, action research as a strategy for managing classroom problem and portfolio as a demonstration of reflective ability by the pre-service teachers are worrisome.

2.5 A CURRICULUM FRAMEWORK FOR SECONDARY SCHOOL TEACHER EDUCATION PROGRAMMES IN ETHIOPIA

In this section, the researcher critically reviewed the teacher education curriculum documents in Ethiopian pre-service secondary school teacher education programme to indicate both its merits and demerits of the programme so as to suggest ways of improving the reflective teaching implementation. The curriculum framework has been in

place since 2009. The review of the curriculum framework is done sequentially to assess the implementations of the reflective teaching practice within the recent pre-service teacher preparation programme in Ethiopia.

In Ethiopia, the most significant secondary school teacher education curriculum framework is the PGDT (MoE, 2009). Accordingly, the curriculum framework declares the secondary school teacher education in Ethiopia imagines seeing secondary school teachers who are equipped for creating mindful and skilful nationals, focusing on their profession and prepared for lifelong learning, and regard to carry on as per the democratic principles enshrined in the constitution (MoE, 2009).

The key aspects and elements of the current teacher education curriculum framework have been examined for this study. For clarity, this is done with a brief analysis of the aims, standards, guiding principles, the contents and implementation strategies included in the programme for reflective teaching practice training.

2.5.1 Aim and goals of the teacher education programme

The reflective teaching practice in Ethiopian Teachers' Institutions since 2009 had been to a great extent predisposed by the principal aspiration of building a teacher education programme based on pragmatism and reflective practitioners' orientation. Thus, teacher education graduates are expected to change the existing inefficiencies in the secondary school teaching and learning process through reflection by involving the pre-service teachers in self-assessment and reflective practice. Though partnerships could be useful, it must be more about introducing new practices in collaboration with teachers rather than about modelling and imitation (MoE, 2009:5).

2.5.2 The standards for pre-service secondary school teachers

The Ministry of Education sets out five standards which pre-service teachers must achieve in order to be qualified. The standards and evidences expected to be available during the teaching and learning process are summarized into Table 2.1.

Table 2.1: Standards and evidences for the pre-service teachers to demonstrate (MoE, 2009:8-9)

STANDARDS	EVIDENCES
i. Facilitate Students' Learning	<ul style="list-style-type: none"> ■ Plan to support students' learning by considering students' developmental level, experiences, curricular materials etc. ■ Practice/Apply diverse active and reflective instructional techniques pertinent to objectives and contents and promote construction of knowledge based on learners' prior experiences ■ Value and demonstrate understanding of individuals' differences in learning styles, learning needs, and abilities in designing learning experiences, execution of lessons, and managing students' behaviour. ■ Manage instructional environment and learners' behaviour in the teaching learning process ■ Use instructional resources (out-of school and in-school) and technologies to facilitate students learning ■ Use subject-specific pedagogical knowledge and academic knowledge to provide learning experiences that are related to experiential learning ■ Present lessons in engaging and motivating manner
ii. Assess students' learning and use the information for improving teaching practices and students' learning	<ul style="list-style-type: none"> ■ Use various assessment techniques to diagnose students' needs, teaching and learning process and in line with the objectives, content ■ Monitor and assess students' learning progress continuously to provide timely and constructive feedback to students and use it as the basis for ongoing planning of teaching. ■ Record students' learning progress and outcomes ■ Provide information for students, parents and concerned bodies.
iii. Engage in Continuous Professional Development	<ul style="list-style-type: none"> ■ Reflect on professional practice/experience in one's own and in collaboration with others to identify professional development needs ■ Initiate action/Employ/use professional development models to address their needs and promote ongoing professional development
	<ul style="list-style-type: none"> ■ Involve continuously in updating subject matter knowledge ■ Value that professional development is one's own responsibility by challenging toxic school culture and initiating new ideas and practices in schools ■ Keep developing professional development portfolio as part of their CPD

<p>iv. Understand the education policy and strategies and participate in curriculum and other programme development initiatives</p>	<ul style="list-style-type: none"> ■ Understand and use the education policy and the curriculum framework in the teaching and learning process ■ Participate in collaborative curriculum development processes and discussions based on a thorough understanding of the policy by considering learning theories ■ Participate in extra-curriculum activities and programmes outlined in line with the education
<p>v. Establish and maintain partnership with the school community</p>	<ul style="list-style-type: none"> ■ Demonstrate the professional ethics of caring in their relationship with learners as individuals or humans (Incorporate appreciation and respect in the statement) ■ Value collaboration and work co-operatively with colleagues and other school communities ■ Communicate and interact collegially and effectively with various members/stakeholders of the school community ■ Respect the ethical requirements of the teaching profession in their co-working relationships with school communities.

The main standards for the pre-service secondary school teachers as shown in Table 2.1, according to MoE (2009:8-9) are to facilitate students' learning, assess students' learning and use the information for improving teaching practices and students' learning, engage in continuous professional development, understand the education policy and strategies and participate in curriculum and other programme development initiatives, and establish and maintain partnership with the school community. Each of these standards must have all the necessary evidence prepared so to determine the pre-service teachers do match up to the standards and expectations of their professions (MoE, 2009). Each of the five standards represented above shows the value choices of the curriculum framework related to pre-service teachers expected professional preparations.

2.5.2.1 Facilitate students' learning

This standard looks for the pre-service teachers to utilize student-centred pedagogical procedures to facilitate students' learning that is relevant to the identified outcome of learning required in and for Ethiopian students. This standard also seeks to determine to what extent the pre-service teachers thoughtfully utilize reflective instructional strategies to respond individual learner's learning styles using subject-specific pedagogical knowledge and academic knowledge to provide learning experiences that are related to experiential learning through presenting lessons in engaging and motivating manner, and also whether the prospective teachers do practice teaching against the relevant the expectations in the policy (MoE, 1994).

2.5.2.2 Assess students' learning and use the information

The assessment of students' learning and use of information for teaching improvement standard seeks to verify that the pre-service teachers have sufficient knowledge and capabilities to diagnose and assess students' learning outcome as stipulated by the policy (MoE, 1994). The intention of the pre-service teacher education programme with this standard is to ascertain that trainee teachers have adequate experiences to use various assessment techniques to monitor students' learning and use information as the basis for ongoing planning of teaching.

2.5.2.3 Engage in continuous professional development

The engagement of teachers in continuous professional development seeks that trainee teacher are prepared in a manner that that reflects good practice principles in professional experiences and, where, comply fully with procedures and requirements specified by the programme (MoE, 2009). With this standard, the teacher education curriculum framework expects from the TEIs that a range of reflective tools such as action research and development of portfolio as part of their training. Ethiopian pre-service secondary school teacher education with this standard also demands that the pre-service teachers reflect on the teaching practice in their own and in collaboration with others to identify areas of improvement.

2.5.2.4 Understand the education policy and strategies

The understanding of educational policy and strategies and participation in curriculum and other programme development initiatives standard seeks to verify that pre-service teachers are being taught in accordance with the pedagogical approach put in place in the education policy and the curriculum framework (MoE, 1994; MoE, 2009). With this standard, the teacher education programme demands the processes and procedures in the teaching and learning process are making certain that the curriculum being implemented does help them participate in collaborative curriculum discussions by considering learning theories and also assist them participate in extra-curriculum activities as outlined with the education policy (MoE, 1994).

2.5.2.5 Establish and maintain partnership with the school community

This standard looks to check that that TEIs collaboration with school's supplements and reinforce qualities. The TEIs will keep on strengthening this partnership and build up a purposeful exertion to make and support relationships among secondary schools. TEIs accomplices can enable schools prepare students for teaching profession. There is a tremendous power in setting up partnerships between schools and the teacher training institutions. Increasing pre-service teachers' involvement correspond teaching effectiveness. Establishing successful school partnership includes building up the core values: esteeming collaborations, professional ethical requirements, and communication aspects of working together. With this standard, the teacher education curriculum framework expects from the TEIs that the teaching and learning activities they offer engage students and staffs to the school activities (MoE, 2009).

2.6 REFLECTIVE TEACHING AND RESEARCH IN THE 21st CENTURY

Existing exploration in the field of reflective teaching demonstrates that much has been accomplished in making clear and worthy meanings of reflection, recognizing qualities of reflective practices, and established philosophies for reflective teaching practices, yet little investigation into the comprehension of the key partners who take part in the pre-service teacher education programme. At this time, a consistently expanding

loyalty reflection, reflective practices, and reflective teaching is apparent to the point where reflective teaching and its related terms are fundamental parts of teacher education around the world (Norsworthy, 2009; Amobi, 2005; Ward & McCotter, 2004; Gürbüz & Kışoğlu, 2007; Dereje, 2012; Taole, 2011; Amakyi & Ampah-Mensah, 2014; Mann & Hyacinth, 2014; Korumaz & Karakas, 2014; Lemon & Gravis, 2014; Grudnoff, 2011; Ogonor & Badmus, 2006; Bates, Ramirez, & Drits, 2009).

The conventional teacher-centred teaching strategies practiced have impacted the future teachers that are currently instilled at teacher training institutions, as far as absence of the systematic process of learning; hence, missing the meta-cognitive attributes. As per King and Kitchener (1994), meta-cognitive aptitudes include arranged, educated, intentional control of how to think and what to think with the end goal to maximize progress and limit inaccuracies. According to Sahin–Taskin (2006), it has been found that many teacher education programmes have given the pre-service teachers deficient ways to draw in them energetically in developing and demonstrating lessons and to enable them connect research and practice as well as create research-based teaching strategies. In this way, action research was not encouraged for better practice and this has impacted adversely the reflective practice among pre-service teachers (Sahin–Taskin, 2006). The absence of peer and self-observation which should be embedded in the teacher preparation programmes were also viewed as factors that hinder reflection among pre-service teachers (Ferraro, 2000).

Ward and McCotter (2004) in their investigations, on the other hand, found that pre-service teachers have a clear comprehension of reflection and value its role in helping them to develop as teachers and improve their training. Some do think about more extensive issues in their reflection; although, the majority of the pre-service teachers are not looking past their own teaching. The results indicated that individuals engaged with reflection in different ways, while composing experiences to support reflection for some individuals, it sometimes fails short for all. Consequently, pre-service teachers' confronted troubles with journal writing; and are related to personal elements and the deeper issues of articulating thoughts into words, suggesting that they may find unconventional techniques, for example peer or mentor dialog (Harrison, et al., 2005).

Norsworthy's (2009) completed a study on pre-service teachers' reflectivity in New Zealand in which pre-service teachers could categorize facets of their initial underlying training that go about as snags or helps to creating reflectivity found that the concept of reflection was viewed as something to be done or obtained instead of as a manner or method of being. Besides, Grudnoff (2011) explored first-year primary teachers' perceptions of how their practicum incidences set them up for starting teaching in New Zealand. And the study showed that, while the beginning teachers reliably saw the practicum similar to a key piece of their pre-service teacher education, their practicum experiences were not constantly accommodating in supporting their learning to teaching. While acknowledging that the practicum cannot replicate the conditions of full-time teaching, the discoveries suggest that the practicum ought to be reconsidered in order to effectively put in order for the complexities and demands of beginning teaching.

A study on establishing pre-service teachers' reflectivity with the existing practice, suggested that pre-service teachers perceived reflection uniquely in contrast to the teacher educators. And the study urged examining how stakeholders' reflective conceptualizations in the current teacher education programmes in order to determine the values attached to it. This is because the reflective vignettes of experience, interview extracts, journal entries and descriptions of teaching challenges were found to making reflections unclear. Also the investigation suggested that reflection could occur intuitively and these experiences would produce relevant data for making reflections more tangible for the pre-service teachers (Mann & Hyacinth, 2014),

As far as the reflective experiences of teacher education students is concerned, Taole (2011)'s study on reflective experiences of Post Graduate Certificate in Education students during the teaching practice in South Africa found that reflective teaching was a challenge to pre-service teachers. As a result, pre-service teachers could not recognize their deficiencies in their classroom performance. On the other hand, participants reflected on teaching methods and teaching media believed that these experiences could improve the learning and teaching process in teacher training programmes. It is also seen that joint effort among partners and an inspirational frame of mind towards teaching could upgrade pre-service teachers' reflective exposures. Additionally, a research on prospective teachers' attitudes towards reflective practice in

the mathematics teacher education programme at the University of Hong Kong showed that careful utilization of probing in the post-lesson interviews aided pre-service teachers' reflection moved from a routine and technical level towards a dialogic level (Mok, 2010).

Regarding teacher educators' reflectivity, a study by Korumaz and Karakas (2014) on English language instructors' attitudes towards reflective teaching in Turkey exhibited that educators tend to hold inspirational dispositions towards reflective teaching. In addition, Amobi (2005) revealed that lecturers viewed reflective teaching as a method of reflection on teaching; as a result, teachers are intrepid to having alternative perspectives on any particular issue and are courageous. Despite the overwhelming difficulties that pre-service teachers will proceed to confront, teacher educators have been hunting down approaches to help pre-service teachers develop a lifelong capacity right on time as could be expected under the circumstances (Smis & Walsh, 2008; Scales, 2013). As a consensus regarding the importance of fostering reflective teaching in teacher education teacher education institutions around the globe are moving away from the traditional methods of teacher education programmes based on the reflective instructional approaches (Wallace, 1999).

Bates, et al. (2009) reported the experiences of supervisors regarding pre-service teachers' critical reflection were found to impact their reflective teaching development. Moreover, the findings showed that an understanding of critical reflection is something that works after the pre-service teachers got exposures to supervisors' support; explicitly modelling, guiding, and communicating the importance of critical reflection in the teaching practice process.

Ogonor and Badmus (2006) inspected the change result of reflective teaching presented by the Faculty of Education for the pre-service teachers in a Nigerian University indicated that pre-service teachers were elated and gotten the open door for expert development, as they rehearsed reflective teaching. However, the pre-service teachers likewise expressed that the partnership schools could not render special expertise support to them in the midst of the training time frame. The pre-service teachers listed the constraints for effectively reflective teaching practicum were serious

pressure for time, the failure of school specialists to give the required basic materials and the roles the cooperating teachers played for reflective teaching development were less.

Similarly, Dereje (2012) in his study on reflective practicum in the Ethiopian context showed that the nature and type of the reflection devices the pre-service teachers utilized was exceedingly structured, performance-oriented and underpinned by pre-defined destinations for teaching. Accordingly, a set of observation checklists was circulated to each pre-service teacher. Thus, the pre-service teachers felt uninvolved in thinking, analyzing, exploring, discussing and documenting why and what-ought-to be done for reflective teaching, during their practicum encounters. Finally, Amakyi and Ampah-Mensah (2014) in their examinations on the adoption of reflective practice in Ghana found, with emphasis on artistry, which is reflection-in-action as a reasonable instructional expertise to supplement what the training institutions are presently doing to actualize their central goals.

From the reviews above, it should be noticed that, despite the importance of reflective teaching for the contemporary world, international explorations showed that some teacher education institutions around the globe do not have exhausted guideline and framework for reflective teaching practices. As a result, pre-service teacher education programmes do not have sufficient acquaintances for reflective teaching for the schools. The empirical review has likewise uncovered that pre-service teachers and cooperating teachers needed knowledge building mechanisms and competences developing tools for better reflective learning and teaching in the pre-service teacher education curriculum. Therefore, it is leant that reflective teaching practice is being implemented erratically over the teacher education institutions.

2.7 CLOSING REMARKS

This chapter discussed the contextual overview and the current status of reflective teaching with contrast to others experiences for lesson drawing and context understanding. The conceptual framework develops focus for the study, while developing a link between the literature review and the information obtained through

empirical studies.

From this chapter, it is believed that scholars might find out the benefits of reflective teaching practices as an educational intervention for quality instruction. The purposes and benefits of reflective teaching practices were delineated from the teacher educators, pre-service teachers, and cooperating teacher's viewpoints, cover up the advancement of a reflective framework in teacher training for its better execution. Besides from Chapter 2, the prerequisite of proposing a reflective framework for teacher education implementation was examined. The context presented within this chapter confirmed why adopting a reflective framework would empower pre-service teachers' teaching and learning. Chapter 3 discusses the conceptual and theoretical frameworks for the study.

CHAPTER 3

CONCEPTUAL AND THEORETICAL UNDERPINNINGS

3.1 INTRODUCTION

This study focused on the investigation of reflective teaching practices of secondary school pre-service teachers with regard to their experiences of reflective practices as an approach to professional development-reflective practitioners. It is informed by various bodies of research on professional development; including literature on teacher training. There is an extensive collection of literature which covers the issues of reflective practice in the teacher education programmes.

The literature of reflective teaching and learning gave important bits of knowledge in such manner, as the focal point of this investigation depends on the chosen conceptualizations and perspectives on the issue under investigation. The contemporary training initiatives push the significance of reflection in teacher education programmes. Numerous perspectives have their underlying foundations in reflective assumptions. In the reflective structure, reflection is thought to be the most imperative prerequisite in the expert principles for teacher training. Henceforth, one of the objectives of teacher training is to build up each pre-service teacher into a reflective teacher. A reflective teacher is defined as one who is a long-lasting student who sees each involvement as an open door for development, change, and advancement of comprehension (Hutchinson & Allen, 1997).

This chapter sets out the conceptual and theoretical underpinnings of this research. The conceptual and theoretical frameworks can be portrayed as an arrangement of thoughts, suppositions and ideas requested in a way that educates us about the world, ourselves or a part of the real world (Landsberg, et al., 2005). In connection to research, a conceptual framework gives the researcher the focal point to see the world and gives clarifications about marvels (Merriam, 2001). The issue can be framed in various ways with the outcome that there are various conceptual and theoretical underpinnings for dealing reflective teaching practices.

The chapter reviews the writings concerning the meaning and nature of reflection, reflective practice, and reflective teaching. These ideas have been the aspects of discussions on the inscriptions within reflective teacher education programmes. The main purposes of reflective ideas are on what makes difference in quality teaching and preparation of good teachers by initial teacher education programmes. This section deals with the debates featured in the understanding of reflective teaching practices in teacher training. It begins with the different conceptualizations proposed to comprehend reflection and reflective teaching. As is common to characterize, there seems to be no universally acknowledged conceptualizations of reflection, reflective practices, and reflective teaching.

The review in section 3.2 examines the conceptualizations of reflection. The review in section 3.3 presents the understanding of the reflective practices, including the reflective models developed for teacher education and drives a synthesis of common features. Section 3.4 discusses the idea of reflective teaching in teacher education. In this examination, the investigation of reflective teaching practices of teacher training programmes in getting ready pre-service teachers for intelligent teaching as a method for guaranteeing quality instruction in Ethiopian secondary schools is grounded on constructivism theory of figuring out how to instruct. Finally, section 3.7 shows the conceptual framework of the study and section 3.8 gives the closing points of the chapter.

3.2 CONCEPTUALIZING REFLECTION

This section is aimed to give working meanings of the most frequent and common terminology. Hence, this study makes use of essential expressions persisted in the literature with the end goal to build up the main themes of the investigation.

3.2.1 Meanings of reflection

Characterizing the term reflection is one of the testing undertakings among researchers and analysts in the field of instruction. Nonetheless, in the present literature, the term reflection is being used to express an immense scope of works, going from basic

reasoning about a solitary aspect of a lesson to thinking about the moral, ethical, mental, personal, social and political ramifications of teaching. The literature portrays the various levels, procedures, or kinds, of reflection engaged with the advancement of reflective practice (Mcintosh, 2010; Bolton, 2010; Pollard, 2014; Sellars, 2014).

The term *reflection* and *reflective idea* have been contrastingly connected with critical incidences that include disparities, disappointments, practicing wisdom and making judgments, critical thinking and dealing the chronic uncertainties in connections to learners who build their own implications within a community of expert discourse (Dewey, 1933; Mezirow, 1990; Boud, 1999).

Boud, Keogh and Walker (1985:19) recognise how reflection and learning may be connected as:

... reflection is vital human activities, in which people recover their experience, consider it, think about it over and assess it. It is this working with an encounter that is imperative in learning. The ability to reflect is created in different stages in various individuals and it might be this capacity, which characterizes the individuals who gain viably as a matter of fact.

Dewey (1933)'s definition of reflection focuses on reflective thinking orientations of inquiry, reflection as a state of uncertainty, dithering, puzzlement, or mental trouble, in which thinking starts, additionally reflection is an active, industriousness and watchful thought of any conviction or assumed type of learning. Others go further to characterize reflection as a method for considering what one is doing; a process of contemplation with receptiveness to being changed, an ability to learn, a sense responsibility for putting forth a valiant effort (Jay, 2003; Tate & Sills, 2004). Furthermore, reflection is viewed as a mean of critical thinking, through which people put themselves into the occurrence and investigating to figure out it and deal it in different ways (Tate & Sills, 2004).

In addition, it is understood that the ultimate goal of reflection is to enable practitioners investigate and express what they are learning through their critical incidences so that both the learning and the training are enhanced. This implies that to become informed, deliberate and keen decision makers, pre-service teachers ought to be urged to scrutinize their very own actions. In this regard, the pre-service teachers' inspection of their activities should incorporate the background experiences and rethink personal dispositions, presumptions, convictions, information, speculations, understandings and values in the light of the teaching involvement. In this manner, the pre-service teachers can process their encounters in various ways to explore their comprehension of what they are doing, why they are doing it; and the impact it has on themselves as well as other people (Boud, 1999:122-123).

The different originations evolving over several decades depict reflection as either an iterative procedure or a progression of taxonomies of reflection. Iterative process portrays reflection as a procedure that incorporates the reiteration of a progression of ventures so as to settle on a clinical choice (Dewey, 1933; Schön, 1983; Mezirow, 1990). Others represent reflection to happen hierarchically; dependent on a thought that is compared to echelon where it is usual to detect shallow strata of reflection, such as constant activity during practice, but increasingly hard to achieve the more profound levels, for example, higher reflection (Van Manen, 1977; Boud, et al., 1985; Larrivee, 2006).

3.2.2 Nature of reflection

The idea of reflection is tied in with discussing the attributes in terms of the general phases (Kiser, 1998). These general stages are:

- 1) *Description* (unbiased) of an experience.
- 2) *Analysis* as per important categories of learning.
- 3) *Articulation* of learning outcomes.

Accordingly, in reflection, the first phase is to review the circumstances, occasions and activities that occurred previously. It consisted of describing the experience of what a

student did or plan to do and of how to approach something and it works. The analysis phase is structured into the categories of learning. When engaged in academic examination, student teachers look their incidences in light of particular concepts, exploring similarities and contrasts among theory and practice. In the investigation, the pre-service teachers think their sentiments, conjectures, potencies, shortcomings, attributes, handiness and feeling of way of life as they are faced and sometimes confronted by overhaul-learning experiences.

While looking at the reflection from the public point of view, pre-service teachers investigate deeds made and were interventions taken in light of ramifications for the benefit of everyone, think unconventional approaches and versions, identify components of supremacy and benefit, and analyze options for a present moment against long-term and should bring forth maintainable alterations. Presently, diversity is seen as a fourth category in which students identifies and analyses the sources and significance of assumptions or understandings in regards to those different from themselves or others and evaluates strategies for maximizing opportunities and minimizing challenges associated with those differences.

The articulating learning phase brings each reflection activity to a close and builds up a foundation for learners to convey the after-effects of the reflection process beyond the prompt experience, and enhancing the quality of future learning. Along these lines, the articulating learning process encourages them in perceiving what they have learned through reflection on experience, placing it in context, and communicating it concisely. In other words, reflection sustains practitioners think critically about pre-service teachers' very own learning.

3.2.3 Processes of reflection

Reflection takes part in the process of conveying forward and backward among thinking and acting. However, the procedure may show up contrastingly in various situations. In general, processes of reflection can be classified as either an iterative process or as a series of dimensions of reflection. The iterative process represents a reflection procedure that incorporates the redundancy of a progression of steps with the end goal

to decide (Schön, 1983; Mezirow, 1990). On the other hand, reflection occurs taxonomically based on a thought that reflection is compared to echelon where usually to find outward types of reflection, such as routine activity amid teaching, but more difficult to reach the higher order analyses, reflective teaching (Van Manen, 1977; Boud, 1985; Larrivee, 2008).

3.2.3.1 Reflection as an iterative process

Schön (1983) in his endeavour to characterize the modes of reflection distinguished reflections in action and reflection on action. He sets that it might be too demanding to even consider reflecting in the time given the various requests the teachers cope with and that reflection regularly requires a point of view of a meta-position, thinking after the move has made a place. For example, concentrating on finishing a lesson may divert from focusing on the manner in which a teacher cooperates with students (Larrivee, 2008).

Schön (1987) also talked about the possibility of two kinds of reflection: reflection-in-action and reflection-on-action, to which has been added a third type, reflection-for-action. Reflection-in-action describes the consistent checking by the teacher of the classroom situation. In this case, teachers react to occurrences, choose whether to change the action, and are cautious for chances to tackle troublesome issues. Reflection-on-action, on the other hand, is an improvisational ability that should be learned and after that ends up for better reflective teaching. Expert teachers modify and may even abandon their plans during a class, sometimes without being conscious of why they are doing so. A noteworthy advantage of reflection-in-action is that it can change teachers' instructional behaviours almost instantly, and subsequently affects classroom dynamics (Knight, 2002; Ghaye, 2011).

Reflection-on-action happens in the wake of teaching has occurred. Reflecting-on-action enables practitioners to recollect the class and perhaps explore why certain things happened the manner in which they did. Reflection-on-action may also take the form of questioning presumptions, actions or dispositions, looking into solutions to teaching difficulties. Thus, scrutinizing one's suspicions and mentalities should take place within a framework (Knight, 2002; Ghaye, 2011).

On the other hand, reflection-for-action is thinking about the idea instructional practice that one wishes to build up. It is additionally illustrated that reflection-for-action as the coveted outcome of reflection-in and reflection -on- action. It is conceivable that reflection-for-action is both more profitable and more accessible for beginning teachers, as new teachers cannot easily reflect-in-real life and does not yet have the expertise to examine their presuppositions by means of reflection-on action (Knight, 2002; Ghaye, 2011). Schön (1987) presumed that both reflecting on action and reflecting in action are comprehensive processes utilized by teachers to enhance classroom outcomes.

Schön's universal description of reflection recognizes experts in numerous disciplines as intelligent professionals, but in recent times the job of the reflective expert has turned out to be huge in the teaching professions. He characterized a reflective teacher as an expert who can recognize fundamental professional issues, provoke plainly obvious realities, look for feedback, and use reflection for self-awareness (Schön, 1987).

On the other hand, Dewey gives a system that is entirely sequential and portrays the vigour of teacher's reflection based on the deepness of the echelons of reflection reached. He sees reflection as dynamic, tenacious and cautious thought of any credence or assumed type of learning in the light of the grounds that hold up and the supplementary consequences to which it leads. This depicts reflection as a component of a bigger procedure with a learning experience. The premise of this process is that reflection is clearer, deeper, critical, expository, but difficult to reach, thus, less likely to be illustrated (Dewey, 1933).

Like Schön, Dewey suggested that reflective notion is incited by an occasion that actuates a condition of ambiguity, mystification or improbability. Dewey's conceptions of reflection start with a condition of uncertainty because of difficulty in comprehending an event or taking care of an issue. This is analogous to Schön's concept of revelation. As a result, the practitioner strives to recognize the scenery of the dilemma and attempts to clarify or understand the issue by supplying some evidences from the truth of the conclusion or conscious conceivable options. Next, the practitioner will expand the contemplations thoughts deductively and finally test the speculations through action. The dimensions discovered by Dewey are fundamentally the same as the procedure

anticipated by Schön. The fundamental distinction between the two general rules is that Schön trusts that his developments are a piece of frequentative, whereas Dewey trusts that the processes will be segments of reflection with breadths of arrangement that do not really is monotonous or recurring (Dewey, 1933).

Furthermore, Boud (1985) portrays reflection as a non-exclusive term for those academic and affective activities in which practitioners draw in and look at their occurrences so as to prompt another comprehension and approval. In this sense, commitment and examination call for reverberation of ladders that at the end of the day base at another learning knowledge or wisdom. Boud (1985) additionally depicts reflection as both a consecutive process that contains hierarchaly presented sections of learning within the method.

The reflector should initially come back to the incident and recall the critical events or replay the underlying knowledge. This progression could be viewed the most essential form of reflection, yet as the reflector travels through the course of action, he/she might possibly encounter the steps that go more into the situation for knowing or development (Mezirow, 1990; Boud, et al., 1985).

The subsequent stride is taking care of an inclination which incorporates two sections: the usage of positive sentiments and reducing awkward emotions. Using positive emotions happens when the practitioner spotlights on the constructive events and finding out about the episode to advance proficient development. Evacuating impeding sentiments is indispensable for discerning thoughtfulness of dealings in such case the individual turns out to be perturbed or humiliated by an episode and cannot dig up beyond these negative sentiments he/she rules out improvement.

Boud's third step is re-examining the incidence, which incorporates the classification of reflections illustrated as an affiliation, coordination, approval, and appropriation. Affiliation is the interfacing of thoughts and emotions which are a piece of the first occurrence and those which have happened during reflection with what the practitioner definitely discerns. It is more valuable to the reflector to have whatever number of the relationship as could reasonably be expected, in light of the fact that this will take

into account the learning openings. Integration occurs when affiliations are handled and inspected. While association only perceives likeness, connection, or coordination takes place when the expert reaches inferences about the related events.

The last two elements of Boud's system are more probably been seen in crucial reflectors than typical reflectors because of the requirement for profound attention and careful reflection. After the practitioner has experienced any or all of these stages, he or she will make results of reflection which could include another method for accomplishing, elucidating a matter, or building up another skill.

Mezirow (1990) also uses a linear process to portray reflection and differing echelons which incorporates standard activity, thoughtful action/comprehension, reflection, and critical reflection. Habitual action is what has been discovered previously and is the movement that expects practically no conscious thought. In like manner, reflection is the testing of specific beliefs or exploring different avenues regarding assumptions. Challenging the conventions and securitizing the validity of an old viewpoint implies one has turned out to be a reflective practitioner. In the event that an expert doesn't take an interest in testing and addressing what he or she has always known to be valid, no reflective development can occur (Kember, et al., 2008).

Given the above descriptions and processes of reflection, researchers have tried to discover proof of reflections in teachers' idea and discourse (Rodgers, 2002). Hatton and Smith (1995) used reflective writing texts as information from which to extract evidence of reflection on- and -in-action. The consequences of their investigation depict technical, descriptive, dialogic, critical, and contextual qualities of reflection are found in the teachers' writing.

3.2.3.2 Reflection as a hierarchal process

Van Manen (1977) proposed a progressive depiction of three levels, to be a specific technical, practical, and critical reflection. The technical reflection is the genuinely prompt and assisted in contemplating utilization of capabilities where the professionals experience issues associating their classroom activities to overall goals and is

concerned with the productivity and viability of intends to attain particular closures (Van Manen, 1977). The second type of reflection (descriptive) or engaging takes into consideration open examination of the methods, as well as of objectives as practitioners look at examine assumptions and associates them with actual learning outcomes (Eryaman, 2007). The third and arguably highest order of reflection engrosses both technical and practical stages. In addition, it calls for moral, ethical, socio-historical, and politico-cultural contemplations that are identified with activity and decisions about whether expert action is fair, just and conscious every person is equal.

The critical reflective teacher draws upon a more extensive scope of perspectives and is sufficiently adaptable to use and investigate innovative methods of operation in teaching (Hatton & Smith, 2006). In addition, reflection is a viable way to imagine the types of reflection for which pre-service teachers have been assessed previously (Hatton & Smith, 2006). On the other hand, Larrivee proposed various levels of reflection, namely pre-reflection, surface reflection, pedagogical reflection, and critical reflection (Larrivee, 2004; Larrivee, 2008).

At the pre-reflective or non-reflective level, beginning teachers respond to students and classroom circumstance mechanically without due consideration of elective reactions. They work with automatic responses ascribing responsibility of problems to students or others, seeing themselves as causalities of the scenery. They underestimate incidences and do not adjust their teaching in terms of students' preferences and necessities (Larrivee, 2008).

At the level of surface reflection, teachers' reflections centre around systems and strategies used to attain foreordained objectives. Teachers are bothered with what works in the classroom as opposed to with any thought of the value of such destinations as closures in themselves. At the level of theoretical reflection, teachers reflect on educational goals, the theories underlying approaches, and the connections between theoretical principles and practice. Teachers taking part in academic reflection endeavour to understand the hypothetical explanation behind classroom practice and to cultivate consistency between embraced premises (what they say, they do and accept) and methodologies being used (what they really do in the classroom) (Larrivee, 2008).

At the higher order reflection, teachers reflect on the moral and ethical repercussions of their classroom practices on students. It grips assessment of both personal and expert convictions. Thus, solitary reflection is an implanted dimension of critical reflection (Larrivee, 2008). Self-reflection focuses on looking at how one's mind setting and worth, desires and suppositions, family engraving, and social conditioning influence students and their learning (Larrivee, 2005). Self-reflection entails an inward inspection of values and beliefs, exemplified in the statements teachers make and the prospects they own for students.

In view of a broad study of the relevant literature, the different notions evolving over several decades depict three distinct stages of reflection (Jay & Johnson, 2002; Farrell, 2004).

The three levels are:

- 1) a first level; concentrated on teaching capabilities, actions or aptitudes, generally considering teaching scenes as disengaged events;
- 2) a more advanced level; thinking about the methodology and coherent explanations behind the current practice;
- 3) a superior reflection; where teachers analyze the ethical, social and political outcomes of their teaching, thinking with the definitive reasons of schooling has been most utilized (Jay & Johnson, 2002; Farrell, 2004).

3.2.4 Strategies for reflection in teacher education

Kahn and Walsh (2006) state that in order to improve reflective teaching showing, pre-service teachers need to consider their preparation and require outfitting the methods for reflection. In doing so, reflective skills, both cognitive and pedagogical tools, should be engrafted in the curriculum framework and curriculum organization of teacher education (Roe, et al., 2010).

Strategies for teacher reflection that have been observed to be valuable in advancing reflection incorporate journal writing, teacher stories, autobiography, metaphor, critical

incidents, support groups, critical friends, and action research. Blending these errand structures in innovative manners and applying them independently, collaboratively, and with regulated mentoring is probably going to suffer the best prospective for encouraging highly classified expression. Valli (1997) in his investigation in the United States teacher education found the utilization of action research, supervision, writing tasks/journaling, case studies and classroom discussion to promote reflection.

Besides these instructional activities, another critical method for enhancing pre-service teachers' reflection is utilizing portfolio, which was first used during the 1980s with an expectation that it would chip in to the progress and advancement of teacher awareness and prompt improvements in the teaching profession (Bird, 1990). Yet, literature showed the demand for post-observation, dialogue and discussing thoughts for building up teachers' reflection. Furthermore, this ought to be an area of development for teacher readiness in institutions to enhance reflective abilities of pre-service teachers.

The following means are shown to promote better reflections:

- Voice recording and videotaping observations.
- Organizing and encouraging the logistics for peer observations and peer feedback to be embedded in the practicum and training structure.
- Constructing an e-portfolio for students to share observations.
- Designing gathering and discourse before to composing reflections. This needs to be indicated as an undertaking and allocated time inside practicum as a post observation and post teaching task.
- Writing and publishing students' reflective journals and developing a reflection blog.

Reviews demonstrated that in order for teachers to employ in articulation as delineated in the reflective teaching practice, they must scientifically congregate information around their practice. This case of participation shows that teachers get their sentiments and suppositions about their practices evident in their expository reasoning of their guidance. The emphasis on reflection turns out to be particularly vital important for

teachers who have made a selection to join the teaching profession and decide a new career and content.

3.2.4.1 Tools for promoting teachers' reflections

Pre-service teachers can adapt various strategies to facilitate reflection over the course of their teaching and learning arrangement. Each strategy can be applied exclusively or in combination with others, contingent upon the subject of educational analysis. Each approach is important for promoting reflective teaching. This part delineates the most often utilized ways to encourage the development of reflection in teacher preparation.

The instruments frequently applied to serve the growth of reflection in the teacher education context include reflective learning journals, autobiographies, portfolios, action inquiry, critical group audience and mentoring. On the other hand, micro-teaching or video reflection and the use of web based journals called blogs are more broadly considered today as valid tools for on-line learners in particular. Wang and Hartley (2003) prompted that video technologies provide modern-day teacher candidates with the opportunity to archive the rich contexts of teaching and discovering with the important perspective to observe and contemplate precisely.

In gist, the video promotes experiential learning by permitting the pre-service teacher to move from player to watch and from involvement to separation (Kolb, 1984; Wang & Hartley, 2003). Furthermore, it has been shown that editing video of their own teaching can offer teacher candidates the stretched out commitment expected to empower reflective thinking in which they addressed how their teachings aligned with their philosophies (Yerrick, et al., 2005). Merely a few published studies exist for teacher candidates using digital picture to reflect on authentic, personalized teaching events (Crawford & Patterson, 2004; Sherin & Van Es, 2005; Yerrick, et al., 2005).

Reflection strategies being utilized for advancing pre-service teachers' reflectivity have included: journal writing (Spalding & Wilson, 2002); supervisory conferences (Zeichner & Liston, 1987); structured microteachings followed with reflective teaching journals (Sparks-Langer et al, 1991); multimedia cases (Hewitt et al., 2003); online discussions

(Whipp, 2003); peer observation conferences (Collier, 1999); portfolios (Jay & Johnson, 2002); critical incidents (Griffin, 2003); and the use of digital video technology (Calandra, et al., 2006).

3.2.4.2 Teaching journals

Journal writing has been used in numerous professional settings. For example, in business and education to empower reflective thinking and learning in professional and self-development. In teacher training, journal writing can enable teachers question and investigate what they do both inside and outside the classroom. In this manner, pre-service teachers intentionally exploring and analyzing their practice (Kallaith & Coghlan, 2001). It is also believed that journal writing in the classroom gives the pre-service teachers an instrument for maturing reflection competences and turn into a discipline for craming own experience (Kallaith & Coghlan, 2001).

As to Gil-Garcia and Cintron (2002), a reflective journal involves learners in self-evaluation, synergistic scrutinize, self-reflection and goal setting. Yet, reflective journals show a discrepancy in the way they serve the reflective learning. For instance, a journal may turn into a mutual exchange between a confounded lecturer, guide educator in the classroom, or collaborative journal writing with associates or it might be utilized for a personal route of analytical reflection and bolstered by the use of a structure for solitary appraisal at precise occasions all the way through the diary keeping system. Specifically, Richards and Farrell (2005) describe a teaching journal as a note pad in which a teacher composes customarily about teaching encounters and other dealings.

Farrell (2007) also views that writing consistently in a teaching journal can help teachers to illuminate their own reasoning, assess their very own philosophies and happenings, become more aware of their teaching preferences and be better ready to screen their doings. Throughout the process, pre-service teachers consider ways that journal writing can enable them think about their practice (Richards & Farrell, 2005). McDonough (1994) also likewise keeps up that teachers who write often about their teaching can turn out to be more mindful of everyday practices, fundamental bases, outcomes, and the decisions that need to take. Hence, it is progressively regarded as a well-known

activity and an important part in teacher training (Degago, 2007). Finally, researchers corroborate that teaching journals provide significant points of interest which capacitate pre-service teachers to discover, explore, and generate ideas in their learning process (Lee & Feng, 2007; Bolton, 2010).

When starting a teaching journal for the first time, the pre-service teacher initially ponders on an ongoing teaching practice or involvement in the classroom, positive or negative, that caused the teacher to pause and sense, and ask the accompanying inquires related to the incidence: “What happened before this occurrence? What happened after it? For what reason was this episode critical? What does this episode enlighten me concerning myself as a teacher?” Next, the pre-service teacher composes this up in a reflective teaching journal and keeps on expounding on it as he or she keeps teaching. Then, after each journal entry the teacher makes inquiries about what he or she has composed. After that, the pre-service teacher continues writing about the special theme, reviewing entries and looking for emerging patterns (Farrell, 2007). During the reflective process, the pre-service teacher interfaces, assesses and incorporates her or his insight into the substances of teaching. Some of the reflection journals identified by the teacher education scholars are presented as following:

(i) Reading response journal

One sort of the journals frequently significance in teacher instruction for proficient learning is the reader response journal. In this case, the learners read suggested content as composed content or view a film and afterwards record their responses into their journal. These reactions may then be utilized in various ways but usually, they are communicated at some stage with their instructor and often verbally with peers the end goal to make further essence from the content and to verbalize associations between recent information and what they definitely know (Kerka, 1996; Richards & Farrell, 2005). In addition, Kerka (1996) claims that composing a reading response journal is a basic part of information handling and that the student’s journal can turn into content in itself for later metacognitive learning and community knowledge building.

(ii) Double entry journal

Double entry journal involves a statement of setting or excerpt from a reading on the left hand side of the page and reflections along with the anticipated actions on the right side (Whitton, et al., 2004). This method is based on the four phase model of reflection, namely describe, inform, confront and reconstruct (Zeichner & Liston, 1985; Smyth, 1989; Whitton, et al., 2004). Teacher education researchers remind pre-service teachers that it is critical not to limit reflections to the theory/classroom interaction, but to do not hesitate to allude to related issues in the media too. They also recommend that reflection can be in the form of poetry, drama or music as long as it satisfies the prerequisites of critical examination and upcoming accomplishment (Whitton, et al., 2004).

(iii) Interactive journal

Maloney and Campbell-Evans (2002) have composed widely on the utilization of interactive journals in their work with pre-service teacher education and trust that the communication between journal writers and their crowd provide give chances for pre-service teachers to make commonsense hypothesis unequivocal. The relationship is creating between the lecturer as a trusted interested party in empowering and extending reflection and the pre-service teacher is a remarkable and important effect of interactive journal work, while the benefits of interactive journals are well entrenched in the literature. It is also found that pre-service teachers can even now form reflective aptitudes without concentrated remote input, depending on the open doors for self-examination frameworks and the initial reflective capabilities of the student (Bain, et al., 1999; Maloney & Campbell-Evans, 2002).

(iv) Dialogue journal

Dialogue journal is a way to deal with reflection that creates a culturally protected room where pre-service teachers can comprehend the personal sense of the conceptual and pedagogical understandings pertinent to education and local instruction and discuss their views and feelings with their lecturers and compose in their journals (Rigney, et al.,

2003). As it is discovered dialogue journal is used to help the way toward deconstructing and recreating how pre-service teachers recognize the indigenous history, local peoples and the provision of education to local students and communities. Therefore, the pre-service teachers ought to start to fit into place with the issue and the historical and existing enquiry of indigenous histories, indigenous education, the production of knowledge and notional keystones (Rigney, et al., 2003).

(v) Narrative journal

Teacher accounts are stories composed by and about teachers and can be used as the wellspring of story inquisition (Cole & Knowles, 2000). Narratives other than journal writing can render a rich comprehension of what happens in the brains of pre-service teachers as they built their reality of training. It is a more taught form of writing than journaling in that it has a structure and a focus, the purpose to convey a story. The spectators or pre-service teachers themselves write genuine tales about teaching that light up the truths, impasses and prizes (Cole & Knowles, 2000).

Autobiographical sketches, also called personal chronicles, are dedicated form of teacher accounts; these stories of a more private and exhaustive offer deep understanding of the past to reveal biased theories of teaching. When teachers expound their own accounts and how they reflect these have formed the creation of their principles, then they are able to see more obviously how communal and organizational powers past the classroom and school have had an impact. Scholars pushed the use of allegories to enable teachers to wind up mindful of their showings and develop alternative ways to consider about a topic. The reflection that happens in the inspection of individual teaching analogies involves reframing the focal point through which a teacher sees a disclosure (Bain, et al., 2002; Cole & Knowles, 2000).

Bain, et al. (2002) additionally express that narrative approach endows with chances for students to depict conclusions from their own encounters, consequently, making personal didactic standards. Reflecting on teacher description can yield bits of knowledge about inspirations for teacher actions, the intricacy of teaching and about teachers. Besides, teacher tales can be explicitly intended to be utilized as contextual

investigations with the unequivocal reason for thinking about an over case. Using a vehicle of case story composing on student teachers' teaching engagements, narrative journals helped pre- service teachers' move toward critical reflection.

(vi) Electronic dialogue journals and blogs

One relatively recent reflective instrument that supports interactive reflection is the online diary format called a blog. It is depicted that the weblog or blog as an educational vehicle can be utilized for the pre-service teachers to enable and urge them to end up increasingly expository in their teaching. Composing a blog can give out a large number of the needs of an exchange diary, yet obviously they have a lot bigger obscure audience (Williams & Jacobs, 2004). As indicated by Williams and Jacobs (2004), blogs challenge pre-service teachers to go up against their convictions and fundamentally examine how their perspective may be deciphered and reflected upon by their crowd. The blog is already gaining support in teacher education programmes in the areas where reflective practice is already established as a professional learning tool.

Proponents of this type of reflective tool have expounded about the employment of electronic journals in distance education and place significance on the help part of the journal for topographically segregated students once the additional troubles of access, equity and technical skill are tended to. As each of the above forms of reflection, the electronic discourse serves as critical tools for competency development in the smart teacher education setting (Kerka, 1996; Williams & Jacobs, 2004). Educators currently have a scope of composing instruments to promote reflective abilities and by differing their strategies from course to course; they can offer their students' extra profound learning encounters which will profit their university ponders as well as their prospect professional run through.

3.2.4.3 Practicum reflections

The emphasis on pre-service teachers' reflection is predominant during student teaching, practicum and other field-based experiences. An assortment of instructional exercises in teacher education programmes have been linked to enhanced

teacher reflection (Seng, 2001). For example, Zeichner and Liston (1985) studied the discourse between university supervisors and pre-service teachers during the supervision process; and they distinguished four types of discourse that represent increasingly complex and far reaching positions for thinking on teaching: describing, informing, confronting and reconstructing.

Journal entries for initial teachers are frequently in light of guided inquiries concerning teaching preparation from their instructors or tutors, important expert disclosures about teaching ambitions and methodologies and the necessitates of classroom learners are encouraged. As indicated by Gil-Garcia and Cintron (2002), examination and basic perceptions of pre-service teaching convictions are enhanced by journals and help them adapt the teaching practice. Kaminski (2003) found that keeping an intelligent diary about teaching and the learning comebacks during field assignment smooth the progress of the teaching of mathematics well beyond technical rationality levels.

On the other hand, research literature showed that to pre-service teachers, free reflection practice need to be promoted prior to contextualizing it within the pedagogical and curricular framework. It was also observed by pre-service teachers that initially free reflections- such as reflecting on art work, drama, music or literary pieces will be useful as far as securing and exhibiting reflective skills and techniques, where students can reflect freely or demonstrate pair or group reflections. However, for the pre-service teachers' practicum reflections need to be less specific and not narrowed down to certain areas and topics (Gil-Garcia & Cintron, 2002; Kaminski, 2003).

3.2.4.4 Group reflections

Group reflection is an insightful reflective device for teacher reflection (Priest & Sturgess, 2005). Accordingly, reflection in a team gives ample familiarity by empowering the practicum teacher to expose their own ideas to carefully examine in time. Collective reflection, whether formal or informal, gives a scholarly experience for pre-service teachers to build a learning community. Taylor and Head (1997) also describe a teacher development group as any type of co-operative and ongoing arrangement between two or more teachers to cooperate on their own personal and professional development.

A group of teachers working together can accomplish results that may not be feasible for an individual teacher working alone, in light of the fact that the group can generate more thoughts about classroom issues than can any one individual. Farrell (2007) names three types of teacher improvement gatherings: peer groups within a school, teacher groups that work outside the school and within a school district, and virtual groups that can be formed anywhere on the Internet (Taylor & Head, 1997).

Clarke (2004) illustrates the benefits of shared group discussion as a helpful type of expert reflection for the pre-service teachers to debrief and share their teaching experiences about the final year internship engagements. Furthermore, Clarke (2004) investigates the type and depth of reflection from both groups and found that the organized collegial sharing environment generated safe reflection on common teaching practice issues which brought about more prominent certainty of action amongst pre-service teachers. With respect to criticalness of group dialogue as methods of deep learning in a multifaceted context, it is found that deep casual dialogue provided the chance to significant, mind boggling, and unpretentious comprehension (Power, 2004). Thus, Farrell (2007) suggests that pre-service teachers meet up in teacher improvement groups to supplement each other's qualities and make up for one another's confinements.

3.2.4.5 Critical incident

Descriptions of high and low moments in pre-service teaching experiences, or details of significant incidents that emerge in their lives as teachers, furnish the impulse to grapple with problems and dilemmas turning into the reason for a critical investigation. By sharing critical incident responses, teachers come to understand that their individual stories have conventional characteristics and themes installed within them. They find out that their personal struggles are not quite the same as those practised by their companions (Tripp, 2012).

In spite of the fact that for the most conceived self-generated incident, a critical episode could likewise be a painstakingly chosen genuine precedent or contextual analysis of a

teaching predicament expected to serve as a springboard for reflection. Looking at a critical incident, it can be a valuable instrument for deepening the echelon of reflection. Writing about critical occurrences or dilemmas rather than typical everyday events promoted critical reflection in pre-service teachers (Tripp, 2012).

3.2.4.6 Portfolios

Portfolio is a collection of items assembled over a certain time frame to delineate different aspect of a person's work, professional growth and capabilities (Frederic, et al., 2000). Portfolios represent an approach to characterize, show, and store as evidence of a teacher's knowledge and abilities depends on numerous sources of attestation collected after some time in authentic contexts (Riggs & Sandlin, 2000; Frederic et al., 2000). Portfolios are also depicted as a gathering of organized professional curios that demonstrate amassed learning, capabilities and experience about teaching that is supported by critical reflection (Villegas-Reimers, 2003).

Accordingly, portfolios can be paper based or electronic and are viewed to be essential route for pre-service teachers to portray their higher level cognitive accepted wisdom and self-reflective growth upon graduation (Riggs & Sandlin, 2000; Frederic, et al., 2000). Portfolios reflected and integrated numerous current theoretical outlooks on teaching and learning such as constructivism, scaffolding, and peer coaching (McLaughlin & Vogt, 1998).

One of the qualities of a portfolio identified by educationists is that it allows student teachers to express what needs be (Riggs & Sandlin, 2000; Mohamed, 2011). Through a portfolio, they contend, pre-service teachers have an opportunity to be the point of convergence, work at their own pace, and cover substance of their decision. In this way, the learner is in charge and feels more esteemed. Portfolios urge pre-service teachers to accumulate in one place significant artefacts representing their professional development (Riggs & Sandlin, 2000). As per Mohamed (2011), reflective skills are procured bit by bit through maintaining a teaching journal, recording lessons, acquiring inputs through peer observation and through getting criticism from the student's journal which acts as a reflection forum.

Currently, portfolios have gained increasing support in education from students, teachers and school administrators for a variety of reasons. It is noticed that portfolio development has turned into a favourite tool of reflection being used in pre-service teacher training (Roe, et al., 2010). Portfolios appear to be preferred method of assessment for making decisions about teaching. Many teacher education programmes require prospective teachers to develop portfolios and to set them up for licensing or relicensing. The creation of portfolios and the e-portfolios as types of assessment and professional preparation is winding up more predominant in teacher education programmes. As a result, portfolios have been utilized to invigorate reflection in teacher education (Longayroux, et al., 2007; Roe, et al., 2010; Mohamed, 2011).

Portfolios were at first acquainted to address a variety of student appraisal concerns in regards to the authenticity of tasks, learning over time, and the application of knowledge. In parallel with teachers' utilization of portfolios, many educational institutions have started using them as a feature of their pre-service programmes with teachers in order to facilitate self-reflection, archive development on performance-based tasks, and promote a feeling of professional efficacy (Wheatley, 2002; Tucker, et al., 2003).

Bolin (1988) determined that there is a positive link between teachers' reflectivity and growth in their abilities to effect quality learning in their students. Henson (2001) also established teachers' self-efficacy and its significant relationship with teacher behaviours and student learning. Additionally, pre-service teachers' reflective teaching capability is connected with students' learning and emotional responses in classrooms (Akbari, et al., 2010).

A number of studies have been done to find out the relationships between the teacher's self-efficacy and reflective teaching capabilities (Bolin, 1988; Henson, 2001; Akbari, et al., 2010; Tuchman & Isaacs, 2011; Agei & Jaddi, 2013; Keshavarzi & Fuman, 2015; Latchanna & Daker, 2016). In this regards, Tuchman and Isaacs (2011) identified that reflective teaching efficacies could be affected by pre-service teachers' characteristics. This included, gender, students' achievement, and formal teacher educational training. However, this research discovered that gender of the pre-service teachers did not bring

a significant difference in their sense of efficacy for reflective teaching (Tuchman & Isaacs, 2011). Besides, Keshavarzi and Fuman (2015) revealed that gender have no influence on teacher's reflectivity.

Conversely, other researchers found that teachers' gender had effect on their reflective teaching abilities; and male participants seemed to be more reflective in their teaching capabilities than the female participants (Aghaei & Jadidi, 2013; Latchanna & Daker, 2016). Be that as it may, educational researches investigated the connection among reflectivity and pre-service teachers' teaching capacities and reasoned that this suspicion is proper, albeit, to some degree still untimely to propose that the more pre-service teachers reflect the more their teaching abilities will move forward; thus, teachers should do their best to improve their reflection with the guide of an improvement portfolio (Gipe & Richards, 1992; Lally, 2000; Mergler & Spooner-Lane, 2012).

In teaching, a portfolio is a general tool used to engage teachers and students in discussions about topics related to teaching and learning (Villegas-Reimers, 2003). Additionally, teaching portfolio is a purposeful collection of substantiation assembled by a teacher comprising of depictions, documents, precedents of good teaching, and teacher's considerations on their instructional practices.

There are three forms of teaching portfolios that are typically used in teacher education institutions (Zeichner & Wray, 2001): (1) A learning portfolio/a development portfolio (an accumulation of items that assist teachers to think about, and describe learning outcomes); (2) Credential/ an assessment portfolio (as a method for evaluating pre-service teacher's fitness and results); and (3) showcase portfolios/employment portfolios. According to Zeichner and Wray (2001), the variations in teaching portfolios originate from the different purposes that directed them. One common purpose of a teaching portfolio is to engage pre-service teachers' inquiry about their teaching and to document growth in teaching over time.

A development portfolio, which is also referred to as a learning portfolio, focuses on teacher's process of reflection when they compile a teaching portfolio. The second type

of portfolio, referred to as a credential portfolio or appraisal portfolio is used to determine whether pre-service teachers have exhibited some level of proficiency in a set of teaching standards that are increasingly being characterized at the state level or even at the national level. The last type of portfolio is one to assist the prospective teachers in preparing showcase portfolios/ employment portfolios which would represent a student's best work when they apply for teaching positions. These three forms of teaching portfolios are also referred to as evaluation, assessment and employment portfolios. Teachers use both their evaluation and employment portfolios mainly to discuss their best work. They are advised to do this so that their educational skills can be illustrated (Lally, 2000).

Although the reasons of building teaching portfolios fluctuate, a teaching portfolio ordinarily has three general qualities (Strijbos, et al., 2007). First, it has a competency-orientation. Competency-oriented instruction strategies coordinated with bunches of learning components, skills and states of mind require uncommonly adjusted appraisal techniques. Portfolio assessment is one such method and grants the indispensable evaluation of competencies. Second, the portfolio incorporates a cycle of action and reflection. With the end goal to gain learning from his or her own teaching performance, the student has to carry out teaching activities and then reflect on his or her performance and the achievements/behaviours of his or her students. Third, the portfolio uses a wide variety of media and different materials. In order to illustrate their competencies in a creative and customized way, students must make an all-round thought about the determination of media and materials, for example, text extracts, artefacts, representations, audio and video materials in some cases (Strijbos, et al., 2007).

Examples of artefacts frequently picked by pre-service teachers include a reflective explanation of their teaching and learning rationality, unit and lesson plans, student work and feedback, videotapes of their teaching, photographs of classroom display, reflective comments from parents, mentor teachers and peers, formal appraisals from university supervisors and self-evaluations throughout their course. Evidence of a professional journal is a fundamental part in any portfolio and can be included

unblemished as a way of demonstrating continuous professional reflective ability, or used specifically as desired (Strijbos, et al., 2007).

3.2.4.7 Peer and mentors' observations

A number of teacher training programmes make pre-service teachers to scrutinize peers' teachings for their mastery and excellence in teaching. In this way, the pre-service teachers acquire the knowledge, develop their competences and examine the teaching dispositions to superb actualize in the classroom (Villegas-Reimers, 2003). Observing beginning teachers is an essential coaching movement in order to enable pre-service teachers enhance their teaching (Jonson, 2008). Accordingly, observation in the pre-service teacher education gives chances for reflection to refine and improve teaching additionally different exercises. Hence, encouraging teaching observations involve learning as well as appraisal in initial teacher training.

Reflective abilities should embrace activities such as study teams and peer coaching in which pre-service teachers continuously inspect their practices including practices outside the teaching context. It is shown that pre-service teachers need to boost guided reflection through building up the pre-service teachers' capacity to reflect on their work and on their teaching. This takes place through involving the pre-service teachers in enquiry activities and furnishing them with guided reflection sessions (Posner, 2010).

Observation seems to assume an urgent call in the teacher improvement of all teachers, regardless of their experience (Book & Sikes, 1997; Anderson, et al., 2005; Posner, 2010). Anderson, et al. (2005) discovered that pre-service teachers found accommodating and important as far as learning particular pedagogical strategies and management skills and taking care specific teaching problems. It is also acknowledged as one of the paths for pre-service teachers to get some answers concerning teaching; and is typically conducted in initial teacher education (Villegas-Reimers, 2003). Observing an experienced teacher teaching has likewise been accredited widely to have contributed altogether in the preparation of new teachers to confront the challenges of the classrooms (Villegas-Reimers, 2003; Jonson, 2008).

In this regards, Kettle and Sellars (1996) studied the development of third-year teaching students. They analyzed the students' reflective writings and talked with them broadly about their reflections. They found that the utilization of peer reflective groups encouraged pre-service teachers to challenge existing theories and their own preconceived views of teaching; while modelling for them a collaborative style of professional development that would be helpful throughout their teaching careers. However, being watched is not constantly pleasant; it can be judgmental and cause disappointments. Thus, it is suggested that pre-service teachers, peers, and cooperating teachers should see observations with a more receptive outlook (Kettle & Sellars, 1996).

In spite of the way that there are blended impacts on observations, on observing cooperating teachers, and peers, impressive advantages are demonstrated in the literature (Kettle & Sellars, 1996; Villegas-Reimers, 2003; Jonson, 2008; Posner, 2010). These gains are, however, feasible and successful only when the objectives and motivations of observations in the teaching training programme are clearly characterized and comprehended.

3.2.4.8 Mentoring

Reflection is enhanced when mentoring or tutoring is given that enables teachers as learners to tap into their own realm of experiences, reflect on those experiences, and construct personal meaning to inform their developing practice. Reflection, especially critical reflection and self-reflection are unpredictable develops and requiring deliberately constructed intercession or affiliation. An extensive variety of definitions has emerged in different structures and setting in the literature. Mentoring has been additionally used in teacher education (Hudson, 2004; Zeegers, 2005; Jones, 2006; Granser, 2006).

In education, the implications of mentoring are a remark about the relationships associated with coaching, the characteristics of the guides, support, benefits of mentoring and the reflective practitioner (Rowley, 1999; Britzman, 2000; Cherin, 2007;

Scalon, 2008). There appears to be no single, clear, commonly accepted meaning of mentoring as it is hard to distinguish and conceptualize.

However, as indicated by Anderson and Shannon (1988:40), mentoring is:

... a nurturing process in which skilled or more experienced individual, serving as a role model, teacher, sponsors, encourages, counsels, and befriends a less skilled or less experienced person for the purpose of promoting the latter's professional and/or personal development. Mentoring functions are carried out within the context of ongoing, carrying relationships between the mentor and the protégé.

A number of mentoring models have also been identified in education. Some of them are: Apprenticeship, Competence- Based, and Reflective mentoring models (Furlong & Maynard, 1995). Reflective mentoring has been widely used in teacher education and is extremely influential in enhancing teaching and learning process, especially in the supervision of pre-service teachers. In this case, cooperating teachers have critical roles in the advancement of reflective practitioners for what's to come. Thus, the cooperating teacher needs to perform the role of reflective model to assist pre-service teacher to practice being a reflective teacher.

The roles of the reflective mentor sometimes, seen as a coach, is essentially one of the modelling reflecting and helping the pre-service teacher know-how reflection in a scientific way, making reflections more meaningful and analytical at the same time challenging and encouraging them to search for all options, augmenting their perspective. This approach involves planning, implementing, reflecting, and evaluating. It is demonstrated that intellectual coaching can positively impact self-confidence, classroom management skills, teaching styles, self-awareness and instructional dialogues with peers (Britzman, 2000; Veenman & Densen, 2001; Ross, 2002).

The viable mentor is a sponsor, an engineer of skills and intellects, a guide and exemplar, a critical companion, a role and instructional model, a co-enquirer, a teacher,

coach, advisor, counsellor, a nurturer (Anderson & Shannon, 1988; Hall, et al., 2008). Therefore, teacher mentors need to see their role as one of supporting the pre-service teachers' growth in practice and as being instrumental in guiding beginning teachers as they build their knowledge, interactions and skills within the complex world of teaching (Scherer, 1999; Hall, et al., 2008).

In the other words, Hine (2000) suggests that the prime benefits of a mentoring relationship are the development of more self-reflection, meta-cognitively aware and self-paced students. She guarantees that by talking, sharing discussion and problem solving and jointly constructing knowledge and meaning, both the mentors and the pre-service teachers are figuring out how to reflect in ways that will eventually transform their teaching

Coach-thinking and peer involvement are huge components for effective teacher reflections. In a study of how pre-service teachers develop the proficiencies necessary for reflection, these two components were highlighted during their field engagements (Ferraro, 2000). Ferraro (2000) also explores the role of the mentor as a reasoning mentor. Thus, mentors can most adequately coach pre-service teachers by using students' personal histories, dialogue journals, and small- and large-group discussions about their experiences to ponder and improve enhance reflections.

According to Roe, et al. (2010), coaching is a sensible and precise way to deal with ongoing teacher enhancement through focused reflection on teaching doubts. Moreover, Walkington (2005) viewed reflective practice as a facilitated and modelled by mentor teachers who exhibit the skills of critical questioning. One of the means to encourage reflection is applicable to the mentor's role as a thinking-coach. In this respect, shortcomings can be dealt in light of the mentors' absence of provision of intellectual tools as means to acquire reflective abilities for pre-service teachers (Boud & Walker, 1998). However, research studies conducted with pre-service teachers revealed that pre-service teachers were not offered chances to exchange and talk about concerns, fears, stresses and areas of improvement of their teaching both with the peers and mentors. Consequently, the pre-service teachers' reflections are affected (Billett, 2003; Sahin-Taskin, 2006; McCorman & West, 2006).

According to Von Glasersfeld (1998), constructivism should possibly guide mentors in how to assist pre-service teachers construct instructional and pedagogical knowledge. Since, constructivism has potential towards developing teaching and mentoring practices by building friendly relations among the cooperating teachers and the pre-service teachers (Lai, 2005). Thus, Yost (2002) suggests that teacher mentors need to be aware of their teaching and duties they have to their pre-service teachers. In other investigations, there are reports that mentoring has constrained teacher mentors to be reflective practitioners regarding of their own beliefs about teaching, students, learning, and teaching as a career and has also approved the experience they have gained over years (Huling & Resta, 2001).

Teacher mentors who are reflective practitioners discover they are more focused in their mentoring relationship (Tomlinson, 1995; Cherian, 2007; Scalon, 2008). One of the best ways for a mentor to help create pre-service teachers' teaching capabilities is to demonstrate how a reflective method to teaching, self- assessment, and implementing of new ideas (Denmark & Podsen, 2000). This leads to both the pre-service teacher and the cooperating teacher to reflect and analyse their successes and failures to improve their effectiveness.

In this investigation, mentoring is seen as the support given by the experienced teacher mentors to pre-service teachers with particular roles and mentoring capacities as portrayed in the reflective teacher education curriculum (MoE, 2013). Reflections are viewed as an important component of a successful coaching process. Engaging in reflection is supposedly have numerous advantages for both the pre-service teacher and cooperating teacher and ought to be consolidated into the teaching preparation programme. In order for the teacher mentors to uncover their deepest contemplations and emotions, the tutor must endeavour not be judgemental and stay nonpartisan in responding pre-service teachers' reflections.

3.2.4.9 Action research

Reflection is at the core of certain research paradigms which focus on practitioners learning about the art and craft of their profession through personal, authentic, and lived experiences (Whitehead, 1993; Smith, 2005). Reflection has been explicitly connected to action research which rejects the thoughtless use of standardised practices over all contexts, and instead advocates the utilization of contextually relevant procedures detailed by inquiring and resourceful practitioners (Smith, 2005). Action research involves examination of the values held and the practices engaged in while carrying out an activity— in this case, teaching (McFee, 1993). As McFee (1993) points out that it is teacher's research into a specific kind of practice in which there is a craft-knowledge based on a particular model of knowledge and research with action as an outcome. This knowledge is practical knowledge. Besides, Wallace (1991) maintains that action research can have a specific and quick result which can be directly related to practice in the teacher's own unique situation and is an extension of the typical reflection of many teachers, but it is slightly more thorough and might conceivably lead to more powerful outcomes.

In this study, action research provides the methods of reflection for the pre-service teachers into their teaching and learning encounters in order to enhance the effectiveness of their own instruction. As professional knowledge and judgment can be developed through reflection and further development, while critical reflection supported by practitioner's research can provide the means by which the quality of teaching and learning in the classroom can be assessed as a prelude to improvement (Robson, 2002; Bartlett & Leask, 2005; Francis & Cowman, 2009).

According to Robson (2002), action research is orientated towards realizing change often including respondents in the process of investigation. Pre-service teachers are actively involved with the circumstance or phenomenon being examined. McKernan (1996) also refers to action research as *grounded curriculum theory* in that theories are not validated autonomously of training and then connected to curriculum...they are approved through reflection.

Scholars contend action research enables teachers by empowering through the control of the procedure of progress, and that is a great tool of teacher training and for logical, credible knowledge, authentic insight, and intelligent leadership of all critical expertises of reflection. The literature argues that action research has, since its inception, played a pivotal role to improve the quality of teacher education and school-based curricular development (Stringer, 2007; Mc Niff & Whitehead, 2009). Hence, action research can be designed to engage the pre-service in reflection. As action research acts as a powerful agent to socialize pre-service teachers as they step up with regards to tackling a reflection issue, collaborate and interact with experts that transform pre-service candidates into more confident and reflective classroom experts (Mc Niff & Whitehead, 2009).

This perspective strengthens the line of contention progressed by Schön (1987) and Van Manen (1977) of how pre-service teachers come to build up their procedural knowing and level of reflections. Schön (1987) contended that action research as a tool for reflection can be characterized as the capacity of the pre-service teacher to reflect teaching, while the teaching is happening. Since teaching competences can be enhanced considerably more than having a technical mastery of topic; rather, a more profound knowing and level of reasoning (Schön, 1987). Reflection on action utilizes pedagogical approaches without associating them to the general theory or guideline based teaching. Reflection is viewed as important activity to fulfil the components of quality teaching, to be proof based teaching method (Schön, 1987). As a result, the practitioner understands that additional learning occurs through action and has a high degree of synthesis and congruence between planning, action and reflection in classroom (Schön, 1987; Smith, 2005).

Farrell (2007) recommends the reflection cycle that pre-service teachers can use for action research projects as:

- Identify an issue.
- Review the literature on the issue and make inquiries to narrow the core interest.
- Choose data to be collected and a strategy for data collection.

- Collect, analyze, and interpret the data selected.
- Develop, implement, and monitor an action plan.

From the above discourses, it is understood that teacher education programmes utilize action research to give pre-service teachers the opportunity to take part in classroom activity and reflecting abilities that resemble the actions by experienced teachers. It is illustrated that action research is one of the tools for teacher reflection. Moreover, the literature review indicated that action research as recognized method in education by which pre-service teachers use to reflect on the teaching and learning process in order to end up more informed and intelligent teachers about the teaching episodes.

Furthermore, the review demonstrated that action research is a ground-breaking mechanism to encourage critical instructional skills and transform pre-service teachers into reflective teaching professionals. In the other words, the literature reviews explored reflection and demonstrate the key reflective perspectives used to assess pre-service teachers' development of reflective capabilities. Nonetheless, it is underscored that in order to progress and move from one level then onto the next, the pre-service teachers must participate in action research. The action research process gives the pre-service teachers the opportunity to take membership and inventiveness to a relevant reflective issue that extended their teaching knowledge and improve their instructional dispositions. In the other words, action research explicitly empowers pre-service teachers to take charge of the research situation and that responsibility was in accordance with the real world behaviour of expert teachers (Koshy, 2005; Schoen, 2007; Hagevik, et al., 2012).

In sum, though, there exists a wide array of ways to foster reflection, as examined early, their utility and by and large effectiveness differs. Accordingly, these strategies fall into four gross classifications:

1. Action research projects.
2. Case studies of students, teachers, classrooms, and schools.
3. Microteaching.
4. Structured curriculum tasks.

This section delineated a portion of the tools pre-service teachers can use to enhance critical and in-depth reflection. It is also indicated that there are strengths and weaknesses attached to the reflective instruments and means. Subsequently, in order to promote teacher' reflection, these instruments should be equally viewed as effective and gainful. Moreover, from the above section, we can view reflection as a self-evaluation tool in terms of tracing weaknesses and strengths; being critical about the teaching experience to improve and overcome pedagogical mistakes for re-teaching. Thus, pre-service teachers should be taught for designing reflective skills courses through which the practice of various levels of reflection such as technical, practical, critical reflection are enhanced; and time should be allocated for both reflection-in-action and reflection-for-action.

3.2.5 Barriers to teacher reflection

The study of reflective teaching is critically important and substantive research has been completed in Education. The studies have examined factors that influence decision-making and several characteristics to the quality of reflection, including training and experiences with reflective teaching (Loughran, 2002; Russo & Ford, 2006). Be that as it may, Loughran (2002) viewed reflection as a difficult process, since it disrupts practitioners' underestimated mind-sets and teaching temperaments. Although, reflection is not the same as retrospection or justification of doubts, oddity is triggered.

As a result, reflection is argued to be double-loop learning that could be impeded by protective thinking, which is experienced by the teachers when attempting to avoid feelings of humiliation, incompetent, vulnerable, or when our egos are threatened. Notably, it is often seen as a personal trait, instead of an open practice that can be changed and developed (Dinkelman, 2003). Hence, reflection may involve personal risks, since questioning teaching may also question sensitive convictions, values, and emotions (Dinkelman, 2003).

A few hindrances challenge reflection (Leavitt, in Seng, 2001; Russo & Ford, 2006). The possible barriers to teacher reflection include:

- Time commitment.
- Lack of awareness about the motivation behind reflection.
- Fear of judgement and criticism.
- Fear that the new methodology might be less successful than the current one.
- Defensive reasoning.
- Fear of professional arrogance.
- Lack of feedbacks and professional support
- Belief that teaching is a personal attribute, not something to be produced.
- Threats to sensitive beliefs, values and feelings.
- Potential danger to teaching identities.

In this case, an exploration by Hourani (2013:21-25) on the impressions of the pre-service teachers had about reflection, their preparedness to end up reflective practitioners and the constraints and impediments that frustrated pre-service teachers from reflecting on their teaching revealed the different confinements and requirements to reflection. This typified: language barrier, multi-layered tasks, nature and dimension of reflection, lack of reflection abilities, absence of post action plan, emotional barrier, and external locus of control and socio-cultural context of learning. However, the study indicated that some of these impediments and imitations overlapped.

The details of the investigation are presented underneath; which will be utilized later to make further analysis and comparisons of the practice within the context of the Ethiopian pre-service teacher training.

(i) Language hindrances

For a non-native English speaker, pre-service teachers viewed language as a constraint to their reflection capability. Accordingly, the language barrier was ordered into: (a) expressive composition, (b) word constraint, (c) language construction, and (d) language impasse. These classifications intertwined in some cases; nevertheless, they were conveyed by pre-service teachers as distinct categories supporting language barrier.

(a) Expressive writing

Pre-service teachers expressed that they confronted expressive writing difficulties and inability to express thoughts in English-writing, since they couldn't locate the proper vocabulary. In this manner, the pre-service teachers' reflections were off task and ideas were distorted and communicated in accurately.

(b) Word constraint

It was noticeable that word restrain compelled pre-service teachers' reflections, as their reflections couldn't be concise and focused. As a result, reflections ended up shallow.

(c) Language structure

With respect to language structure, it was noticed that pre-service teachers knew about their basic and grammatical blunders; the correctness of the language became a need over the themes should have been pondered.

(d) Language predicament

Notwithstanding the previously mentioned language obstructions, pre-service teachers were gotten in a difficult situation. They could neither find the appropriate jargon to express their ideas, since they have limited English vocabulary, nor would they be able to compose their reflection in their native language, because of the way that they weren't equipped with the instructional terminologies and theories; so they were lost between two languages.

(ii) Difficulties in fulfilling multi-layered tasks: linking to speculations and giving proofs

Pre-service teachers appeared to struggle to perform a multi-layered undertaking. Because, it was educationally proper to request them connect theory to practice; nevertheless, in certain instances they seemed to fail to do so genuinely and effectively.

This made them restrictive to reflect and link to theories simultaneously, as covering two dimensions at the same time distracts them from reflection: linking to theory becomes the priority rather than focusing on reflection.

(iii) Nature and dimension of reflection

Though it is controversial whether reflection should be in-action or post-action, pre-service teachers concurred that reflection in-action would enable them reflect thoroughly and meticulously. As a result, they were found constantly reflect inevitably, after the action and not amid otherwise they would overlook what they did and what they observed, but they needed to reflect immediately or video tape or voice records their actions. Besides, the pre-service teachers indicated that time allocated for in-action-reflection is not scheduled within the practicum and internship structure.

(iv) Lack of reflection abilities

Reflection fuses both writing and meta-cognitive skills. Pre-service teachers elaborated the absence of teaching meta-cognitive reflective skills are a missing part in their training. It is confirmed this fact by indicating that only one-hour reflection workshop (before practicum) was offered during their training; though, reflection tasks were integrated in assignments prior to this workshop. Consequently, the pre-service teachers' voiced learning how to write a reflection and offer precedents of reflective writing in a broad manner before teaching practices.

(v) The absence of post development plan

The ultimate goal behind reflection is to improve and build up the teaching practice. The mentor's-feedback is one necessary element in reflection. Accordingly, a professional improvement plan dialogued, constructed and imparted to pre-service teachers. Nevertheless, pre-service teachers expressed absence of a professional plan and continuity to monitor them in-practice progress. This is shown that some students did not like to reflect; in light of the fact that enhancing or creating them professionally without

the tutors' coaching was beyond them. Subsequently, reflecting their teaching engagements was aimless and inconsequential.

(vi) Emotional barrier

An emotional factor has been related with the restrictions. Pre-service teachers portrayed fears from reflection tasks. The pre-service teachers also described the whole enthusiastic hardships they faced as they think they are right and they cannot see their inadequacies and the areas requiring improvement, they are bashful to reflect because of self-criticism is hard; this leads to a lack of transparency, they are worried to lose self-confidence due to realizing their weaknesses, reflection impacts their confidence adversely; thus, they are embarrassed in case someone reads their pitfalls, focusing on their weaknesses is distressful and unpleasant, pondering on mistakes is baffling, especially when reflecting on a prepared lesson, and they encounter unscrupulousness and ingenuity in reflections due to the propensity for neglecting their errors as a self-preservation mechanism.

(vii) External locus of control

In some cases, the pre-service teachers practiced the blame game. They perceived the loops in the system and the gaps installed in the frail opportunities and instruments given for reflection at the centre of their intelligent insufficiencies. Accordingly, they fault on the institutional system, school administration and college and school mentors, for their reflective shortcomings.

(viii) Socio-cultural context of reflection

The socio-cultural context of reflection spins around whether the theories instructed at their teacher education institutions are contextualized within the pre-service teachers' teaching observations and practices at the practicum schools. A dilemma was experienced as a result of the worldwide speculations taught at their college; it includes the educational and pedagogical theories developing as a result of the pre-service teachers' theoretical preparations. Besides, three dimensions highlighted the socio-

cultural setting leading to perplexity on the reflection front: (a) inconsistencies between theories and practice, (b) context of upbringing, and (c) context of learning.

(a) Inconsistencies between theories and practice

In light of the constraints caused by the context of learning theories, pre-service teachers clarified the vicious circle they are gotten in. During their observations and teachings, they experienced reflective content that emerged from natural situations and local-socio-cultural context of teaching-learning that doesn't match the global prospectus, typifying the Western theories. Nevertheless, pre-service teachers still expected to link their reflections to the Western theories shrouded in the coursework. As a result, pre-service teachers' reflections become fake and superfluous to the setting of teaching- learning in the institution, which nullified the point.

(b) Context of upbringing

Concerning the context of childhood as a restriction for a reflective learning and teaching, the pre-service teachers feel the community affected their reflections. In this research review, the pre-service teachers communicated that they are in non-reflective community in which reflection is not established in their norms; reflection is not practiced at home and is not part of their upbringing. As a result, pre-service teachers faced trouble to reflect on their teaching. Additionally, the pre-service teachers were not brought up to see their mistakes or admit them, so their reflections were not authentic or transparent. Furthermore, the pre-service teachers feel non- critical thinkers; as the schools did not give them the opportunity to reflect or assess their incidences.

(c) Context of learning

The context of learning was another area triggering limitations, as pre-service teachers noticed that they faced trouble in analyzing their weaknesses. This is a result of absence of critical incidences from the lack of the culture of reading, generally speaking and specifically speaking in relation to their specialization domain. Subsequently, the

pre-service teachers viewed lack of reading made them superficial; and impacted their reflection.

3.3 UNDERSTANDING REFLECTIVE PRACTICE

This section is an articulation of the understanding of reflective practice. As part of this enunciation, the conceptualizations of reflective practice are discussed with regards to the essence, traditions, and models of reflective practices

3.3.1 Meaning and nature of reflective practice

It has been difficult to achieve consensus on a meaning of reflection and on which reflective practices advance teacher development and enhanced classroom practices (Farrell, 2007). Still, reflection and reflective practice are frequently noted in the general education literature and are progressively portrayed essential characteristics of skilful teacher professionals who are set up to deal with teaching complexities (Dewey, 1933; Boud, et al., 1985; Schön, 1987). Furthermore, the term reflective practice has had a long presence in instruction from as early as Dewey in 1933. He was the first to expound on investigation of experience, interaction, and reflection. There have been also broad writings on reflective practice for learning (Schön, 1983; Brookfield, 1998; Gibbs, 1988; Johns, 2000; Rolfe, et al., 2001; Kolb 1984; Davies; 2012).

Reflective practice is an integral part of teacher training. It is used at both the pre-service and in-service levels of teaching programmes (Sellars, 2014). Recently, formal necessities for student teachers to give evidence of reflective practice are becoming part of teachers licensing and revalidation processes (MoE, 2009). Henceforth, the utilization of reflective practice in teacher preparation depends on the belief that teachers can improve their own teaching by deliberately and systematically thinking about teaching and learning experiences (Farrell, 2007).

Reflective teaching, reflective thinking, reflective inquiry, reflection, and reflective practice are frequently utilized interchangeably in the literature, although there are slight distinctions among them (Dewey, 1933; Grimmatt, et al., 1990; LaBoskey, 1993). Terms

associated with reflective practice are: reflective thinking (Dewey, 1933); teacher as researcher (Stenhouse, 1975); professional practice (Schön, 1987); experiential learning (Kolb, 1984); reflective thinking (Sparks-Langer & Colton, 1991); reflective teaching (Valli, 1992); and reflective inquiry (LaBoskey, 1993). These terms have been used in pre-service teacher training and classroom contexts based on the supposition that obtaining skills related with reflective practice should facilitate pre-service teachers toward becoming more successful professionals.

Researchers in the field of instructional research view reflective practice in many ways: as a dialogue of reasoning and doing through which one becomes more talented (Schön, 1987), a process that enables teachers to consider what happened, why it occurred, and what else could have been done to achieve the goals (Cruickshank & Applegate, 1981), an inquiry approach that includes a personal persistent to continuous improvement (York-Barr, et al., 2006), the act of analyzing one's activities, decisions, or products by concentrating on pre-service teacher's procedure for accomplishing them (Killion & Todnem, 1991), a critical, questioning orientation and a profound promise to the disclosure and examination of information concerning the nature of an expert's planned activity (Bright, 1996), a willingness to acknowledge obligation regarding one's professional practice (Ross, 1990), a systematic and thorough information gathering procedure enriched by discourse and cooperative exertion (Osterman & Kottkamp, 2004), the capacity to think innovatively, imaginatively and, eventually, self-critically about classroom practice (Lasley, 1992), and an ongoing process of examining and refining practice, variously focused on the personal, pedagogical, curricular, intellectual, societal, and/or ethical settings related with professional work (Cole & Knowles, 2000).

From the above discussions, reflective practice in teacher education refers to the process of the teacher contemplating her or his own teaching techniques and determining what works best for the students. It connects the thought of the moral outcomes of classroom methodologies on students (Larrivee, 2000). It involves thoughtfully thinking about teacher's experiences in applying knowledge to practice while being trained by experienced experts in the discipline (Schön, 1996). Hence, the use of reflective practice for teachers is that as teaching and learning is complex, and

there is not one right approach, reflecting on different adaptations of reflective practices, and reshaping past and current experiences will lead to an improvement in teaching practices (Leitch & Day, 2000). Also, it is maintained that reflective practice moves teachers from their insight base of distinct skills to a phase in their careers where they can modify their skills to suit specific settings and circumstances and in the long run, to invent new techniques (Leitch & Day, 2000).

3.3.2 Traditions of reflective practice in teacher education

Reflective teacher education has influenced by traditions for reflective teaching practice. Understandings of these traditions make reflective practices in form. The traditions have been used in most teacher education programmes in the world. They have been the bases for effective implementations of reflective practices. Zeichner and Liston (1996) recognize five unique traditions of reflective practice to develop reflective practice in initial teacher education: *generic, academic, social efficiency, developmental* and *social re-constructionist*. As portrayed by Zeichner and Liston (1996), this framework has been utilized in different types of teacher reflection in order to modify the practices within the institutions. Each tradition emphasises the underlying supposition about the aims of education. A brief discussion of these traditions to demonstrate how the traditions shape the reflective practice within teacher education is given below.

3.3.2.1 Generic

This tradition underscores reflective practice as central to instructing in teacher training without a specific focus on the content, quality, or setting of reflection, when a teacher merely portrays the situation in the classroom. In short, generic reflection is considering about teaching and students.

3.3.2.2 Academic

This tradition stresses role of the liberal art and disciplinary knowledge in teacher education. It emphasizes the teacher's job as a scholar and subject matter knowledge to advance students' understanding. The reflective practice within the academic

tradition emphasizes the teacher's deliberations about subject matter and its transformation. This orientation prioritizes what content is to be taught and how it is to be taught and the standards for assessing the sufficiency of instruction emerge fundamentally from the scholarly disciplines

3.3.2.3 Social efficiency

This tradition underlines the knowledge base derived from the scientific study of teaching within the initial teacher education curriculum and has been translated in two distinct ways (Feiman-Nemser, 1990). First, the *technological* version centres around showing pre-service teachers the competencies and skills related with desirable students' outcomes. This convention characterizes reflection as a mind-set about instructional issues that involves the capacity to make logical decisions and to assume accountability for those choices. Second, the *principles of procedure* version focus on teaching pre-service teachers the teaching skills for decision-making and critical thinking.

In this regards, the model of *reflective teaching* exhibits the utilization of pedagogical standards to specific situations and the insightful scrutiny of teaching scenes. This orientation organizes reflection in terms of creating pre-service teachers' ability to practice judgement and the accentuation is plainly on the wise utilization of generic teaching procedures that have been recommended by research (Cruickshank, 1987; Zeichner & Tabachnik, 1991).

3.3.2.4 Developmental

This tradition emphasizes that the natural development of the learner gives the premise for decisions concerning what ought to be taught and how it should be instructed. *Teacher as naturalist*, *teacher as researcher*, and *teacher as artist* are metaphors with this convention (Perrone, 1989). Teacher as naturalist refers to classroom practice which constructs the curriculum and environment to accommodate the patterns of learner growth and aspirations. Significance is appended to close observation and the investigation of a learner's conduct in the classroom. Teacher as researcher alludes to

an experimental approach toward practice which urges teachers to initiate and maintain enquiries about the learning of particular pupils, to guide and inform practice in their very own classrooms. Teacher as artist refers to the development of energizing and stimulating classrooms to engage teachers who are creative and fully engaged in their own learning. This orientation prioritises reflection as far as drawing in learners with surprises and then looking to comprehend the sense they are making from their commitment (Perrone, 1989; Zeichner & Tabachnik, 1991; Zeichner & Liston, 1996).

3.3.2.5 Social Reconstructionist

This tradition considers schooling and initial teacher education are vital determinants for the making of a more just and conscious society. This point of view organizes reflection in terms of how pre-service teachers' activities and teaching influence the status quo, both inside the school and society. In this regards, Valli (1992) contends that schools as social institutions help reproduce a society based on unjust class, race, and gender relations and that teachers have a moral obligation to reflect on and change their own practices and school structures when these propagate such arrangements.

This tradition has three central strands. The first encourages teachers to focus their attention both inwardly at their own practice and outwardly at the social conditions wherein these practices are situated (Carr & Kemmis, 1986). The second advocates a democratic and emancipatory force as teachers focus their reflections on issues related to inequality and injustice, in the context of their own classroom, school and society. The third demonstrates a commitment to reflection as a communal activity and seeks to create communities of learning where teachers can support and sustain each other (Zeichner & Tabachnik, 1991; Zeichner & Liston, 1996).

The five conventions offer a scholastic context for the reflective practice in teacher education programme. The orientations when taken together provide a structure of the growth of teacher education and a rational conceptual setting of the reflective practice that is now being implemented. An investigation of models to teacher reflection is also important to construct a reflective teaching practice that is in agreement with the conceptual context and be able to enhance pre-service teachers' reflections.

3.3.3 Models of reflective practice

The idea of reflective practice focuses on the concept of lifelong learning in which a teacher analyses his/her experiences in order to learn from them. Additionally, reflective practice is used to facilitate self-regulating experts, who are continuously involved in the reflection of incidences they encounter in the teaching and learning process. Numerous models of reflective practices exist and are used to gain lessons out of teaching encounters. In this part, relevant models of reflective practices are examined.

3.3.3.1 Kolb's reflective model

Kolb's reflective model highlights the concept of experiential learning and is centred on the transformation of information into knowledge. Figure 3.1 represents the schematic portrayals of the Kolb's reflective model.

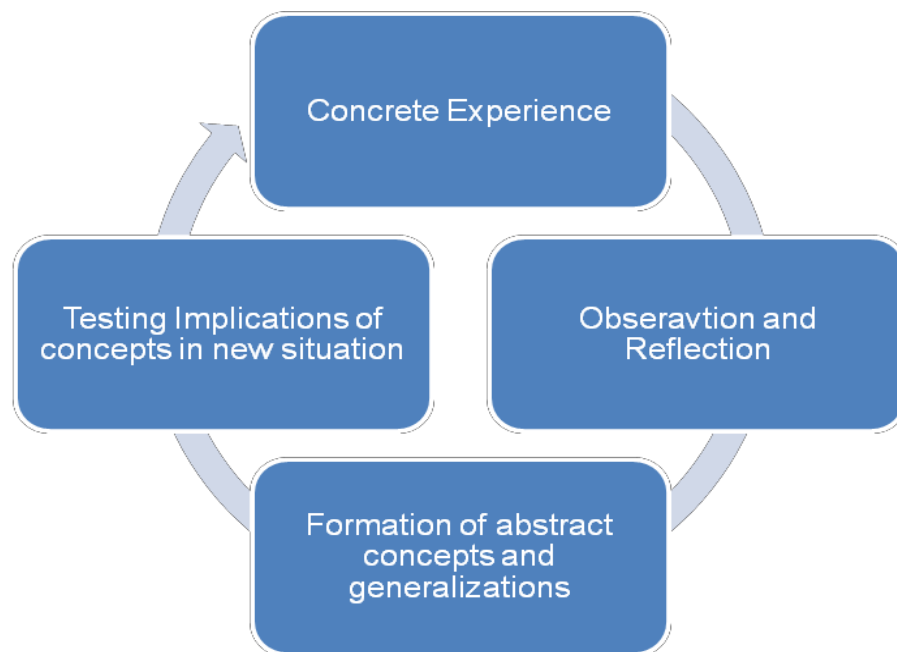


Figure 3.1: Kolb's Reflective Model (Kolb, 1984)

According to Kolb's reflective model, reflection happens after the situation has occurred; it involves a practitioner reflecting on the experience and gaining a general understanding of the ideas encountered amid the experience, afterwards testing these

general understandings on a new situation. In this way, the knowledge that is procured from a situation is consistently applied and reapplied expanding on a practitioner's prior experiences and knowledge. Creating experience-based learning and developing higher order thinking skills are crucial elements of a reflective teacher education programme. Since this study is concerned with how practice-based learning and reflective skills are incorporated into the teacher training, this model helps outline how reflective practices achieve this notion.

3.3.3.2 Gibbs reflective cycle

Gibb's reflective model is one of the reflective models being used to boost reflective practitioners' reflectivity. Figure 3.2 presents Gibb's model of reflection.

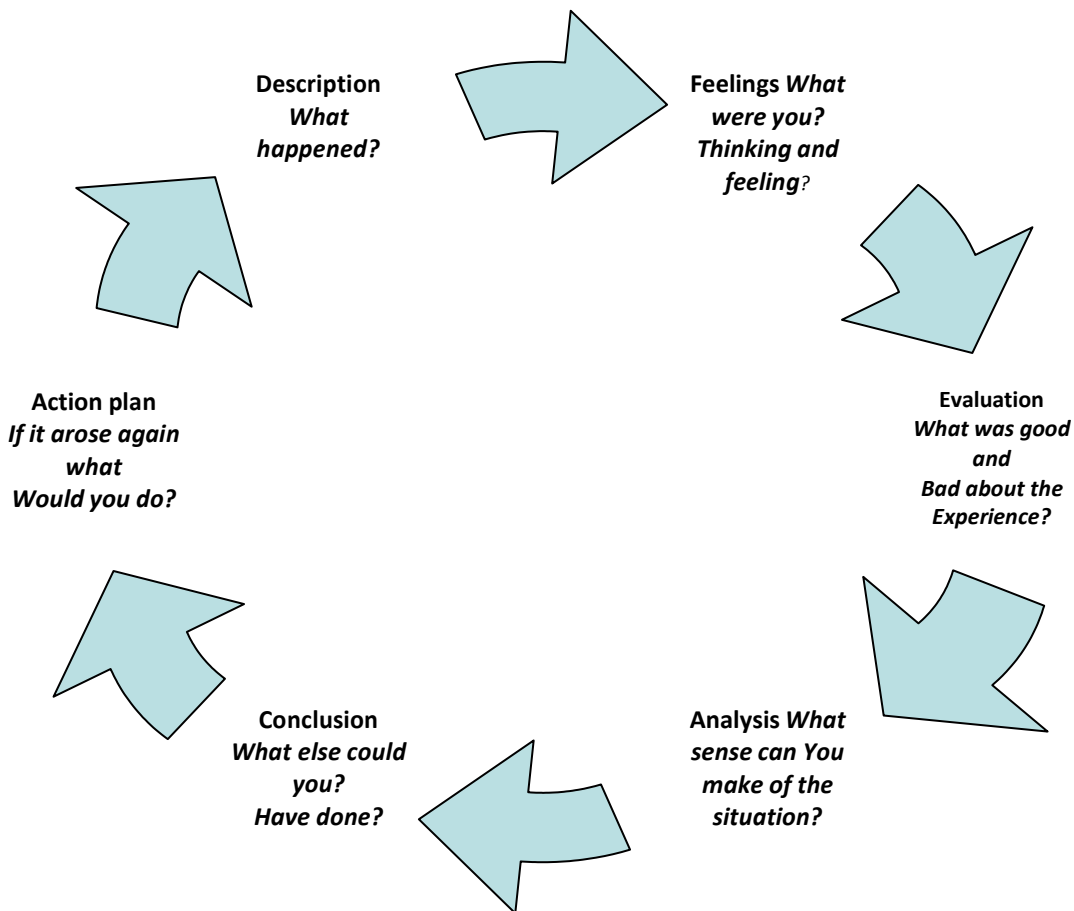


Figure 3.2: Gibb's model of reflection (Gibbs, 1988)

Gibbs (1988) reflective cycle is quite easy and urges a clear delineation of the circumstance, examination of emotions, evaluation of the encounters, analysis to understand the experience, conclusion where other are considered and reflection upon experience to examine what professional would do if the situation happened once more. This model can be utilized for practitioner's reflective writing, but if practitioners are using it at a critical or contextual level, she/he needs to adjust the cycle the goal that analyses filter through each step. Gibbs' suggestions are often cited as Gibb's reflective cycle and are rearranged into the following six distinct stages:

- Description
- Feelings
- Evaluation
- Analysis
- Conclusions
- Action plan.

Gibb's aforementioned reflective model for reflective practice implementation serves as a guide for educators interested in instituting a reflective initiative. In addition, this model could serve as a model or template for teacher educators interested in creating their own reflective agenda in order to smooth the progress of pre-service teachers' reflective growth.

3.3.3.3 Brookfield's model for reflection

Critically reflective practitioners continually explore their suppositions by observing practice through four complimentary lenses (Brookfield, 1998). These lenses are the autobiography of learners, the learner's eyes the colleague's perception and theoretical, philosophical and research literature. Reviewing practice through these lenses makes professionals to distinguish domineering presumptions that we believe are in our very own best advantages in any case neutralize us over the long haul. To become critically reflective, Brookfield thinks that the four focal points expressed above will reflect back to us obvious and distinctively featured picture of which we are and what we do.

Lens 1: our autobiography as a learner is a vital source of knowledge into practice. As we converse one other about critical events in our practice, we begin to understand that individual crises are normally collectively experienced dilemmas. Analysing our autobiographies enables us to draw insight and implications for practice on a deep intuitive emotional level.

Lens 2: Our learners' eyes as mirrors used to see ourselves through the learners' eyes; and we find that learners are interpreting our actions in the way that we mean them. But regularly we are amazed by the diversity of meanings people read into our words and actions. A cardinal guideline of seeing ourselves through the learners' eyes is guaranteeing the anonymity of their critical opinions. Seeing our practice through learner's eyes, help teach more responsively.

Lens 3: Our colleagues' experiences serve as critical mirrors reflecting back to us images of our actions. Conversing to colleagues about issues and picking up their point expands our possibility of discovering some information that can help our situation.

Lens 4: Theoretical literature serves to examine our teaching outlooks with the previously established structure of teaching and learning. In this case, theory can help us organize our practices by lightning up the general components of what we believe are particular incidences.

All the reflective lenses highlighted by Brookfield are integral towards the implementation of a successful reflective practice.

3.3.3.4 John's model for structured reflection

John's model for structured reflection can be used as a channel for examination of a critical incidence or general teaching episode (John, 2000). This ought to be utilized for more complex decision making and analysis. John (2000) underpins the requirement for the learner to work with a supervisor throughout their learning experience. He refers to this as guided reflection and suggests that students use an organized journal. John thought that through sharing reflections on learning encounters more prominent

comprehension of those experiences could be achieved than by reflection as a solitary exercise.

John (2000) additionally utilizes the four patterns of knowing recognized by earlier researchers in this respect. These incorporate: aesthetics, personal, ethics and empirics adding a fifth pattern 'reflexivity'. One of the characteristics of this reflective practice display is, it helps the development of epistemological foundations to reflections. However, this model is censured as it only responds to a situation which has been settled.

3.3.3.5 Rolfe, Freshwater and Jasper's framework for reflective practice

Rolfe, et al. (2001) proposes a system a formative reflective model. The model makes questions 'What? So what? And Now what? Figure 3.3 depicts the critical questions of the reflective model.

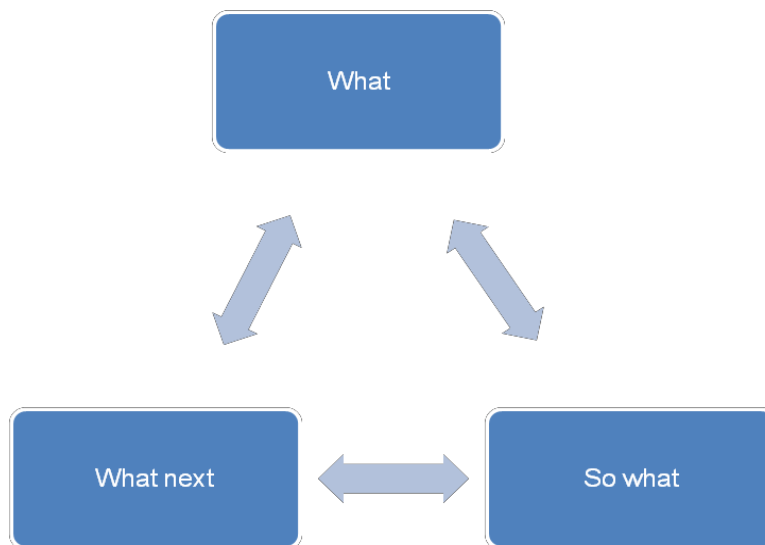


Figure 3.3: Rolfe, Freshwater and Jasper's Reflection Model (Rolfe, et al., 2001)

As a result of these enquires, reflection fuels practitioners from novice to advanced levels. It is also conceivable to use the model basically at the enlightening level. Besides, this model utilizes consecutive and recurrent stages to reflection. Firstly, the teacher reflects on the experience in order to depict it. The second stage encourages

the teacher to build personal theory and knowledge about the circumstance so as to gain from it. At the third level, the teacher reflects on action and thinks about methods for enhancing the situation and considers on the results of his/her actions. For that reason, Rolfe, et al. (2001) considers the last stage of reflections critical to make the best contribution to practice.

Essentially, these collective reflective models allow stakeholders to access a researched model for implementing reflective practice within the teacher education programme. Therefore, by discussing these reflective instructional models for implementing reflective practice in the teacher education institution; this study reveals new insight into the reflective teaching movement.

3.4 UNDERSTANDING REFLECTIVE TEACHING

The section gives the essential presentation about the concept and related terms of reflective teaching. It discusses the relevant theories of education, meanings and nature of reflective teaching, dimensions of reflective teaching, a reflective teaching framework, and constructive teacher education programmes.

3.4.1 Relevant theories of education

Learning has been defined in numerous ways by wide range theorists, researchers and instructional practitioners. Although universal agreement on any single definition is non-existent, many definitions employ common elements. In this section, reflective teaching and learning is examined from the relevant theories of education. This incorporates: behaviourism, cognitivism, and constructivism. Although, learning theories typically are divided into two categories-behavioural and cognitive- a third category, constructivism, is added here because of its recent emphasis in the reflective instructional design literature (Shambaugh & Magliaro, 2006).

In many ways these viewpoints overlap; yet they are sufficiently enough to be treated as independent approaches to deal with and describing teaching and learning. These three theories of learning were chosen because of their importance to the field of instructional

design. It is hoped that reviewing these theories of learning will provide the researcher with a basic understanding of how these viewpoints differ. Yet, constructivism theory of learning was utilized to manage the researcher in looking for pertinent literature related with the preparation of pre-service teachers for reflective teaching. In addition, the study discussed the theoretical framework, the constructivist way to deal with teacher education, in light of the speculations of learning and teaching for reflective teaching.

Basically, learning theories developed in the twentieth century fit into two broad groupings—those concerned with behaviours, how people respond or react with kinds of stimuli, and those linked with cognition, how people interact with stimuli and construct their own learning. The way we describe learning and what we believe about the way learning occurs has important implications for situations in which we want to facilitate changes in what students know and do. Learning theories provide teachers with confirmed instructional strategies and techniques for facilitating learning, as well as a foundation for intellectual selection of methods. However, many teachers are working under the restriction of theoretical background. This section is an effort to analyze the relevant position on reflective teaching which provide foundations for planning and conducting reflective instructional activities (Ertmer & Newby, 1993).

Constructivism is a theory that compares learning with making meaning from a fact. Even though, constructivism is viewed as a part of the branch of cognitivism, both conceive of learning as a psychological construct it distinguishes itself from conventional cognitive theories in various ways. Constructivist theory of learning exerted an enormous effect on present day teaching method (Powell & Kalina, 2009). Without a doubt, it changed significantly our perspectives on training, as it altered the dynamics of the teaching and learning processes, re-imagined the notion of knowledge, redesigned the traditional roles of the teacher and the student, further it highlighted the significance of reflection on both teaching and learning (Splitter, 2009). Accordingly, constructivism is a methodology in which the learner is building an internal illustration of knowledge, and a personal interpretation of experience. It is dynamic, goal-directed, diagnostic and reflective (Simons, 1993; Splitter, 2009).

In the constructivist theory, it is assumed that learners have to construct their own knowledge individually and collectively. Each learner has a repertoire of conceptions and abilities in which she or he should develop knowledge to solve problems presented by the setting. The role of the teacher and other learner is to provide the setting, pose the challenges, and offer the support that will encourage knowledge construction, because students lack the experience of experts in the field, thus teachers bear an incredible obligation for directing student's activity, modelling behaviour, and providing examples that will transform student group discussions into meaningful communication about the subject matter (Powell & Kalina, 2009).

Constructivism, therefore, is an epistemology- a learning or meaning-making theory that offers a clarification of the idea of knowing and how people learn. It maintains that individuals create or build their own new understandings or knowledge through the interaction of what they already know and believe and the thoughts, events, and activities with which they come in contact (Richardson, 1997; Powell & Kalina, 2009). As a result, knowledge is acquired through involvement with content rather than impersonation or redundancy (Kroll & LaBoskey, 1996; Splitter, 2009).

While there are commonly acknowledged traits of constructivism, there are also unique understandings of it. Vadeboncoeur (1997) recognizes three critical strands inside these interpretations: cognitive constructivism, social constructivism, and radical constructivism. It was with the developmental psychologist, Jean Piaget, that constructivism in educating the child was unequivocally expressed. His approach to deal with learning is known as cognitive constructivism. Social constructivism is an entirely different adaptation from that of Piaget's; it was developed by Lev Vygotsky (Prawat, 1999). Vygotsky (1997) stated that learning was more revealed as a process that grew through social interactions. On the other hand, Von Glasersfeld look a glance learning from a very radical point and attested that learning involved internalization of what is perceived (Von Glasersfeld, 1995). This section elaborates on Piaget, Vygotsky, and Von Glasersfeld types of constructivism to learning respectively.

3.4.1.1 Cognitive constructivism

Piaget's constructivist theory is depending on analogies with biological evolution and adjustment. Piaget believed that the child's own actions in the world were important to cognitive development. He believed that the social context was critical in this development process, but the individual was seen as developing in isolation, behaving like a little scientist, making his or her hypotheses and testing them to construct an understanding of his or her environment (Das Gupta & Richardson, 2001).

Piaget's theory postulates highly complex cognitive structures and functions being built up from simple initial processes in conjunction with personal action and experience. These structures are continually internalized by action on the world. The internalization and representation of mental operations such as knowledge and cognition is argued to evolve through a series of stages. Changes from stage to stage are bound to accomplishments by a bulk of developmental processes (Das Gupta & Richardson, 2001; Woolfolk, 2001).

Piaget sought to describe and explain the intellectual development in the individual as a form of adaptation to the environment. In other words, the operations throughout the stages develop by processes of equilibrium, assimilation, and accommodation. Equilibrium was described as a dynamic process of self-regulated behaviour that balances assimilation and accommodation. Assimilation is about organization of experience dependent on one's own logical structures of understanding meaning of the environment (Fosnot, 2006). In order to have the learning occur, a state of disequilibrium needs to happen to accommodate new learning.

Disequilibrium facilitates learning as such that errors are perceived as a result of learners' conceptions and should not be avoided or minimized. Rather learners are suggested to be allowed to explore and generate many possibilities in challenging, open-ended inventions in realistic, meaningful contexts (Fosnot, 1996; 2006). The internalisation of knowledge construction is emphasized. This theory is filled with implications for educating individuals. Teachers are suggested to create environments

that enable learners to explore meaning through experimenting. As such, working with peers may facilitate undertaking challenges tasks.

Cognitive constructivists generally regard the purpose of education as educating the individual learner in a fashion that supports the learner's interests and needs. Consequently, the student is the subject of study; and individual cognitive development is the emphasis. Learning is primarily an individualistic enterprise. This is a child-centred approach that seeks to identify, through scientific study, the natural path of cognitive development (Vadeboncoeur, 1997). This approach assumes that students come to classrooms with ideas, beliefs, and opinions that need to be altered or modified by a teacher who facilitates this alteration by devising tasks and questions that create dilemmas for students. Knowledge construction occurs as a result of working through these dilemmas. Characteristic instructional practices include discovery learning and hands-on activities such as: using manipulative tasks that challenge existing concepts and thinking processes; and questioning techniques that probe students' beliefs and encourage examination and testing of those beliefs (Richardson, 1997; Das Gupta & Richardson, 2001).

To a large extent, this approach assumes that development is an ingrained, natural, biological process that is pretty much the same for all individuals, regardless of gender, class, race, or the social or cultural context in which learning and living take place (Vadeboncoeur, 1997). Internal development is the focus of the teaching environment, and the social and historical context, as well as issues of power, authority, and the place of formal knowledge in the learning environment are not emphasized (Richardson, 1997). It is essentially a decontextualized approach to learning and teaching. Critics of the psychological constructivist approach deprecate its lack of attention to the influence of the classroom culture and the broader social context (Vadeboncoeur, 1997), as well as disregard for power issues, particularly power issues related to knowledge production (Richardson, 1997; Vadeboncoeur, 1997).

3.4.1.2 Social constructivism

This was the theory of Vygotsky in the late 1970's. Vygotsky's point of view was that acquisition and participation were synergistic strategies in learning situations. Aspects of participation involved teaching in contexts that could be meaningful to students based on their personal and social history, negotiating, class discussions, small group collaborative learning with projects and tasks, and valuing meaningful activity over correct answers. Social constructivism emphasizes that learning takes place through interactions with other student, teachers, the world- at- large.

Social or Vygotskian constructivism emphasizes education for social transformation and reflects a theory of human development that situates the individual within a sociocultural context. Individual development derives from social interactions within which cultural meanings are shared by the group and eventually internalized by the individual (Richardson, 1997). Individuals construct knowledge in transaction with the environment, and in the process both the individual and the environment are changed. The subject of study is the dialectical relationship between the individual and the social and cultural milieu. Schools are the sociocultural settings where teaching and learning take place and where cultural tool such as reading: writing, mathematics, and certain modes of discourse are utilized (Richardson, 1997).

This approach assumes that theory and practice do not develop in a vacuum; they are shaped by dominant cultural assumptions (O'Loughlin, 1995). Formal knowledge, the subject of instruction, and the manner of its presentation are influenced by the historical and cultural environment that generated them. To accomplish the goals of social transformation and reconstruction, the context of education must be deconstructed, and the cultural assumptions, power relationships, and historical influences that undergird it must be exposed, critiqued, and, when necessary, altered (Myers, 1996). Variants of social constructivism include situated constructivism: social re-constructivism, sociocultural constructivism, socio-historical constructivism, and emancipatory constructivism.

Social constructivism attributes the central role in the process of cognitive development to the social interaction as opposed to cognitive constructivism claims that social interaction only triggers development at the right moment in time. The most significant bases of a social constructivist theory were laid down by Le Vygotsky claimed that every function in the child's cultural development appears two times; first, on the social level and later, on the individual level.

3.4.1.3 Radical constructivism

Radical constructivism is an epistemological thought that claims scientific knowledge is entirely constructed out of social relations (Von Glasersfeld, 1995). According to von Glasersfeld, knowledge is not passively received but built up by the cognizing subject. In his view, cognition is adaptive and serves the organization of the experimental world, not the discovery of ontological reality (Von Glasersfeld, 1995). There is a reality around us and the individual who knows or learns is in direct contact with experience. This experience is accepted as the truth we live in (Von Glasersfeld, 1995), and anything that lies outside the individual's experience is unknowable. Hereby, Von Glasersfeld does not deny reality; however, he refers to it as an unknowable realm outside experience (Philips, 2002).

Von Glaserfeld put forth the notion that the learner's constructions do not necessarily reflect knowledge of an actual world. Coming to know is a process of dynamic adaptation toward viable interpretations of experiences. We have no way of knowing what authentic reality might be, since input is filtered. Previous constructs also influence our perceptions of current experience. We construct workable models of what reality is based on the social and physical constraints (Von Glasersfeld, 1990). Von Glasersfeld (1996) also refers to adaptive knowledge as the most important customary conception of truth or reality, as the correct representation of states or events of an external world replaced by the notion of viability.

To the radical constructivist, concepts, models, and theories are practical if they are proven to be adequate in the contexts in which they were created. Learning requires self-regulation and the building of conceptual structures obtained through reflection and

abstraction. Problems are not solved by the retrieval of rote-learned right answers. To solve problems intelligently, one must first see it as one's own problem. One must see it as an obstacle that obstructs his/her progress toward a goal (Von Glasersfeld, 1994).

In this regards, Von Glasersfeld (1990) asserts that the traditional view of truth can never be claimed for the knowledge that human reason produces. According to this point of view, constructivism needs to be radical, and must explain that one can manage without the traditional notion of truth. Therefore, he prefers to call this orientation a "theory of knowing", rather than a "theory of knowledge", and regards his orientation as "a post-epistemological perspective" (Von Glasersfeld, 1990:53).

Furthermore, Von Glasersfeld emphasizes the importance of active learning and problem solving as does the cognitive constructivism actually. He considers that concepts and conceptual relations are mental structures and these cannot be passed from one mind to another (Von Glasersfeld, 1995). Hence, in order to learn best, Von Glasersfeld (1995) suggests the knowledge that kids are acquiring needs to be relevant and to their interest. Additionally, he states that while reflecting the conceptual changes that kids make is far more rewarding than if it was imposed on by a teacher. He also claims that a teacher cannot know what misconceptions or understandings of the subject matter the kids have built up. However, the teacher can create environments so that kids can act upon the basis of their ideas, discover which of their ideas lead to friction or collision, and might be in need of revision (Von Glasersfeld, 1995).

From the aforementioned relevant educational theories, it can be deduced that training may modify behavioural responses, but it leaves responding subject's comprehension to fortunate coincidences (Von Glasersfeld, 1994). Accordingly, knowledge does not constitute a picture of the world, rather it comprises action schemes, concepts, thoughts, and it distinguishes the ones that are advantageous from those that are not. Thus, the cognizing subject evolves conceptually to fit into the world as she or he lives or experiences it (Von Glasersfeld, 1995). Guided by the relevant education theories, constructivist theory is used as a general framework for teacher education programmes based upon the study of reflective teaching.

3.4.2 The meaning and characteristics of reflective teaching

Reflective teaching has been characterized and interpreted in numerous ways, from multiple points of view, by various researchers and groups. According to Jacobs, et al. (2011), reflective teaching is a continuous cycle of systematic self- assessment by a teacher of her/his own teaching through open discourse with peers or written analysis. This suggests that reflective teaching is a deliberate, planned and a collaborative effort of teachers for effective teaching and learning (Jacobs, et al., 2011).

Additionally, Jacobs, et al. (2011) emphasize that reflective teaching is a process that starts with teaching, choosing one aspect of the lesson that the teacher wants to research, portrays that part in detail, ask herself/himself why the chosen event happened, reframe events in the light of several theoretical frameworks, asks him/herself what he/she should have done differently, plan what needs to be done in the next light of analysis and start from the very beginning once more.

On the other hand, other researchers viewed reflective teaching as making an arrangement of improvements in acts by reflecting on what have been done in the context of learning and teaching, both teachers and students are required to gather information about learning and teaching contexts. Data for reflection are collected by different strategies of reflective teaching. Related reflective teaching devices might be used separately, or might be utilized in mixes in order to acquire profundity information. A portion of the reflective teaching tools are teaching journals/ diaries, course reports, portfolios, research and surveys, action research, observation, sound and video recordings, peer counselling, and teaching debates (Farrell & Richards, 2005; Farrell, 2007).

Furthermore, research reviews demonstrated that reflective teaching is an imperative component in pre-service teachers' initial training programme. It has likewise been widely recognized by many researchers and scholars as a technique that could advance teachers' professional development and improves the quality of teaching and learning (Akyeampong, 2006). In the other words, it is believed that reflective teaching offers teachers the opportunity to renew their practice and to comprehend

the impacts of their teaching. Additionally, reflective teaching provides information on how teachers interact with learners meaningfully, thus, promoting sound teaching and learning practices (Jacobs, et al., 2011).

In addition, reflective teaching enables pre-service teachers to assume responsibility of their own improvement. Akbari (2007) suggests that reflective teaching makes teachers question platitudes that they have gotten during their formative years and will also enable them to grow more analytic practice. Teachers will integrate the knowledge they have gained amid pre-service training with their common sense experiences and make informed choices based on the situations they end up in. Therefore, reflective teaching helps pre-service teachers in refining their beliefs and theories about teaching as they will relate what they knew and figured out their practical experiences.

While the importance of reflection is not new to instruction, the strategies of reflective teaching practice are relatively recent. To enable teachers, enhance their teaching craft and fortify the theory-practice nexus, researchers outline a comprehensive representation for reflective teaching which may be useful for teachers with a 4-stage organized cyclical process which facilitates reflection in action and on action. These are: observing, reflecting, planning, and acting York-Barr, et al. (2006). Nevertheless, Eby (1998) demonstrates reflective action in teaching that delineates the cyclical and spiralling process in which teachers continuously monitor, evaluate, and revise their practice.

Zeichner (1999) introduced the notion of reflective teaching into teacher education programme as a way of symbolizing the kind of analytic, thoughtful, and purposeful way to deal with our graduates to have. Reflective teaching was a tool to counteract the perceived technicism and dislocation predominant in school teaching and teacher preparation by urging teachers to build and utilize a clear philosophy of education to guide their teaching and challenge prejudice and prejudgements acquired through day to day activity, as teaching can never be innocent (Dewey, 1933; Zeichner, 1999).

As Braun and Crumpler (2004), those who do not reflect upon their practices will be probably to instruct as they were educated. As a result, incapable of teaching methodologies would be reproduced. Similarly, Killen (2007) maintains that unless teachers understand what they are doing and why they are doing it, there is a minimal chance that their endeavours will result in student learning or that their actions will be morally and ethically suitable. This suggests that reflection will improve practice if teachers learn from it. Killen (2007) also states that reflection causes pre-service teacher make educational knowledge through careful consideration of their learning and teaching experiences, thus, the pre-service teachers can develop insight that will encourage them and their peers to better understand teaching and learning conditions.

3.4.3 Dimensions of reflective teaching

Researchers and scholars in the field of instructional studies recognized the three different reflective teaching domains: technical, application and critical areas (Van Manen, 1977; Schön, 1987). The most basic area for reflective teaching is the technical reflection. This area of reflective teaching is aimed at the increment of knowledge on theory and application. The development of the reflective teaching areas and their applications is critical (Taggart, 2005). Recently, Smith (2011) proposed four domains of reflection in reflective teaching experiences: (1) Personal domain which involves thoughts and action; (2) Interpersonal domain which involves interactions with others; (3) Contextual domain which involves concepts, theory and methods; and (4) Critical domain which involves ethical and social contexts. Largely, Table 3.1 synthesizes the concept indicators for each dimension of reflective teaching (Poblete, 1999: 265-267).

Table 3.1: Dimensions of Reflective Teaching (Poblete, 1999)

REFLECTIVE TEACHING DIMENSION	CONCEPT INDICATORS OR REFLECTIVE TEACHING
I. LOVE OF TEACHING	Refers to teachers' love of teaching where teaching is considered as a calling – an endeavour to which teachers ought to be passionately committed.
II. KNOWLEDGE BASE 1. Values and Philosophy 2. Knowledge of subject 3. Curriculum knowledge 4. Knowledge of pedagogy 5. Continuing education	Refers to the body of knowledge and skill that is held in common by practitioners in the field which is undergirded by theory, research, and a set of personal and professional. Values, beliefs and ethics. Teachers' teaching values, beliefs, and philosophy of learning. Teachers' flexible mastery and elaborate understanding of the various aspects of the subject matter. Teachers' knowledge of the range of methods and programmes available for effective teaching. Teachers' ways of organizing and presenting content materials that make students able to understand. Teachers' continuing personal and professional growth.
III. ETHICS OF CARING 1. Teachers as role model 2. Dialogue 3. Confirmation 4. Cooperative practice	Refers to the belief that teachers must care for and seek to understand their students as individuals and as learners with their own unique perspectives. Teachers' as role models of intellectual activity and desirable ways of interacting with people. Teachers' openness to discuss privately and in confidence anything students want to talk about while maintaining mutual respect. Teachers' ways of nurturing student's self-esteem. Teachers' ability to work cooperatively with students/ parents/peers.
IV. CONSTRUCTIVIST APPROACHES TO LEARNING 1. Teaching and learning as interactive engagement 2. Teaching and learning as an active construction as meaning	Refers to teachers' ability of helping students actively construct meaning during learning by relating new knowledge to their past experiences and personal purposes. Teachers' ability to guide peer interaction effectively Teachers' ways of encouraging students to construct meaning for themselves.

<p>3. Students as active participants in teaching and learning</p>	<p>Teachers' ways of encouraging active, meaningful learning.</p>
<p>4. Learning as a continuous reconstruction of students experiences and purpose</p>	<p>Teachers' ways of encouraging a participative democratic, educational environment in which people freely raise questions and doubts.</p>
<p>V. ARTISITC PROBLEM SOLVING</p> <p>1. Observation, reflection and problems identification</p> <p>2. Trying out one or more solutions</p> <p>3. Evaluation and further inquiry</p> <p>4. Puts plan into action</p>	<p>Teachers' ability to integrate students' life experiences into the classroom.</p> <p>Teachers' ability to relate subject matter to students' backgrounds, needs, interests, and purpose. Refers to the process of imaginatively adapting the curriculum to meet students' backgrounds, interests, and needs. Teachers' ability to reflect on the learning situation and observe carefully what students say and do.</p> <p>Teachers' ability to acquire a good empathetic understanding of students' pertinent past experiences and personal purposes. Teachers' ability to find a unique combination of ideas, methods, and theories that work best for each student.</p> <p>Teachers' ability to judge the effectiveness of his/her methods through students' reactions in class. Teachers' willingness to continually review the quality of his/her judgements with the help of research on students' learning achievements.</p> <p>Teachers' as action researcher.</p>
<p>VI. INQUIRNG ATTITUDE TOWARD EDUCATION</p> <p>1.A questioning, pondering, probing, challenging, democratic perspective on the personal and public virtues of teaching and learning</p>	<p>Involves taking a questioning, democratic perspective on the virtues of teaching and learning and a willingness to challenge any educational discourse.</p> <p>Teachers' willingness to inquire regularly into learning patterns of student and reasons for everything that goes on in the classroom. Teachers' willingness to critically evaluate the various philosophies and methods they encounter in their own goals, values, and principles Teachers' willingness to challenge existing social and political structure.</p>

2. Curriculum leadership	Teachers' as leaders in content selection, organization and evaluation of the curriculum. Teachers' as role models in making wise curriculum decisions.
3. Persistence or willingness to engage in inquiry.	Teachers' persistence in problem solving

Table 3.1 presented the key dimensions and the indicators of reflective teaching. The table synthesizes the essential reflective teaching dimensions into five. These include: love of teaching, knowledge base, ethics of caring, constructivist approach to learning, artistic problem solving, and inquiring attitude toward education (Poblete, 1999). The five dimensions of reflective teaching highlighted the scopes of reflective teaching development within teacher training framework. In terms of the affective, cognitive, and skills needed by the practitioners for reflective teaching profession. Fundamentally, the reflective teaching aspects are concerned with creating reflective teachers; by giving emphasize for reflective teaching dimensions in the course of the teaching and learning process.

3.4.4 A reflective teaching framework

This study was concerned with investigating the reflective teaching practices that lead to the characteristics and aspects of adapting implementation f framework. Within the research findings of this study, the proposal of an integrative reflective teaching framework for implementing reflective teaching practices is apparent through the empirical and theoretical findings, but in order for TEIs to implement this framework into actions, the key stakeholders should have to be agreeable to implant reflective practices into the curriculum.

Reflective teaching is based upon the principle of instructional design model, which allowed practitioners to challenge existing schemas, their beliefs, and attitudes as an essential means for professional growth and learning. In this instructional model, practitioners are supposed to perform reflections using reflective practices. It is believed that reflective practitioners' understanding of the teaching profession will be enriched.

In this section, the reflective teaching framework of the study is displayed and highly

structured. The main characteristics for the reflective teaching practice and the relevant teaching and learning theories were used to identify the scope of this framework. The reflective teaching framework comprised the key phases and steps for effective implementation of reflective teaching practices (Stanley, 1998; Kumari, 2014).

This reflective teaching framework illustrated in Figure 3.4 was based on the survey of related writings on the chosen reflective practice models, reflective teaching approaches, teaching and learning perspectives, and frameworks for reflective teacher education programmes (Barlett, 1995; Stanley, 1998; Kumari, 2014; Adula & Tacconi, 2014). The design of the training focused on the particular areas to address the needs of the teacher educators, pre-service students, and cooperating teachers. The specific areas for the reflective teaching practice consisted of the stages and ventures in the development of a reflective teaching practice in teacher education programmes (Barlett, 1995).

In this case, the problems being reflected must be nearly connected with social condition; the teacher must be occupied with the issues to be limited; problems must originate from the pre-services' teaching experiences; reflections ought to incorporate teacher's solution in her/his own environment; the responsibility and solutions to the doubts should go to the teacher; the evidences should come from the teacher's teaching experience; the teacher's view point should be tried in the teaching practice; and once the teacher's view proves to have stood the trial of training, it must be put into impact. In sum, Bartlett's view underlines the importance of action in reflection.

The reflective teaching framework for understanding the practice and the need to develop reflective experiences of the pre-service teachers depends on the three dimensions: preparations to reflective learning and teaching, reflective practices, and making of reflections (Stanley, 1998; Kumari, 2014).

Stanley (1998) depicts the process of developing a reflective teaching practice as a series of phases: (a) engaging with reflection, (b) thinking reflectively, (c) using reflection, (d) sustaining reflection, and (e) practicing reflection. It is noticed that the

phases do not represent an arrangement that is pursued rather they are being used in particular moments that constitute a particular phase.

A more detailed reflective teaching framework has been developed in order to guide practitioners involved in the teacher education programmes for implementing reflective teaching practices (Kumari, 2014). As per this framework, reflections occur in terms of a non-linear way of learning from practices. According to this framework, pre-service reflective teaching programme should incorporate a series of phases of reflection: (i) presentation of the event, (ii) study and analysis of the event, (iii) critical reflection on the event, and (iv) review and response to the event. In light of the above framework, therefore, the study investigated the reflective teaching practices of the pre-service teachers in teacher education institution in Ethiopia. In doing so, the actual reflective practices were compared with the good practices in reflective teaching experiences so as to distinguish the gaps between the intentions and real executions. Hence, in the following section, the reflective teaching framework of the study is presented and expounded in detail. The schematic representation of the reflective teaching framework of the study is portrayed in Figure 3.4.

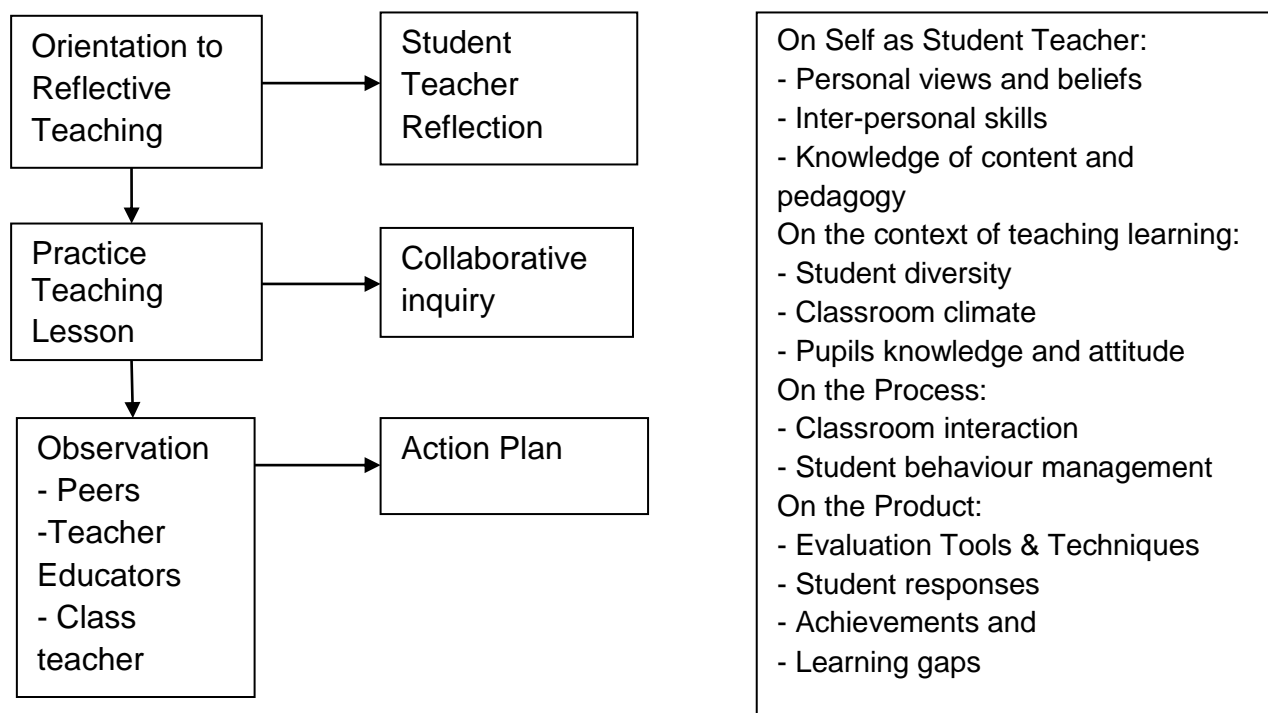


Figure 3.4: Integrative Model for Reflective Teaching (adapted from Kumari, 2014)

The steps for reflective teaching practice of the reflective teaching framework are described and will be served as an appraisal tool for this study.

Step One: Orientation and theory demonstration on reflective teaching

From the constructive teacher education perspective, an orientation programme is suggested to make mindfulness on reflective thinking and develop a comprehension about reflective teaching through the reflective teaching model. Which is a basis for pragmatism and reflective practitioner developments? Orientations and theory demonstrations on reflective teaching enhance understanding of what this actually means in principle and in practice (Loughran, 2002). The introduction and theory demonstration on reflective teaching should involve the policy, procedures, approaches, methods, standards, skills, strategies, and evaluations for reflective teaching framework. In this regard, the actual reflective teaching practice in the institute is explored and improved in terms of the arrangements and accentuation of the orientation and reflective teaching practices.

Step Two: Practice teaching

As a customary element of all teacher training courses, the student-teacher needs to exercise in the schools placed for teaching practicum. Amid the training, the teacher educators, cooperating teachers, and companions watch the exercise and record the scrutiny. In this regard, MoE (2009:6) states that linkage of professional knowledge and practice through effective partnership between teacher education institutions and schools; and between teacher educators in universities and expert teachers (mentors) in schools play vital role for practising teaching.

In that sense, the practice component of the teacher education programme has to be seen not merely as a time when the novice practice the technical application of specific competences theoretically studied on-campus. This implies the application of teacher education pedagogies such as clinical experience (like practicum & micro-teaching); the use of performance assessments and portfolio; analysis of teaching and learning; case methods; teacher inquiry; autobiography; and action research (MoE, 2009).

Cooperating teachers should assist pre-service teachers in translating content knowledge and skills into successful classroom instruction. There are a number of strategies that are generally employed such as observing collaborative teaching, discussing and planning of lessons and reflective practices.

Learning what thoughts merit putting into training, what ideas it is conceivable to try, and under what conditions any specific thoughts are helpful are on the whole needy upon involvement in schools. Without a doubt, realizing being a teacher must be learned in schools. This inevitably makes schools as indispensable sites for teacher preparation (MoE, 2009).

Step Three: Pre-service teacher's reflection

The objective of the pre-service teacher instruction programme in Ethiopia is to help pre-service teachers end up versatile specialists or reflective experts who are set up for powerful long-lasting discovering that permits them persistently to add to their knowledge and capabilities. Therefore, the pre-service teachers need a direction of basic thoughts and abilities. Similarly, they need the ability to ponder and gain insights from their teaching with the goal that it ceaselessly enhances (MoE, 2009). To achieve this, pre-service teacher education needs to be integrated with classroom teaching experience. And if students are made to learn from their experience then, the capacity to reflect is essential

Loughran (2002) also recommends that if the attention is truly on the pre-service teacher as a learner, at that point it is their capability to analyze and make significance from teaching experience that issues most – instead of when the teacher educator filters, develops and shares the information with the student. Hence, pre-service teachers should be educated to reflect; and teacher educators need to explicitly address the topic of “what is reflected on and for what reason” (Loughran, 2002:33).

According to this framework, not long after the exercise, the student-teachers ought to be given time for reflection. The reflection chiefly identified with foretell, process, context and outcomes. Further, these could be explicitly directed as oneself as pre-service

teacher, the context of teaching- learning like classroom climate, student diversity, pupil's knowledge and mind setting, classroom behavioural management and students' cooperation. Reflection is also done on self as pre-service teacher in the wisdom of the context and pedagogy. These will be done using self-assessment devices, composing reflective journal and student diary.

Step Four: Collaborative inquiry

Teaching and teaching units (courses, lessons, practicum, workshops, etc.) should be under the obligation of a genuine group of instructors including university teachers, teachers from practicum schools and other experts if necessary. Such a team would guarantee that each unit mutually fortify one another for coherent progression (MoE, 2009).

In this framework, it is believed that after the pre-service teacher's self-reflection, observers (teacher educators, cooperating teachers, and peers) discuss the lesson with the student-teacher so as to provide useful input according to the teaching-learning performance. The pre-service teacher experiences the self-reflection on points and the input received should incorporate collaborative inquiry by identifying the recognizable proof of the qualities, frail focuses, areas needs to be reinforced, and precautions to limit the threats.

Step Five: Preparation of reflection action plan

The student teacher will prepare a reflective action plan for a future exercise based on the impressions of the previous session.

3.5 CONSTRUCTIVIST TEACHER EDUCATION PROGRAMMES: AN APPROACH TO REFLECTIVE TEACHING

Reflective teacher education is established on the concept of reflection and reflective teaching. It is that teacher education programme whose curial aim is to teach and prepare a reflective teacher. Reflective teacher education has grown to a great extent

as response to the criticism that has been levelled at the technocratic orientation and as popularised by the competency-based teacher education (Goodman, 1992; Rainer, 2002). Education researchers around the globe are now investigating the promises and practices of constructivist theories for preparing pre-service teachers.

In this regards, Wood (1995) suggests that the alternative outlook the constructivism offers learning as a process of personal construction of meaning presents a potentially powerful way to rethink teacher education programme. Besides, it is upheld that there are dimensions of constructivist theories that provide a way of reframing teacher education (Rainer, 2002). In recent years, constructivism has received impressive considerations in education programmes, teacher preparation, and policy development. As a result, it has been proclaimed as a more natural, appropriate, profitable, and enabling framework for training teachers (MacKinnon & Scarff-Seatter, 1997; Rainer, 2002; Fosnot, 2006; Kumari, 2014).

The philosophical assumptions of constructivism for reflective teacher education, are based on learning as a process of knowledge construction, not knowledge recording or retention, and on the importance of reflection as a means of learning from experience. Pedagogical strategies for effective teaching with regards to reflective teacher education programmes include engaging the learner, exploring personal beliefs, knowledge, and experience, challenging ideas and facilitating re-conceptualization, and providing opportunities for experimentation and assessment. Since both conjectures assume that learning begins with a personal desire to learn; it is the teacher's initial responsibility to stimulate the learner's interest. Thus, constructivism and reflective teaching both underline the importance problem as incitement for learning to teaching (Richardson, 1997; Brooks & Brooks, 2005).

The principles of constructivism and reflective teacher education programme employ these general strategies to lead more effectively learning. The ultimate goal of constructivism is competent teachers or enhanced execution in the teaching and learning process. These strategies are also powerful in light of the fact that they redefine the purpose of learning, as their applications facilitate the integration of theory into practice.

Learning activities in constructivist settings are characterized by active commitment, inquiry, problem solving, and joint efforts with others. As opposed to a gadget of knowledge in which the teacher is considered a guide, facilitator, and co-explorer. Hence, the constructivist/ reflective teacher paradigm worldwide is described as a convergence of Jean Piaget's constructivism and John Dewey's progressivism. It is designed to provide pre-service teachers with experiences that promote reflective practice and that view the learner as an autonomous and inquisitive thinker (Richardson, 1997; Brooks & Brooks, 2005).

Two quite different forms of constructivist teacher education are being advocated today. One of the forms attempt to train teachers how to teach in a particular constructivist manner. Another type of constructivist teacher education involves working with teachers and pre-service students to enable them understand their own tacit understandings, how these have helped and the impacts of these understandings on their actions so as to introduce new conceptions and premises as potential options to the students (Harrington, 1995).

The first type of teacher education programme often involves considerable direct instruction both in theory and practice, whereas the second attempts to model in such way that students are involved in investigations of premises and perspectives that is taught. Nonetheless, the two forms of constructivist teacher education could present problems. Hence, careful examinations of the types of constructivist teacher education for reflective teaching practices could lessen the problems attached with them. As a rule, Richardson (1997) suggested the two different forms of constructivist teacher education for training teachers to teach in a reflective way and working with teacher - learner interactions in a constructivist manner to empower them understand their inferred conceptions to those held by the student.

Constructivist teacher education, generally, reflects two noteworthy traditions- the developmental and social re-constructionist traditions (Canella & Reiff, 1994). Programmes influenced by the developmental convention endeavour to show students how to teach in a constructivist postulation. Such types of teacher education programmes are typically characterized by substantial direct instruction in theory

and practice, often without complementary opportunities for inquiry, discovery, or self-examination. This approach can easily become overly prescriptive. If this occurs, the teacher educator models an approach to teaching that is essentially antithetical to the approach intended to employ in their future classrooms (Oldfather, et al., 1994).

On the other hand, teacher education programmes influenced by the social reconstructionist tradition attempt to help teacher education students deconstruct their own earlier knowledge and states. As a result, the pre-service teacher will be able to comprehend these understandings, explore the effects they have on teaching and behaviour, and consider alternate conceptions and premises that may be more functional in teaching. Critical analysis and structured reflection on formal course knowledge and everyday practical experience are incorporated (Canella & Reiff, 1994).

Secondary school teacher education programme initiated in Ethiopia in 2009 had the goal to build a teacher education programme that is based on pragmatism. Changes in the Ethiopian schools necessitated teacher graduates that can challenge the status-quo through reflection and by involving in self-study and practice. For this purpose, the apprenticeship/partnerships approach to reflective teaching was identified as a useful approach to introduce pre-service teachers' new practices, in collaboration with cooperative teachers, rather than about modelling and imitation in their preparations (MoE, 2009). In this study, the major elements in constructivist teacher education programmes, such as the relevant pedagogy and personnel's requirement were selected to be aware of the features for better reflective teaching within the existing teacher training programme.

3.5.1 Constructivist pedagogy

Tellez (2007) ascertains the importance of constructivism in educational theory and research cannot be underestimated. Given the continuing interest and number of programmes grounded in constructivist theories, the role of constructivist teacher education on pre-service teachers is recognized (Rainer, 2002; Beck & Kosnik, 2006; Kumari, 2014).

Teachers are being relied upon teaching in reform-minded ways. Different labels have been appended to reform-minded teaching, including 'authentic pedagogy' (Newman & Associates, 1996), 'constructivist pedagogy' (Fosnot, 1996), and 'productive pedagogies' (Lingard, et al., 1998). Regardless of the labels, there is no doubt that 'progressive pedagogies are probably based on the rhetoric of constructivism' (Windschitl, 2002). Key to constructivism is the assumption that learners play active roles in 'constructing' their own meaning. Knowledge is not seen as fixed and existing independently outside of the learner rather learning is a process of accommodation or adaptation dependent on new encounters or thoughts (Jenlick & Kinnucan-Welsch, 1999; Brooks & Brooks, 2005).

There are varying conceptions of constructivism, depending on whether the emphasis is on individual intellectual processes or the social co-construction of knowledge. However, many researchers and educators have concurred that the constructivist pedagogies that are pushed in the reform vision of learning represent a synthesis of cognitive and social perspectives, where knowledge is viewed as individually developed and socially intervened (Windschitl, 2002).

In this regards, classrooms are being seen as places where inquiry and co-construction as well as other types of student-centred, discourse-based interactions dominate (Holt-Reynolds 2000). The constructivist teaching is being reframed as co-constructing knowledge with students, acting as conceptual change agent, mentoring apprentices through the zone of proximal development and supporting a community of learners (Windschitl, 2002).

These new expectations for teachers' knowledge and practice have brought about expanded learning requests for teachers and keeping with a social constructivist view of learning for teacher improvement have been set up. Constructivist pedagogy is less about the sequencing of events and more about reacting to the requirements of a situation. Understanding the significance of this theory empowers teachers to more readily pick and direct methods and strategies (Bentley, et al., 2007).

Brooks and Brooks (2005) provide a detailed description of constructivist classroom practice and its theoretical underpinnings. They gave five standards of constructivist pedagogy: (a) presenting issues of emerging relevance to learners; (b) organizing learning around “big ideas” or essential concepts; (c) looking for and valuing students’ perspectives; (d) adapting curriculum to address students’ suppositions; and (e) assessing students’ learning in the context of teaching.

In preceding part, the roles the constructivist pedagogy can play in empowering pre-service teachers’ learning have been discussed. It is believed that constructivist pedagogy provides chance for student teachers to continue learning from their experiences in order to initiate reform in classrooms in light of the constructivist epistemology.

3.5.2 Reflective practitioners

Constructivists call teachers reflective practitioners. A reflective practitioner is a teacher who is continuously engaged in ongoing critical reflection to improve instruction and makes clear his own particular world view for considerations (Williams & Burden, 1997; Impedovo & Malik, 2016). Clearly, reflection assumes an indispensable role in constructivism. Teachers are encouraged to reflect upon their actions with the end goal to look critically on their teaching and relentlessly improve their teaching and learning skills. Brooks and Brooks (2005) state descriptors of reflective teachers can be applicable to teaching a wide range of subjects.

An empowered teacher is a reflective decision maker who discovers bliss in learning and in researching the teaching/learning process—one who views learning as development and instructing as an encouraging procedure to improve and enrich development (Fosnot, 1989; Impedovo & Malik, 2016). A good teacher must be a reflective practitioner. A reflective teacher needs to solicit him/herself inquiries of the reflective cycles, observing (what happened?), reflecting (why?), planning (so what?), and acting (now what?), of teaching when doing his/her reflections (York-Barr, et al., 2006). York-Barr, et al. (2006) also state that reflective experts utilize these processes

for looking at dispositions, objectives, and practices to gain new or deeper understandings that prompt improved students' learning.

Many years ago, Dewey (1933) called for teachers to make reflective move that involves active, persistent, and careful consideration of any belief or supposed form of knowledge in light of the grounds that support it and the further consequences to which it leads. Dewey (1933) recognized the three qualities of reflective teachers which are important for teachers today: open-mindedness, responsibility, and wholeheartedness. Open-mindedness is a longing to listen to more than one side of an issue and to offer consideration regarding elective perspectives. Responsibility includes cautions contemplations of the consequences to which an action drives, a teacher's eagerness to inspect all decision making (e.g., decisions about curriculum, instruction, evaluation, organization, management) from a lucid philosophical framework of teaching and learning. Wholeheartedness is characterized as a pledge to look for each chance to realize, which infers that teachers can overcome fears and uncertainties to critically evaluate their practice in order to make significant improvement.

Despite the fact that it is not possible to prescribe a well ordered methodology, there are actions and exercises that are fundamental to advancing as a reflective practitioner. The three practices recognized are all extremely imperative for getting a reflective practitioner (Dewey, 1933): (1) Solitary reflection, (2) Ongoing inquiry, and (3) Perpetual problem-resolving.

Solitary reflection is a mindful thought of teachers exercises and basic investigation into the effect of his/her own conduct to the results of the activities on the students. So it is very important to take part in efficient reflection by making it an unblemished piece of teachers' every day practice. Ongoing Inquiry involves unending questioning of the status quo and conventional wisdom by seeking teachers' own truth. Being a valiant truth-searcher implies examining the premises that underlie both classroom and school drills. Perpetual problem-solving practice incorporates critical thinking aptitudes to gain better arrangements, construct connections, and to show students new adapting strategies.

In the aforementioned sections, the major elements of reflective teacher education programmes are reviewed in order to present the teacher education curriculum framework the key components for enhanced reflective teaching practices.

3.6 CLOSING REMARKS

This chapter presented the conceptual and theoretical frameworks for this study. The research questions helped to build up the conceptual and theoretical bases of this study (section 1.6). Accordingly, the conceptual framework created focus for the study, while making a connection between the literature and the data obtained through the research. Besides, the conceptual framework for this study was articulated so as to make the ideas of this research less demanding for informed readers to comprehend it.

From the conceptual framework, educators may have determined the advantages of reflective teaching practices in teacher education curriculum. The benefits of reflective teaching practice were illustrated from the teacher educators, pre-service teachers, and cooperating teachers, superimposed with the formation of an aggregate teacher training framework for reflective teaching usage. Additionally, advocates of reflective teaching are worried with the conceptualization how reflective teaching practice benefits the pre-service teachers.

Furthermore, the theoretical framework displayed was based around the relevant educational theories. The constructivist theory was underscored for the theoretical framework of this study. For the purposes of this theoretical framework, the reflective teaching practices were featured in order to exhibit the significance of reflective teacher training framework as an instructional mediation for good teaching encounters. Regarding the reflective teaching skills, tools to improve reflective teaching capabilities, and the fundamental components for reflective teacher education are necessary to initial teacher education curriculum were highlighted. Moreover, this chapter addressed attributes and temperaments of reflective teachers.

Finally, within Chapter 3, the need of using reflective practices within the pre-service teacher preparation curriculum framework was investigated. This information presented

within the chapter showed why creating a reflective teaching framework would profit both the students and the teachers in the present pre-service teacher education in Ethiopia. Chapter 4 discusses the basis for empirical research, the research design, and the research methods.

CHAPTER 4

RESEARCH METHODOLOGY

4.1 INTRODUCTION

The motivation behind this investigation as indicated in Chapter 1 was to more likely see how reflective practice could be conceptualized and enhanced in pre-service secondary school teacher education programme. The main research question that guided this study: How can Ethiopian secondary school pre-service teachers' use of reflective teaching practices be improved Chapter 2 discussed the contextual framework in which the TEIs implement and demonstrate the expectations and aspirations stated in the teacher education curriculum framework to carry out in a professional manner. Chapter 3 gave the conceptual and theoretical bases of the study by examining scholastic writing about how the conceptualization of reflective teaching influenced teacher education programmes.

Chapter 4 portrays the procedures utilized in the empirical research process. In addition, this chapter analyses the methodological suppositions whereupon this investigation was based; clears up how and why particular research procedures were chosen, developed and accomplished; and, gives a delineation of the depiction the examination. The major issues in this chapter included the research paradigm, the research approach, the research strategy, the sampling procedure, data collection tools, and methods of data analysis. Finally, the ethical measures and concluding remarks are presented in this chapter.

4.2 RATIONALE FOR EMPIRICAL RESEARCH

The present investigation aimed to empirically determine the level of reflective engagements of pre-service teachers by collecting observational data from a typical teacher education institution in Ethiopia. Empirical research depends on direct understanding or experience of the phenomenon. To state that an empirical research is an observational inquiry the researcher uses to answer the research questions or

endeavour to answer it by acquiring direct data from the actual situations. Also research question is an empirical question to say that the researcher will answer it or try to answer it by obtaining direct and observable information from the field work, instead of from model, by theorizing, or by thinking, or by arguing from its first principles. The basic thought in empirical research is to utilize discernible data as the method for answering research questions, and of developing and testing ideas (Punch, 2006:3).

With respect to this study, empirical research encourages the researcher to gain a fuller comprehension of how the reflective teaching implementation happens in teacher education institution, what influences the reflective teaching practices in the way it is executed by the teacher education institution, and what past investigations say in regards to how reflective educational programmes can be better implemented by collecting direct accounts from the field work. This empirical research fills the gaps observed in the contextual, conceptual and theoretical assumptions for the phenomenon by making more rational and ensuring that responses for issues related to ponder under scrutiny are attempted first before closures are drawn. According to Creswell (2009), valid research requires a greater amount of both empirical and theoretical research for culmination and sufficiency of results.

4.3 RESEARCH DESIGN

The research design is characterized as a blueprint for directing an investigation with greatest authority over variables that may meddle with the validity of the research results (Burns & Grove, 2009). Yin (2002) also viewed that a research design is the coherent sequence that interfaces the empirical data to the investigation's underlying questions and, ultimately, to its conclusions. Further, a research design provides the essential structure for a study, and incorporates the framework, who or what will be examined, and the tools and processes to be used for compiling and analysing empirical materials (Keith, 2000, Punch, 2014).

The most exhaustive meaning of a research design which will be received in this examination is the one that is both as a plan as well as a methodology for gathering, interpreting, translating, and detailing information in an investigation (Creswell & Plano-Clark, 2011; Marshall & Rossman, 2016).

The utilization of a convergent (parallel or concurrent) triangulation research design is decided for this investigation expects a QUAN-qual approach. The building up of this design is that QUAN and qual data is gathered and analysed simultaneously, with the QUAN stage given need over the qual and apply the outcomes to comprehend an investigation issue (Creswell & Plano Clark, 2011; Creswell, 2012). The primary motivation behind utilizing this research design is to guarantee that the shortcomings of method are made up for by the qualities of the other method (Creswell & Plano Clark, 2007). By utilizing the concurrent triangulation design in the mixed methods approach, the essential point is confirmatory, corroboration or cross-validation (Tashakkori & Teddlie, 2010). In the present investigation, qualitative finding will be utilized to approve quantitative outcomes concerning how reflective teaching is actualized in ETEIs.

The concurrent triangulation design has various real qualities and shortcomings (Johnson & Onwuegbuzie, 2004). The main real quality of the design is its commonality with numerous researchers which fits having the capacity to be utilized even by novice researchers in the research profession. The second quality of this structure is that since data accumulation and analysis in the two stages (QUAN and qual) are done in the meantime, it's anything but a tedious plan when contrasted with consecutive designs. At long last, the fundamental quality of this design is that it enables the shortcomings of one technique to be balanced by the quality of the other method prompting the creation of more valid research discoveries.

Contrary, the parallel triangulation design has one noteworthy shortcoming as per Johnson and Onwuegbuzie (2004). By having both QUAN and qual stages of the analysis procedure done in the meantime, this design requires know-how in both quantitative and qualitative research approaches and a great deal of interest in exertion for a researcher to have the capacity to completely think about a marvel. To manage this twin test of exertion and mastery prerequisites with regards to the setting of the present study, the researcher focused on guaranteeing that he improves his investigation aptitudes particularly focusing on the two research techniques by doing further perusing, going to meetings, going to classes and workshops.

The main reasons for selecting the concurrent triangulation design for this investigation are that it enhances the research outcomes by reducing the shortcomings inborn in one technique for satisfactorily by the qualities characteristic in the other technique and it takes into consideration the accumulation of thorough information, sufficient to answer the investigations' questions with respect to how ETEIs implement the reflective teaching practices in the pre-service teacher education implementation curriculum framework.

In the context of the current investigation, the main research answer to be answered by the research design is: How can Ethiopian secondary school pre-service teachers' use of reflective teaching practices be improved? As the components used to twig the main research issue and structure for the investigation, the research paradigm, research approach, and research strategy employed in this investigation are discussed.

4.3.1 Research paradigm

Making up a knowledge claim means that researchers start a project with certain assumptions about how they will learn and what they will need during their inquiry. These claims might be called paradigms (Lincoln & Guba, 2000; Neuman, 2000). Furthermore, a paradigm is a way of looking at the world. It is composed of certain philosophical assumptions that guide and direct thinking and action. Attempting to categorize all educational and psychological enquiry into a few paradigms is a complex and, perhaps, impossible task (Guba & Lincoln, 2005).

A particular paradigm determines the scope of the necessary philosophical grounding of any given case, because it considers the axiological, ontological, epistemological and methodological dimensions of a particular research effort (Guba & Lincoln, 2005). These help researchers make claims more or less what is knowledge (ontology), how we know it (epistemology), what values go into it (axiology), how we write about it (rhetoric), and the process of reading it (methodology) (Creswell, 2002). Of the different ways of categorizing research paradigms, in existing literature four broad paradigm categories are usually designated, namely the post-positivism, constructivism, transformative and the pragmatic research (Guba & Lincoln, 2005; Morgan, 2007), detailed by Guba & Lincoln (2005) and Morgan (2007) in the Table 4.1.

Table 4.1: Basic beliefs associated with the major paradigms (Tashakkori & Teddlie, 2003)

<i>Basic Beliefs</i>	<i>Post-positivism</i>	<i>Constructivism</i>	<i>Transformative</i>	<i>Pragmatic</i>
Axiology (Nature of ethical behaviour)	Respect privacy; informed consent; minimize harm (beneficence); justice/equal opportunity	Balanced representation of views; raise participants' awareness; community rapport	Respect for cultural norms; beneficence is defined in terms of the promotion of human rights and increase in social justice; reciprocity	Gain knowledge in pursuit of desired ends as influenced by the researcher's values and politics
Ontology (nature of reality)	One reality; knowable within a specified level of probability	Multiple, socially constructed realities	Rejects cultural relativism; recognizes that various versions of reality are based on social positioning; conscious recognition of the consequences of privileging versions of reality	Asserts that there is single reality and that all individuals have their own unique interpretation of reality
Epistemology (nature of knowledge; relation between knower and would-be known)	Objectivity is important; the researcher manipulates and is observed in a dispassionate, objective manner	An interactive link between researcher and participants; values are made explicit; created findings	An interactive link between researcher and participants; knowledge is socially and historically situated; need to address issues of power and trust	Relationships in research are determined by what the researcher deems as appropriate to that particular study
Methodology (approach to systematic inquiry)	Quantitative (primarily); interventionist; decontextualized	Qualitative (primarily); hermeneutics; dialectical; contextual factors are described	Qualitative (Dialogic), both quantitative and mixed methods can be used; contexts and historical factors are described, especially as they relate to oppression	Match methods for specific questions and purposes of research; mixed methods can be used as researcher works back and forth between the various approaches.

From the paradigmatic options described in Table 4.1, the pragmatic paradigm was deemed the most appropriate philosophical stance to guide this study, since pragmatism is one of the paradigms that provides an underlying philosophical framework for mixed methods research (Tashakkori & Teddlie, 2003). Thus, for the mixed methods researcher, pragmatism opens the door to multiple methods, different worldviews, and different assumptions, as well as to different forms of data collection and analysis in the mixed methods study (Creswell, 2002).

4.3.1.1 The pragmatic paradigm

Pragmatism concerns that selecting between one side and the other is somewhat unrealistic in practice; and it is contended that the most important determinant of which place to espouse is the inquiry questions (Creswell & Plano Clark, 2011; Saunders, et al., 2009). Creswell and Plano-Clark (2011) assert that pragmatism is a disposition, a method and a philosophy that utilizes viable results of thoughts and convictions as a standard for deciding their esteem and truth. The pragmatic paradigm emphasises that multiple realities exist in any given provision, and that, the researcher's choice of paradigm is dependent on the research question the study is trying to solve (Saunders, et al., 2009). As a paradigm that was seen as the best mixed methods research, pragmatism acknowledges that quantitative and qualitative methods can be blended to enhance a study (Creswell, 2012). The pragmatism paradigm contends that quantitative and qualitative methods can be utilized to complement each other in a single research as a method for considering culmination, amplexness, and robustness of discoveries (Tashakkori & Teddlie, 2010; Creswell, 2012).

Pragmatism is especially relevant where the research question does not indicate clearly that either a positivist or interpretive philosophy should be taken in an interrogation. Therefore, in this philosophical quarrel the uses of both qualitative and quantitative methods to break up a real-life world challenge are commended. The principle behind the choice is the research questions, where the function of either quantitative or qualitative approaches does not entirely address the research problem, whilst a combination of approaches does (Creswell & Plano Clark, 2011).

The pragmatic position provides for the purpose of both qualitative and quantitative research methods to accumulate data and make inquiry into complex phenomena of social and natural contexts (Creswell, 2009; Morgan, 2007). Thus, the pragmatic research paradigm provides for the acceptance of mixed methods as the data collection technique which opens the opportunity to be objective and subjective in analysing the points of view of the participants (Saunders, et al., 2009).

The pragmatic research paradigm, further, helps to offer a grounding where the research avoids engaging in matters of insignificance rather than matters of truth and reality and as such is intuitively appealing (Creswell, 2009; Tashakkori & Teddlie, 2003). Furthermore, a pragmatic approach allows areas to be studied that are of interest, embracing methods that are appropriate and using findings in a positive manner in harmony with a recognized value system (Creswell, 2009). In addition, the pragmatic research methodology is multi-purpose in nature and, therefore, a good tactic that will allow questions to be addressed that do not sit comfortably within a wholly quantitative or qualitative approach to research design and methodology.

Pragmatic research approaches also perceive issues differently in different scenarios and permit different views and interpretation of the world. In the epistemological paradigm, the pragmatic research approach offers the justification and rationale for combining methods and the knowledge of providing tentative answers to inquiry questions for mixing approaches and method in a study (Johnson, et al., 2007). The pragmatic research approach, though recently in research philosophy debates, focuses on the problem and tries to discover practical solutions with the usage of mixed methods.

Saunders, et al. (2009), state that pragmatism provided a foundation for practical research by incorporating different perspectives which help to clear the data reading process in research. Hence, a pragmatic research paradigm helps to see the assumptions that support the knowledge and inquiry. In addition, it does not separate the research as purely quantitative or qualitative in nature with either a positivist or interpretive philosophy. A pragmatic stand point provides a balanced point between the deductive and inductive perspectives of thinking which offers practical solutions

for merging different paradigms. As a result, Creswell (2009) recommended that a pragmatic research view point seemed to be the most important paradigm with a strong philosophical relationship for a mixed method approach. In the other words, pragmatism provides a better grounding to fully research the complex phenomenon instead of employing a single method approach in the inquiry. The practical approach is a safer procedure for responding “what”, “why”, and “how” research questions (Saunders, et al., 2009).

Thus, studying the unique characteristics of this practical perspective and critically deducing from the above treatments, this research adopted a pragmatic stance in research inquiries. The role of the alternative philosophical stances does not comfortably sit within the confines of this research aim and objectives, and the adoption of an alternative will undermine the goal of the study. As a consequence, the pragmatic approach allows case study design strategy which involves several sources of evidence in a cross-sectional research study; and because of this, different analytical instruments are permitted for qualitative and quantitative data analyses.

This study looked into pre-service teachers' reflectivity in teacher education through an in-depth exploration and explanation of those events that affected the implementation of reflective teaching practices in pre-service secondary school teacher training programme. Thus, the researcher focused on the investigations of reflective teaching practices of the pre-service teachers as an outcome of their grooming and teaching practice experience.

Consequently, in this work, an attempt to see the dynamics of developing pre-service secondary school teachers for reflective teaching in the Ethiopian context was considered indispensable to do so from the participants' practices. Essentially, the researcher wanted to ascertain out how the reflective teaching practices in the existing secondary school teacher training is being carried out and what should be done to ameliorate the state of affairs. In other words, the "what" and " how" of the reflective teacher know-how in the existing teacher education programme, through participants' perceptions, experiences, explanations, and opinions, and the results of their exposures to reflective teaching practice.

4.3.1.2 The rationalizations for selecting the pragmatic paradigm

As suggested above, this study utilizes the pragmatic paradigm to guide the research. Numerous justifications have been well thought-out by the researcher before deciding pragmatism as the paradigm for the study. To start with, the pragmatic paradigm gives the researcher opportunity to employ different methods, strategies, and procedure to guarantee there is sufficiency and wholeness in the manner in which the research question is answered (Creswell, 2009). Concerning how teacher education institutions implement reflective teaching within the guiding principles of the current pre-service teacher education curriculum framework (MoE, 2009). Next, by permitting the utilization of both quantitative and qualitative methods, pragmatism enables the researcher basically look at the prevailing conditions in which the teacher education institutions execute the reflective teacher education curriculum in order to have the capacity to think of rich information that can be utilized support effective reflective teaching implementation. Finally, utilization of two research methods to complement each other took into consideration in this paradigm gives rich ground to the thinking of validity and unquestioned research discoveries that can be utilized to viably answer the research question of the study.

4.3.2 Research approach

Research advances are planned and the procedures for research that span the steps from broad assumptions to detailed methods of information collection, analytic thinking, and interpretation (Creswell, 2009). Approaches to research fall within two major traditions which can be picked out on the unrivalled hand, by differing viewpoints about the use and placement of theory, and on the other, by the relationship to, and sequence of, events and natural processes which are involved (Coleman & Briggs, 2002). One tradition proposes that all relevant information must be gathered before the analysis starts out, whereas the other interweaves data collection with ongoing analysis. The knowledge claims, the strategies, and the method all contribute to a research approach that tends to be more quantitative, qualitative or mixed (Creswell, 2002).

Table 4.2: Key characteristics of qualitative, quantitative and mixed approaches (Adapted from Creswell, 2012)

Aspects	Quantitative	Qualitative	Mixed
Ontology	Postpositive knowledge claims	Constructivist knowledge claims	Pragmatic knowledge claims
Methodological Assumption	Deductive process	Inductive process	Either or both
Inquiry approach	Experiments and surveys	Narratives, phenomenologies, ethnographies, grounded theory studies, or case studies	Either or both
Data collection	Collect data on predetermined instruments that yield statistics data.	Collects open-ended, emerging data with the primary intent of developing themes from the data.	Gathering both numeric information as well as textual data.
Researcher position	Value free	Value laden	Either or both
Sampling Strategy	Random	Non-random	Either or both
Data analysis	Uses standardized instruments to measure central tendencies and variation statistically, test hypothesis	Looks for themes and patterns across case studies, theory emerges from the events	Either or both

The mixed methods approach was chosen for this investigation because it was valuable to get the best of both quantitative and qualitative approaches. It was fixated on esteeming both the outcomes (i.e., quantitative) comparable the process (i.e., qualitative), so that “an intricate” picture of social phenomenon could be developed (Tashakkori & Teddlie, 2010; Creswell, 2012). Further details about the mixed approach are explained below.

4.3.2.1 Mixed methods approach

This investigation utilizes a mixed methods approach. A mixed method research is characterized as a sort of research in which a researcher consolidates components of quantitative and subjective research approaches (Creswell & Plano Clark, 2011; Onwuegbuzie & Johnson, 2006; Creswell, 2012). Mixed methods approach has been seen as increasing the value of to this research by joining diverse techniques for data collection together to enhance the discoveries of the investigation. The quantitative approach of this investigation was used to get numerical information from the respondents about the reflective teaching and learning practices in the pre-service teacher education. Then again, the qualitative approach was connected to discover data that catches the distinctive areas of the participants' encounters, implications, qualities, and convictions with respect to reflective teaching practices. It is thus that the researcher picked the mixed methods approach in the present investigation.

The mixed methods research was grounded on a pragmatic paradigm which is a theoretical framework for most mixed research approaches (Creswell, 2012). On the foundation of this pragmatism, the research has employed a mixed method approach, which is a process for collecting, analysing, and "mixing" both quantitative and qualitative methods in a single subject or a series of studies to understand a research problem (Creswell & Plano Clark, 2011; Bryman, 2006). The basic premise is that the roles of both quantitative and qualitative methods, in combination, provide a better discernment of the research problem and question than either method by itself (Mertens, 2007). Further, mixed-methods research represents an effort to travel beyond the ideological clashes between qualitative and quantitative purists and instead concentrates on the pragmatic value of each approach. The pragmatic rule posits that the value of any given research methodology is grounded entirely on its empirical and practical efficacy (Johnson & Onwuegbuzie, 2004).

The full reasons for linking quantitative and qualitative data include triangulation, complementarity, development, introduction, and expansion (Bryman, 2006; Tashakkori & Teddli, 2010). Triangulation enables confirmation, convergence,

corroboration, and correspondence of results from the different methods, while complementary seeks elaboration, enhancement, illustration, and clarification of the resolutions from one method with the results from the other method. Mixed methods approach contains two dimensions, namely time order and paradigm emphasis (Creswell, 2012:541). The time order refers to concurrent versus sequential, while the pragmatism refers to equal status versus dominant status. In mixed methods approach the quantitative (QUAN) and qualitative (qual) data collection are concurrent with the aim to counteract the weaknesses inherent to one method with the strengths of the other (Creswell, 2012; Creswell & Plano Clark, 2011).

Creswell and Plano Clark (2011) distinguished six noteworthy methods of mixed methods: sequential explanatory, sequential exploratory, sequential transformative, concurrent triangulation, concurrent nested and concurrent transformative. For this study, the parallel triangulation research design that assumes a QUAN-qual approach is used.

4.3.2.2 The parallel triangulation design

In this research, the parallel triangulation design otherwise called concurrent triangulation design in which the quantitative (QUAN) and qualitative (qual) phases of the investigation are completed to ensure that the weaknesses of one method are compensated by the strengths of the other method (Creswell, 2012). Besides, the main quality of parallel triangulation research design for this research is that by utilizing the two research strategies, it takes into consideration the accumulation of extensive data, sufficiently satisfactory to the research questions with respect to how the teacher education institutions execute the reflective teaching practices within the curriculum framework.

As indicated by Creswell and Plank Clark (2011), utilization of parallel triangulation design empowers the elucidation of research discoveries to either recognize dimensions of data convergence as a method for approving knowledge claims of the research or distinguish dimensions of dissimilarity of research findings in order to utilize this disparity as a reason for future research on how teacher education

institutions actualize reflective teaching curriculum programme. Furthermore, the essential standard for this design was that solitary data gathering supplies strengths to counterbalance the shortcomings of the other frame and that an entire comprehension of an examination issue comes about because of gathering both quantitative and qualitative data (Creswell & Plano Clark, 2011; Creswell, 2012). The triangulation of both QUAN and qual data will be done at the analysis phase of the investigation. In addition, this approach was advantageous in educational research as covering methods could give correlative information while reducing the likelihood of blunders (Johnston & Christensen, 2000).

The mixed methods approach in this study is fundamentally of parallel triangulation design. By utilizing the parallel triangulation design in the mixed methods approach, the essential aim is confirmatory, corroboration or cross-validation (Tashakkori & Teddlie, 2009). In this study, qualitative results will be used to validate quantitative results with regards to how the reflective teacher education curriculum is implemented in teacher education institutions. In the context of the present study, the parallel triangulation design guarantees that the shortcoming of utilizing the individual and group interviews when assessing how reflective teaching practice is implemented in a teacher education curriculum framework are compensated for by the strengths of the structured questionnaire. Such a design will empower the researcher to come up with more valid and substantiated research findings (Creswell, 2012).

4.3.3 Research strategy

A research strategy is a general plan for conducting a research that has distinguished features, clear objectives taken from the research questions which stipulate the sources from which the researcher plans to gather data and which takes into account, the barriers the researcher might embrace the accessibility of data, sufficiency of time, propinquity of settings and availability of resources (Johannesson, 2014). In view of this, this study utilized a case research strategy.

Case study research has gained considerable acknowledgements as a research strategy, as a result of Yin's unflattering position that case research can be viewed as a distinguished and comprehensive strategy with its own investigation design (Yin, 2014). Additionally, Yin (2014), in his recent work, ascertained that case study research remained a definitive guide and discussed on how to design more rigorous and methodologically stable case studies that will face to questions of validity and reliability. Significantly, Yin figures out to link theory and practice by exhibiting the breadth of case study research at a practical level. It is Yin's view that, when "the process has been given careful consideration, the potential outcome is the production of a high-quality case study" (Yin, 2014:199).

Case study research strategy represents a much wider perspective, taking an empirical investigation of a contemporary phenomenon within its natural context using multiple sources of evidence (Yin, 2003). The matters of case study research vary widely. For example, case studies of events, persons, procedures, institutions, social groups, and other contemporary phenomena have been completed (Hancock & Algozzine, 2006:15). Nearby (2009:353) also remarks that case study provides views from constituting components- from implementation sites, from programme perspectives and faculty, from partners. By looking into the encounters and impressions within the setting, a case research strategy is served and comprehension of the occasion is allowed an understanding that supports policy making. In this study, understanding of the phenomenon is accomplished through distinguishing and rendering the teacher educators', pre-service teachers, and cooperating teachers' experiences of the reflective teaching practices in the existing secondary school teacher education curriculum framework.

Case study research aims can be grounded on their roles, features, or disciplinary perspective. One's selection of a research design is determined by how well it allows a full investigation of a particular research question (Hancock & Algozzine, 2006).

Of the various ways for managing about the case research strategy, in the contemporary literature, the three key approaches to inspect the case research strategy in educational research are recognized by the Stake, Merriam, and Yin

(Yazan, 2015). The case research strategies identified by these scholars try to ensure that the subject of interest is easily explored, and that the heart of the phenomenon is discovered, but the methods that they each employ are quite different (Baxter & Jack, 2008).

Yin (2003) takes that case study may be based on any mixture of quantitative and qualitative evidence (Yin, 2003). The triangulation of all information, both qualitative and quantitative, should lead to a credible understanding of the case (Yin, 2003). Thus, the combination of quantitative and qualitative evidentiary sources can be considered equally instrumental, whereas Stake and Merriam suggest the single purpose of qualitative data (Yazan, 2015).

In this study, the case study strategy developed by Yin has been chosen. A comprehensive and systematic outline for undertaking the design and conduct of a case study is presented in an exceptionally clear (Yin, 2014). However, Yin contends that case study research is a challenging endeavour that pivots upon the researcher's skills and mastery. Thus, the case study researcher should maximize the four conditions related to design quality: construct validity, internal validity, external validity, and reliability, which dispense with the faces of quality control and is highly crucial in every measure of the case study research. The maximization of these conditions in every phase of the research process is incumbent upon researchers who desire to develop rigorous and robust case study. He, therefore, advises that case study researcher plans these "least well-developed components" very conscientiously and rigorously in order that their enquiry has a firm basis for the analytic operations (Yin, 2002:19-26).

In relation to these components, Yin emphasizes the requirements that the researcher reviews the relevant literature and includes theoretical propositions regarding the case under study before setting forth to transmit any data collection, which recognises it from such strategies as grounded theory and ethnography (Yin, 2014). In making the final determination regarding the case research strategy, pilot study is advisable. In this formulation, he highlights particularly the pilot case study that will serve the researcher to rectify the data collection with regard to both the

substance of the data and the procedures to be followed and be able to achieve the objective of the investigation in the most approximated one (Yin, 2002).

Yin places considerable emphasis on formulation of a detailed design at the beginning of the research and suggest that investigators make minor modifications in the plan after they begin data collection. Even so, if they need to make major adjustments, from Yin's perspective, researchers are supposed to get back to the first step of the conceptualization and start over to design the study (Yin, 2002). From a Yinian perspective, researchers call for highly structured analytic guidelines and principles because the case study as a research strategy is yet evolving and suffers from the paucity of well-defined strategies and techniques.

This investigation utilized the descriptive case research strategy. Descriptive research strategy is concerned about discovering what is and is intended to depict a behaviour or kind of subject as opposed to search for any particular connections among factors (Creswell, 2009; 2012). As descriptive case study is an attempt to present a complete depiction of a phenomenon within its specific circumstance, descriptive case study is utilized to build up a document that fully lights up the intricacies of an experience (Yin, 2009). These are often used to submit solutions to a series of questions based on theoretical constructs and used to describe an intercession or phenomenon and the real-life setting in which it happened (Yin, 2009).

Yin (2009) depicts that the case can be contemplated with one of three sorts of case subjects, contingent upon the purpose: exploratory case studies, explanatory case studies, and descriptive case studies. Exploratory case studies look to characterize research questions of a subsequent study or to get out the attainability of research procedures. These conceptions are frequently a prelude to extra research endeavours and involve fieldwork and data gathering are ensured before the final definition of study questions and speculations (Yin, 2009).

The descriptive case study case was chosen for this study because it was a compelling strategy for investigating the practices and experiences related to

reflective teaching in the pre-service teacher education under this topic. The researcher has utilized descriptive case study strategy; which was discovered appropriate with regards to the context of the current research. Since this study is descriptive in nature and the case convention included discussion questions based on the theoretical framework laid in the start of the investigation (Yin, 2012). This case study tries to present an entire portrayal of the phenomenon within its context (Yazan, 2015:148).

Finally, the descriptive case study was selected for this examination for two important grounds. First, one of the goals of all case study research is to gain an understanding of the restricted framework. In this research, the main purpose was to get a comprehension of reflective teaching practices in a typical pre-service teacher preparation institution. Second, descriptive case studies answer questions based on theory. The descriptions of reflective teaching developed throughout the inquiry process will serve to set the theoretical constructs under which the reflective teaching programme operates. The next sections discuss the research methods utilized for this investigation concerning the reflective teaching practices.

4.4 RESEARCH METHODS

This part discusses the procedures used to select the research participants and the techniques used to gather data and analyze the research results. It begins by giving illumination of research participants and afterward goes further to give an enunciation of the sampling techniques that are utilized in the investigation.

4.4.1 Selection of participants

As mentioned earlier, the methodology for this inquiry was a case research about the reflective teaching practices within a typical teacher education institution using three distinct participants, to be specific the teacher educators, pre-service teachers, and cooperating teachers. This group is referred to as the 'target population' or 'universe', or the people around whom the researcher gets the kick out of the chance to pursue the investigation (Ary, et al., 2009). For a research to be sound,

appropriate sampling strategies should be put forward clearly and that the sampling techniques and basis for their utilization should be clarified (Meyrick, 2006). Therefore, this section provided the details of the participants and explained how and why both the probability and non-probability sampling techniques were used to make samples for data aggregation. Table 4.3 shows the sample size.

Table 4.3: Research Target Population

Population	Male	Female	Total
Teacher Educators	33	7	40
Pre-service Teachers	129	18	147
Cooperating Teachers	29	8	37
Total	191	33	224

As indicated in the Table 4.3, the target population was comprised of forty (40) teacher educators, hundred forty-seven (147) pre-service teachers, and thirty-seven (37) cooperative teachers; totalling two hundred twenty-four (224) potential participants.

After distinguishing the target population, it was important to select the samples from which the data to be gathered. A sample is a group of elements or an individual component from which data are acquired (Creswell, 2009:230-241). Sampling is the process of drawing representatives from the population. This calls for selecting units of examination in a mode that augments the researcher's competence to serve the research questions (Tashakkori & Teddlie, 2003).

4.4.2 Sampling in mixed methods research

In the use of mixed methods, sampling requires an understanding and affirmation of the sampling procedures that occur in QUAN and QUAL researches. Probability sampling methods are used most often in QUAN research to obtain a sample that most precisely speaks the whole population. Purposive sampling techniques, on the other hand, are used mainly in QUAL research to select participants or other units of the investigation who can give data that will address the research questions. Since

sampling techniques for mixed methods incorporate selecting participants using both probability and non-probability sampling methods, thus, the sampling included the characteristics of the requirements for the probability and purposive sampling procedures. Combining sampling techniques for QUAL and QUAN methods are normally made before the work begins; however, sequential mixed designs may result in the penury to make sampling decisions during the investigation (Taddlie & Tashakkori, 2009).

Besides, selecting the sampling strategy and sample estimates in a mixed sampling design involves selecting for both the quantitative and qualitative components of the research part within the mixed sampling framework (Onwuegbuzie & Collins, 2007: 281-316). Henceforth, both the random and non-random sampling methods can be applied in quantitative and qualitative studies respectively (Onwuegbuzie & Leech, 2005a). In fact, the mixed methods sampling process considers the seven particular steps; these include (a) decide the aim of the study, (b) formulate the research objective(s), (c) determine the research purpose, (d) determine the research question(s), (e) select the research design, (f) select the sampling design, and (g) select the sampling scheme (Onwuegbuzie & Collins, 2007).

For this study, thus, both the probability and non-probability sampling methods were employed to attract potential participants for the cogitation. The probability sampling was consulted to choose representative samples for statistical analyses. On the other hand, the non-probability sample was utilized for the qualitative part of this study (Creswell, 2003).

Table 4.4 shows the population of the pre-service teachers. The pre-service teachers' cohort for this study is described by participants' department and gender information in order to inform regarding pre-service teachers' reflective preparation within the reflective teacher education framework.

Table 4.4: Population of the pre-service teachers

Department	Gender		Total
	Male	Female	
Afaan Oromo	15	5	20
Biology	32	6	38
Chemistry	27	4	31
Civics and Ethical Education	4	0	4
Health and Physical Education	13	3	16
Mathematics	23	0	23
Physics	15	0	15
Total	129	18	147

From table 4.4, it is shown that the population is comprised of 147 pre-service teachers in seven different departments. Out of which, 129 pre-service teachers are male and 18 pre-service teachers are female candidates.

On the other hand, Table 4.5 indicates the actual research participants of the study. The table provided the name of research respondents and their gender compositions in order to collect adequate data for the issue under this research from various perspectives.

Table 4.5: Selected Respondents

Name of the Respondents	Male	Female	Total	Tools used
Teacher Educators	6	2	8	Individual Interviews
Pre-service teachers	112	15	127	Questionnaire & Group Interviews
Cooperating Teachers	8	4	12	Group Interviews
Total	126	21	147	

In Table 4.5, it is shown that out of the 224 potential participants (4.4.1), 147 members in their different categories were selected for the actual data gathering procedures. In this case study, both the probability and the non-probability

sampling techniques were employed. And simple random method was applied to select the pre-service teachers for quantitative information. Conversely, the purposive sampling methods were utilized to choose the participants for the qualitative research.

Furthermore, while analyzing Table 4.5, it is discovered that out of the 40 teacher educators, eight of them were taken for individual interviews purposefully on the basis of their assumed knowledge and experiences. Besides, quota sampling was applied to identify six male and two female teacher educators, which proportionate gender balance within the teacher educators' population. Alternatively, out of the potential 147 pre-service teachers, 127 of them were selected using simple random method for questionnaire to gather quantitative data. In addition, 12 pre-service teachers were chosen for two focus group interviews being pre-service teachers' reflective teaching practicum representatives. Finally, out of the potential the 37 cooperating teachers, 12 of them were purposefully chosen for participation in two focus group interviews by considering their exposures and experiences for reflective teaching practicum support.

4.4.3 Data collection

To investigate and enhance pre-service teachers' development for reflective teaching within the context of the pre-service teacher training activities, a number of data gathering techniques may appear to be possible. Data collection is portrayed as the procedure of disciplined inquiry through gathering of empirical data. Knowledge of its methods and instruments is employed in the operation of getting relevant data from all respondents in the sample of the investigation (Best & Khan, 2003). Within educational research, the scope of techniques commonly utilized for gathering quantitative and qualitative data includes, journals, narratives, questionnaires, interviews, and discussions (Denzin & Lincoln, 2011; Denscombe, 2003; Opie, 2004).

In mixed methods, researchers utilize techniques that are equivalent as those employed by researchers engaged just QUAN inquire and by those engaged just in QUAL research. That is, mixed method researchers used strategies such as

observations, unobtrusive measures, focus group discussions, consultations, questionnaires and tests (Johnson & Turner, 2003; Taddlie & Tashakkori, 2009). This requires having an understanding of both QUAN and QUAL data collection plans. When used in mixed method researches, the strategies specified clearly require a blending or consolidating to move over the data that researchers are endeavouring to get (Johnson & Turner, 2003; Taddlie & Tashakkori, 2009).

Data collection of case studies relies on different sources of evidence (Yin, 2014). Mabry (2009:384) also suggests capturing multiple perspectives, case studies more commonly employ qualitative or mixed methods than quantitative methods alone. Broadly, Yin (2002:90) provides the three overarching principles essential for data collection in case study research; (a) multiple methods; (b) a formal gathering of the evidence; and (c) a chain of evidence from the questions to the data and to the conclusions drawn. Considering these standards into a case study considerably improves the quality of the study (Yin, 2002:90). To comprehend pre-service teachers' desires, the level of involvement, factors affecting their engagements in the reflective teaching tasks, this study employed questionnaires, individual interviews, focus group interviews, and document reviews. The following sections, discuss the tools used for data gathering for this study in detail.

4.4.3.1 Questionnaire

The questionnaire is a well-established tool within social science research for gaining social characteristics, present and past conduct, and norms of behaviours, attitudes, opinions and explanations behind activity with regard to the subject under scrutiny (Bulmer, 2004:354). It is recognized that questionnaires have been the most frequently used research technique for investigating the opinions and views in educational inquiry. In this study, self-developed structured questionnaire was employed as a means of accumulating data in respect of various factors which are then examined to perceive forms and associations. Since case study can be utilized for elucidating purposes to offer information about the event and distribution of a broad scope of individual attributes and interpretive purposes to offer insights and possible clarifications to clear up what has been described (Robson, 2002). The way

in which items are constructed is of impressive significance to the potency of a questionnaire (Creswell, 2009). Despite a questionnaire can incorporate several interrogatives, the questionnaire in view used the closed questions (Creswell, 2009; Bell, 2005).

As a result, the questionnaire comprised of a series of questions to which pre-serving teachers are expected to express their agreements and/or disagreements against the assessment scale. The sections were labelled:

Section 1: Teacher educators' role in introducing the reflective teaching.

Section 2: Cooperating teachers' roles in the reflective teaching practicum.

Section 3: Experiences with reflective tools.

Section 4: Reflective teaching efficacy.

Section 5: Perceptions of reflection.

Section 6: Factors influencing reflective teaching development.

Section 7: Practical solutions to the factors that influenced the ongoing growth of pre-service teachers' reflective teaching.

The primary aim of the questionnaire was to assemble quantitative information. The conceptual and theoretical frameworks of the study provided the bases for building up the questionnaire. A pilot study was undertaken to assess the validity and reliability of the questionnaire with a populace that exhibited comparative characteristics to those for whom the questionnaire was intended.

This was one means through which event of potential vagueness between the researcher's interpretation of each query and those perceived by others could be held to anchor internal reliability and validity (Denscombe, 2003; Hopkins, 2002). This operation was made to ensure the questionnaire fit for function and measured what it claimed to measure and the degree to which results got could be repeated (Bell, 2005; Opie, 2004). Finally, the questionnaire was administered to chosen pre-service teachers (Appendix A). In view of these multiple data sources, the results were triangulated to build the trustworthiness of the findings (Patton, 2002; McMillan & Schumacher, 2010).

4.4.3.2 Individual interviews

The interview is a two-way conversation initiated by the researcher for the particular utilization of obtaining research linked data and to find out the thoughts, suppositions, and perceptions of the respondents. Interviews enable people to convey to others a situation from their own side and in their own words (Cohen, et al., 2007; Creswell, 2012; Taddlie & Tashakkori, 2009; Yin, 2004). The interview is seen as a standout amongst the most vital sources of case study data (Yin, 2014). In a similar manner, interviews have been used widely for data aggregation across all fields of the social sciences and are basically the most indecent strain of data gathering tool in qualitative studies in education (Best & Khan, 2003).

A semi-structured interview has the advantage of allowing interviewers to probe, adding depth to the probe, and clearing up misconceptions. It is more manageable during the interview as the researcher asks some questions that are closed and some that are open ended so as to gather more in-depth data about the event under this study (Creswell, 2002, Punch, 2005). In this study, semi-structured interview schedule was developed and administered to the selected teacher educators.

The main use of the semi-structured interviews for teacher educators was to find out the initiatives the teacher education institution put in place for pre-service teachers' reflective teaching development. In this regards, the semi-structured interviews would obtain critical information concerning the teacher educators' personal outlooks and implications about the current reflective teaching practices in the teacher training programme.

Furthermore, the utilization of the semi-structured individual interviews with the eight teacher educators was also to demonstrate how the teacher educators nurture and support the pre-service teachers for reflective teaching practices and their insights about what could be used to amend the reflective teaching practice in the present teacher training programme. Face-to-face interviews on a one-to-one basis with the selected teacher educators were conveyed at the teacher education institution. Interviews were recorded and those notes were made. Each interview session took

between 50 to 60 minutes to make certain broad conversation between the interviewer and interviewee.

4.4.3.3 Focus group interviews

Focus group interviews are mainly a gathering of interviewees for qualitative data. It is an imperative instrument for discovery and investigation (Vaughn, et al., 1996; Andrews, 2003). Focus group interviews are described as organized group discussions which are focused around a single topic. Focus group interviews can assist in explaining how and why people envision or feel the fashion they do (Vaughn, et al., 1996). They are group discourses sorted out to explore a peculiar lot of issue driven by the researcher (Listosseliti, 2003; Kitzinger, 2005). It includes meeting several individuals for deliberate questioning in either a formal or informal context (Fontana & Frey, 2000:385).

Focus group interviews are also conducted to generate a change of perspectives and increment certainty as a guide for triangulation purposes by putting individual responses into setting (Patton, 2002; Fontana & Frey, 2000). Nevertheless, it is intimated that when one prefers to utilize focus group interviews, the individuals in the group ought to comprise participants who share similar foundations and experiences to create normal conversation that address in depth the selected themes (Vaughn, et al., 1996).

In light of these overviews, the researcher utilized the focus group interviews to enable the pre-service and cooperating teachers to discuss and share their incidences and to feature the idea of reflective teaching in the pre-service teacher education programme. The focus group interviews were carried with six members each for both the pre-service teachers and cooperating teachers. The focus group interviews were based along the research questions formulated to extract information with respect to the pre-service teachers' encounters and capacities for reflective teaching. In the context of the present research, the group interviewees allowed the researcher to capture their viewpoints and experiences on the issue under investigation.

Finally, data were entered by holding notes of answers that the responses were capable in attending the investigation questions. Each focus group interview took two hours and was tape recorded.

4.4.3.4 Document reviews

In educational research, documents are frequently employed as a method of triangulating data from other sources and can be utilized to supplement information gathered by other research techniques when the reliability of data collected from questionnaires or interviews is checked (Bell, 2005). Since documents present rich sources of materials for analysis, they can likewise function both as the main witnesses for the researcher's conclusions to supplement data from other sources; and also checking, confirming, and augmenting the validity of information in which in turn contributes to data triangulations (Creswell, 2012).

Archives can be classified as either individual or public and might be composed and other materials from institutional, clinical, or programme records; memoranda and written correspondence; official publications and stories; personal diaries, letters, artistic works, photos, and memorabilia; and written answers to open-ended studies (Pole & Lampard, 2002; Patton, 2002). The text files provide two types of information: witting and unwitting. Witting proof is data the author expected to pass whereas unwitting evidence can be gathered from the document because to the dialect, oversight or style the author had not really destined to convey (Robson, 2002).

Document analysis is an indirect as opposed to an immediate research method that can suffice to enrich and heighten the impacts got through questionnaires, interviews, and focus groups, and triangulate results with review findings (Patton, 2002:294). Hence, determination among documents for review is necessary and relies upon the designs and parameters of the enquiry.

In this work, the pertinent content documents were received and broken down. The document included the teacher education curriculum framework developed for

reflective teaching preparation in the current teacher education programme in Ethiopia was compiled and dissected. The document investigation was taken to discover out about the curriculum aims for reflective teaching and contents distinguished for such training over the span of the study.

4.4.4 Data analysis

This section discusses the methods for data analysis for both the QUAN and qual phases of the analyses. Mixed methods require knowledge of schemes employed to analyse QUAN and qual data (Teddlie & Tashakkori, 2010; Creswell, 2012). In this study, the QUAN data were analysed using quantitative techniques, using both the descriptive and inferential statistics. Descriptive statistic summarizes the data to permit researcher better understand the information patterns. Inferential techniques, on the other hand, are normally used to test speculations and further look at the descriptive statistics' results (Onwuegbuzie & Teddlie, 2003).

Conversely, qual data analysis requires an inductive process in which the researcher works to address the research questions (Green & Thorogood, 2009). There are numerous methods of analysing qualitative data. It comprises three simultaneous flows of natural processes, in other words, data reduction, data display and interpretation or conclusion drawing (Miles & Huberman, 1994).

The scholars advised researchers to see behind the scheme in order to search out what is valuable in their own work (Miles & Huberman, 1994:5, Green & Thorogood, 2009). The usual approaches to qual data analysis are: thematic content analysis, established theory, framework analysis, and narrative analysis (Coffery & Atkinson, 1996; Green & Thorogood, 2009). The most basic, and might be the most commonly utilized in qualitative research analysis is the narrative analysis. Applying this approach, the qualitative views were narrated to support the quantitative effects of the research questions. Thus, Quantitative and qualitative analyses were performed concurrently.

Mixed methods data analyses involve QUAN and qual data analyses that are united, associated, or integrated in research studies (Taddlie & Tashakkori, 2009). There are numerous categories of mixed research data analysis strategies. These include: parallel, sequential, conversation, and multilevel mixed data analysis (Creswell & Clark, 2011; Onwuegbuzie & Teddlie, 2003; Taddlie & Tashakkori, 2009; Creswell, 2012; Creswell, 2009).

The parallel data analysis scheme was chosen for this work as it assisted the researcher collected both quantitative and qualitative data simultaneously and after that contrasted the two databases to see if there was a convergence, differences, or some mix. A few sources refer to this comparison as confirmation, disconfirmation, cross-validation, or corroboration (Greene, 2007; Taddlie & Tashakkori, 2009; Creswell, 2012). The following sections described how data derived from queries on the questionnaire, individual interviews, focus group interviews, and documents were coded and categorised to help facilitate subsequent analysis.

The parallel mixed data analysis involves QUAN analysis of information using statistical techniques for the variables, and qual analysis of data using qualitative analysis approaches appropriate for the data and the research questions. The two analyses were conducted independent of each other and provided information about the phenomenon through connecting, combining, or incorporating the findings from the QUAN analysis and from the qual analysis (Creswell, 2012; Creswell & Clark, 2011; Onwuegbuzie & Teddlie, 2003; Taddlie & Tashakkori, 2009).

One way was to provide a discussion - in, a side - by - side analysis - about the ideas emerging from the data and how they support or refute the statistical analysis the researcher might then compare the two sources of information to fix if the interviews supported the questionnaire results. Some other approach was to combine the qualitative and quantitative information to arrive at new variables or new ideas for further testing or exploration.

A final approach was to immediately compare the quantitative outcomes and the qualitative findings in a table, a joint display (Creswell, 2012:550-553). In this work,

both the quantitative and qualitative data were mixed into either a whole or separate sets. Analysis of quantitative data was displayed first and then corroborated by qualitative data analysis in the form of text and inverted commas.

4.4.4.1 Analysis of quantitative data

In this research, both descriptive and inferential statistics were used to analyse QUAN data. As per Creswell (2012), the reason for utilizing descriptive statistics is to summarize data to enable the researcher to comprehend the patterns that arise. As a major aspect of descriptive statistics, instruments such as tables, mean, and percentage were utilized to abridge data in the present study concerning how teacher education institutions implement reflective teaching in the existing pre-service teacher education programme. Through the use of descriptive statistics, pre-service teachers' perceived reflective engagement, the barriers, and areas of improvement were summarized. On the other hand, the parametric statistical tools were utilized to analyse the QUAN data as part of the inferential statistics. For this case, the analysis of variance (ANOVA) and the T-test were used for QUAN data analysis.

Evidences derived from the questionnaire was analysed using statistical processes. Frequency of occurrence in mutually exclusive categorical data sets such as Strongly Agree – Agree – Undecided- Disagree – Strongly Disagree were tallied and the percentage across the population who chose each answer was computed for similar purposes. The motivation behind of descriptive statistics enabled large quantities of information to be displayed in a straightforward way using tables and graphs. The data provided an ample source of descriptive statistics and insights. The descriptive statistics presented synopses of the whole participants (n=100) about their impressions and positions concerning the reflective teaching experiences. The analysis was enhanced through the provisions of a measure of central tendency.

4.4.4.2 Analysis of qualitative data

Narrative analysis of qualitative data was attempted to add on the quantitative results for each inquiry (Denscombe, 2003; Denzin & Lincoln, 2012; Creswell, 2003; Henning, 2004; Le Compte, 2000). The procedure of narration of the qualitative includes a few particular strategies that stressed that to discernments go into the participants' real perceptions and must go into a meaningful descriptive synthesis of the case (McMillan & Schumacher, 2001). The reason for the narrative analysis of qualitative data analysis was to yield vital and appropriate response to the research questions.

The verbatim accounts of the interviews were deciphered. Different categories pertaining to the investigation formed and information from individual interviews, focus group interviews, and content reviews were analysed according to the subjects. The researcher used the major strides of qualitative data analysis identified by qualitative researchers (Creswell, 2002; Marshall & Rosman, 2016). Data were transcribed by the researcher through making content from recorded interviews and composing them as word preparing documents. Thus, the transcribed data was utilized to either corroborate or disconfirm results from the quantitative stage of the study. Moreover, the identified narrations were classified in conformity to the guiding research questions according to the particular topics (see Chapter 1, section 1.5). Finally, in order to assure that the research study is credible at all points, attention was paid to validity and reliability in the quantitative and trustworthiness in qualitative research and research.

4.5 QUALITY FRAMEWORKS FOR MIXED METHODS RESEARCH

Evaluation of quantitative, qualitative, and mixed methods research has similar aims, although the details differ. In spite of the fact that the goal is to demonstrate that the results provide convincing proof adequate to serve the research questions. While doing mixed methods research, it is vital to try to revise the weaknesses of one method with the strengths of another technique. This is because the mixed methods study impacts every aspect, including the data collection methods, both quantitative

and qualitative data analysis, and interpretations, drawing together different perspectives on evidence (Onwuegbuzie & Johnson, 2006; Ongwuegbuzie, 2003). The investigation quality criteria in quantitative and qualitative research are granted as a synthesis of quality frameworks of mixed methods research. The evaluation criteria are described in detail in the accompanying subdivision.

4.5.1 Quantitative research criteria

This section examines the criteria used to achieve trustworthiness for quantitative research. For quantitative researches, the criteria utilized to ascertain trustworthiness include objectivity, reliability, and robustness of the instrument and generalizability of the findings.

Table 4.6 represents the criteria for determining the quality of quantitative research

Table 4.6: Quality criteria for judging quantitative research (Tashakkori & Teddlie, 2010)

Criteria	Description
Validity	The level to which the research and research tools measure what it is designated to be evaluated.
Reliability	The degree of consistency with which a research tool measures what it is said to assess. The findings are applicable or repeatable.
Objectivity	Researcher limits bias and interaction with participants.
Generalizability	The degree to which we can infer the findings from the research sample to the population.

4.5.1.1 Reliability

Reliability is viewed as a measure of how steady the discoveries depend on the technique for data gathering and analysis utilized in a study (Tashakkori & Teddlie, 2010). In addition, reliability is characterized as the constancy of the study results or the degree to which the research could be rehashed while getting similar outcomes.

Reliability of scores is associated with the tools employed, or whether a similar outcome is inferred on repeated trials, is also a significant consideration (Tashakkori & Teddlie, 2010). Tashakkori and Teddlie (2010) contend that reliability is a marker of inward consistency. In this research, reliability was estimated through the internal consistency reliability estimate. Cronbach's alpha (α) is the most widely recognized measure of reliability. It is most normally utilized when the research employs multiple Likert inquiries in a study that frame a scale and researcher desire to decide whether the scale is dependable (Tashakkori & Teddlie, 2010; Griffith, 2015). The Cronbach's alpha of the questionnaire was 0.836. Accordingly, the Cronbach's alpha of 0.7 or greater is indicative of a high internal consistency of the instrument for the purpose of establishing the reliability of the research tool (George & Mallery, 2003; Dennick, 2011; Griffith, 2015).

4.5.1.2 Validity

Validity of a research is referred as the exactness of a measure or the degree to which the finding honestly speaks to the issue (Tashakkori & Teddlie, 2010). Creswell (2012) alludes to the validity as the level to which questions on the data gathering tool and scores from these items signify all probable questions that could be raised about the content. It ensures that the questionnaire incorporates sufficient set of items that tap the concept. Tashakkori and Teddlie (2010) likewise ascertain that the measure appears to be assessing the indented construct under study. Hence, conclusions of studies are facilitated by reporting the validity, or whether the instrument used to really gauge the factors or theory it claims (Tashakkori & Teddlie, 2010). There is no factual test to decide if a measure enough covers a content area, content validity more often relies upon the judgement of experts in the field. As a result, the unclear can be revised, and the insufficient and non-functioning questions can be disposed of by the guidance of the reviewers.

With regards to the present research which looks to set up how TEIs put in place reflective teaching, content validity was tried. Content validity identifies with the assurance of whether the items in a measuring tool include every one of the aspects of the study (Tashakkori and Teddlie, 2009). To guarantee content validity in this research, the individual and group interviews guide was extracted from 157

recognized subthemes of the study that incorporate the nature and characteristics of reflection, reflective practice, and reflective teaching, factors influencing reflective teaching practices within the present pre-service teacher education programme, and areas of improvement for better reflective teaching practices in the TEI. Additionally, the researcher utilized the expert opinions to guarantee that the items in the data gathering tools secure a wide range of related substance about reflective teaching execution, it accentuated relevant contents are utilized with clear items that can gauge the ideal part of the study. Furthermore, the questionnaire that was used to measure the pre-service teachers' views of reflective teaching engagements in the pre-service secondary school teacher education programme in relation to the theoretical constructs recommended in the literature was checked. Finally, suggestions from the experts were integrated into account in the last data gathering tools.

4.6 MEASURES FOR TRUSTWORTHINESS OF QUALITATIVE RESEARCH

This case research study depended on understanding a real-life phenomenon, pre-service teachers' commitment with reflective teaching practices. Nonetheless, in order to persuade informed readers about the value of the results, the researcher needs to address concerns of trustworthiness in an ethical way (Schwandt, et al., 2007). Trustworthiness is seen as the degree of trust that the researcher has in the qualitative data an discoveries are credible, transferable and dependable (Schwandt, et al., 2007). Trustworthiness was a term proposed for the 'goodness of fit criteria which parallels the term meticulousness in quantitative research (Patton, 2015). It is about ensuring that research findings are precise and detailed as observed from the perspective of the researcher himself or herself, the participants and the readers (Creswell, 2009).

In request for the necessities of trustworthiness for this work, the researcher verified that he was unbiased in taking care of all the research exercises that were held out as easily as bringing into account of the participants' views. The collected data were additionally determined if the constructs, explanations, categories and versions that were produced were making sense and really contemplating the nature of the site that was being investigated. Various criteria can be put into a qualitative research to

achieve the trustworthiness of the findings. These included: credibility, transferability, dependability, and conformability (Schwandt, et al., 2007; Cannon & Boswell, 2011).

4.6.1 Credibility

Credibility, in inclination to internal validity, is one of the most critical factors in establishing trustworthiness and is about deciding how congruent the results are with the real world (Schwandt, et al., 2007; Roller & Lavrakas, 2015). Yin (2003) also views credibility as the exact identification and depiction of the phenomenon under investigation. It requires an assurance of whether the results of qualitative research are believable from the purpose of influence of the participants in the research process being done (Trochim, 2006).

In this investigation, credibility was addressed through utilizing different information gathering techniques, to be specific individual interviews, focus group interviews, and document reviews. As a result, data triangulation was believed to be accomplished through the utilization of multiple methods for data conglomeration. This is an attempt to find out whether we are observing and reporting conveys similar significance when found under various circumstances Stake (in Yazan, 2015). By using different methods, the target was to get accuracy of particular data items and that controlling the precision can only be through the multiple techniques of gathering data (Schwandt, et al., 2007).

4.6.2 Transferability

Transferability requires the researcher to give adequate data and context to empower the audience to figure out whether the findings can be applied to other positions and settings (Schwandt, et al., 2007; Roller & Lavrakas, 2015). According to the scholars, transferability of qualitative results can be achieved by providing thick descriptions to audiences on research about the settings, procedures, participants and researcher relationships (Schwandt, et al., 2007; Marshall & Rossman, 2016). In this investigation, the aspect of transferability was taken considered by offering detailed depictions of the research participants, data gathering instruments and research findings. This implied the researcher trusted

that the purpose of the research results could be connected to other comparable contexts and circumstances in Ethiopian and beyond.

4.6.3 Dependability

Reliability refers to having adequate points and corroboration of the methods applied with the goal that the work can be examined and reproduced (Schwandt, et al., 2007; Cannon & Boswell, 2011). The essential issue for dependability of a qualitative research is that the research conducted ought to be ordered across time, researchers, and analysis procedures (Gasson, 2004). To this end, the researcher used overlapping tools to gather data, namely individual interviews, focus group interviews, and document reviews.

4.6.4 Conformability

The concept of conformability in the qualitative investigation is a comparable concern to objectivity in quantitative research (Schwandt, et al., 2007; Cannon & Boswell, 2011). Conformability (in preference to objectivity) refers to guaranteeing that the investigations findings are the consequence of the experiences of the informants rather than the inclinations of the researcher(s) and can be obtained through an audit trail of the crude data, reminders, notes, data reduction and analysis (Schwandt, et al. 2007). Moreover, Schwandt, et al. (2007) think that the essential basis for conformability is the degree to which the researcher concedes his or her own predispositions, and addresses the publication that the results should represent, as far as possible, the marvel being investigated as opposed to the convictions, pet theories, or predispositions of the researcher (Gasson, 2004:93). Accordingly, in order to confirm conformability, one can easily track the qualitative data back to its original sources from the participants' reactions. In this study, both the individual focus group interviews responses were recorded. The following section, presented the ethical measures considered for this study.

4.7 ETHICAL MEASURES

Ethics are the moral standards by which we conduct ourselves. Researcher ethics are the ethical guidelines by which researchers behave. Thus, research ethics are the moral principles that govern research activity. In general, research ethics are the result of applying these broader principles to investigation (Allan & Love, 2010).

Prior to conducting this study, the researcher took precautions to guarantee the confidentiality and protect the anonymity of individual participants. The ethical position taken for this work is firmly informed by Bassey (2001) who advocates regard for majority rule, respect for truth, and respect for individuals. When gathering data, the researcher found out that the interviewee acknowledges what the investigation is about, its roles, and that her or his answers would be dealt privately (Bryman, 2001). In this regards, voluntary consent is ensured before the interview and every attempt was created to safeguard the anonymity and participants are assured that no unnecessary damage is done to the participants during the data aggregation procedure. In general, preceding this study, the researcher took precautions to guarantee the privacy and secure the namelessness of individual participants.

The following ethical considerations were expected to assure that ethical standards were followed throughout the inquiry procedure:

- Permit was received from the University of South Africa, UNISA, College of Education Research Ethics Review Committee (CEDU REC) to manage the study.
- Permit was gotten from the Dean of Institute of Education and Behavioural Sciences, Dilla University, to conduct the research at the Institute.
- The teacher educators, pre-service teachers, and cooperative teachers were informed about the purpose of the study. Moreover, the privacy of the research participants and consents were received from each research participant.

- The researcher followed the norm of professional conduct by assuming equal status with participants during the research while conducting the individual and focus group interviews.
- Throughout the research data collection procedure, care was taken that confidentiality and protection of participants were maintained. The participants were guaranteed that the information collected was going to be utilised for research purposes alone.
- The participants and participating schools were not recognized by name or compared with one another.
- Participants in the research study wilfully took part and had freedom of pulling out at any time without recrimination.
- In order for further check-up and confirmations, the data are kept in a dependable place.

4.8 CLOSING REMARKS

This chapter has discussed the research design and methods utilized. It was highlighted that both qualitative and quantitative tools were utilized to investigate the reflective teaching practices in the current pre-service secondary school teacher programme. It was featured that the essential expectation of taking out this research was to get both quantitative and qualitative information with respect to the reflective teaching arrangement in the existing teacher education framework. To achieve this, the mixed research would be the most suitable approach indeed. In order to set the whole research endeavour into its proper outlook, reference was also made to particular philosophical position.

The next chapter will deal with data presentation, analysis, discussion and interpretation of the research findings.

CHAPTER 5

DATA ANALYSIS AND INTERPRETATION

5.1 INTRODUCTION

As indicated from Chapter 1, section 1.4, the main problem of this research is that reflective teaching is considered as a new educational and pedagogical thought in teacher education, but research has not been conducted regarding how pre-service teacher education practices are implemented to impact pre-service teachers' teaching capabilities in Ethiopian schools. The study was directed at a typical secondary school teacher training institution in Ethiopia. The basic research question from Section 1.4 was: How can Ethiopian secondary school pre-service teachers' use of reflective teaching practices be improved?

The sub-questions derived from the basic research question that were addressed in this study included the following:

- What theories can be used to explain the adoption and implementation of reflective teaching in teacher education programmes?
- To what extent are secondary school pre-service teachers in teacher education institutions inclined to use reflective teaching practices?
- What perceptions do pre-service teachers have about the current teacher education model in preparing for reflective teaching in Ethiopia?
- What are the factors that enable or hinder the adoption and implementation of reflective teaching in the current pre-service secondary school teacher education programme?
- What changes should be made to the pre-service secondary school teacher education in Ethiopia to better prepare reflective teachers?

In Chapter 2, sections 2.2 and 2.6, the contextual framework for this research is based on local and international contexts on reflective teacher education programmes.

In Chapter 3, the conceptual and theoretical underpinnings of reflective teaching are synthesized from relevant theories on reflective teaching practices.

The research design of the study is mixed methods approach underlining pragmatism as research paradigm, as illustrated in Chapter 4 (4.3.1.1). The research techniques with respect to data gathering tools for this research were based on structured questionnaire, individual and group interviews, and document reviews (4.4.3). Moreover, in Chapter 4, sections 4.5, quality measures for the mixed research approach were discussed.

This chapter is guided by the objectives of the study and following procedures detailed in the methodology. Section 5.2 presents the research process pertaining to data gathering. The research process includes a concise description on the collected data. Additionally, sections 5.2.1 and 5.2.2 provided the reliability and validity of quantitatively collected data and trustworthiness of the qualitative results.

Section 5.3 shows the data analysis and interpretation of this study. This study focused on mixed methods analysis; thus, the both the quantitative and qualitative data are analysed and interpreted simultaneously. As a result, responses from the questionnaire were tabulated and analyzed quantitatively. On the other hand, the individual and focus group interviews are transcribed to support the quantitative results. The interpretations of the data; thus, address particularly what the data states and take account of how the data for the study was deduced.

Furthermore, section 5.3 includes biographical data, questionnaire, interviews data, document reviews, and the categories related to the data analysis (5.3.1 & 5.3.2). The topics of the research analyses were the key aspects of the study indicted in the data gathering instrument (Appendix A). Any proof from the empirical discoveries are referenced and cross-referenced with the research objectives (1.5).

5.2 RESEARCH PROCESS

In the process of managing the pre-service teachers' questionnaire, the researcher administered the questionnaires to the pre-service teachers in teacher training campus of the university (4.4.2). As a result, the return rate of the completed questionnaires from the 127 administered questionnaires was 95.5%.

On the other hand, in the process of collecting the qualitative data through the structured interviews with the teacher educators and focus group interviews both the pre-service teachers and cooperating teachers, the researcher provided explanations to every interview participant and focus group members about the purpose of the study in order that all participants were clear about their participations in this study. After explaining the intent of the study and making certain that all participants understood the aim of the investigation, the researcher secured their consent to provide responses to the qualitative data collection tools. As a result, responses were audio recorded and they were transcribed after the completions of each session. In this process, eight teacher educators, 12 pre-service teachers, and 12 cooperating teachers (mentors) were the participants (4.4.2).

In the qualitative analysis, the participants' opinions were rendered and utilised to identify the barriers and instructional strategies for effective reflective teaching practices in the existing pre- secondary school pre-service teacher training. The qualitative information provided more insights into the data from the participants' perspectives as well as the versions derived from the interviews supplemented the quantitative analyses. Analyses and interpretations of data in this study have two parts. Part A presents analyses and understands the demographic characteristics of the participants in terms of gender and field of study. On the other hand, Part B reveals pre-service teachers' views to reflective teaching in the current teacher training programme. This division, therefore, tried to identify the knowledge and perceptions of pre-service teachers towards their reflective teaching experiences.

5.2.1 Reliability and validity of the questionnaire

This section displays and discusses the reliability and validity of the data gathered in terms of whether the questionnaire was able to gather reliable and valid information on relevant reflective issues. Internal consistency, reliability was assessed using the Cronbach's alpha index.

Table 5.1: Summary of Cronbach's Alpha values

Sub-Scales	No of items	Cronbach's Alpha
Introduction to Reflective Teaching	10	0.861
Cooperating Teachers' (mentor) Support	10	0.827
Reflective Teaching Efficacy	14	0.891
Perceptions to Reflective Teaching	16	0.839
Factors affecting reflective teaching	10	0.818
Practical Solutions for Reflective Teaching	10	0.780
Overall Cronbach's alpha scale		0.836

Table 5.1 showed the Cronbach's Alpha values derived from the pre-service teachers' questionnaire of each section. As a consequence, it is proven that the Cronbach's alpha index for the introduction of reflective teaching is 0.861. This indicated that this sub-section had high internal consistency reliability with regards to the scale or questionnaire items in this sub-division. On the other hand, this table revealed that Cronbach's alpha index for the cooperating teachers' support for the reflective teaching is 0.827 which shows high internal consistency with regards to the scale or items in this sub-section. Results in Table 5.6 showed that the Cronbach's alpha for the reflective teaching self-efficacy is 0.891 which shows high internal consistency with regards to the questionnaire items in this sub-scale. The Cronbach's alpha for the pre-service teachers' perceptions for reflective teaching is 0.839 which is found to be high internal consistency reliability with regards to the items in this sub-scale.

Table 5.6 also revealed that the Cronbach's alpha values for the factors affecting the reflective teaching practices in the pre-service teacher education curriculum and the practical solutions for effective reflective teaching practices for the pre-service

teachers are 0.818 and 0.780 respectively, which shows high internal consistency with regards to the items in this sub-scale to collect dependable data. The overall index showed that the research scale was found good enough to obtain reliable results. In sum, Table 5.2 shows that the overall internal consistency reliability index for the whole scale in the current study is 0.836.

From Chapter 4, section 4.5.1.1, the Cronbach's alpha index was recognized to assess the reliability of a set of scale items as a way of forming a determination of the stage to which the scale items are nearly interrelated to one another (George & Malley, 2003; Griffith, 2015). Overall, results in Table 5.6 showed that the questionnaire was good enough of coming up with reliable results (George & Malley, 2003; Dennick, 2011; Griffith, 2015). Moreover, within 4.5.1.2, the content validity of the questionnaire in this study was established using experienced reflective instructors' opinions. Altogether the above criteria were used to suggest an instructional framework for effective reflective teaching implementations in the pre-service secondary school teacher training programme.

5.2.2 Trustworthiness of qualitative data

Measures of trustworthiness were built up inside this study as per four elements (4.6). The four measures of trustworthiness utilized for this research were credibility, transferability, dependability, and conformability. These four measures of trustworthiness were set up inside Chapter 4. Also, I guaranteed that this research adjusts in line with the research questions and research design. The contrasting and varied information collection techniques kept up trustworthiness using consistent relative strategies, which permitted interaction between the data and the theoretical structure. To permit transferability, the study provided adequate detail of the setting so that the discoveries can reasonably be connected to another context. The changeability of reflective teaching implementation is extraordinary because of elements, for example, teacher educators' dispositions, pre-service teachers' readiness, cooperative teachers' knowhow, and the place of reflective teaching practice. The gathered information for this research was planned to be transferable regardless of these challenging circumstances. Finally, the researcher endeavoured

to construct genuine rapport and trust among myself and the interviewees to take into account open and comfortable discourses by reacting to the participant remarks while exhibiting sympathy, humour, empathy, and comprehension.

5.3 DATA ANALYSIS AND INTERPRETATION

This part presents a summary of the statistics and responses gained from the pre-service teachers' questionnaires (Appendix A) and followed by detailed interpretations. The quantitative data analysis was done by means of measurement frequencies and percentages in accordance with the seven sections of the questionnaires and illustrated in tables and figures. The outcomes were then presented descriptively in the pattern of frequency tables consisting of categories of respondents who represented perceptions held by their groups with regard to a particular outlook and practice. On the other hand, the individual interviews (Appendix B), and the focus group interviews (Appendix C & Appendix D), and relevant teacher education documents were qualitatively analysed to supplement the quantitative results.

5.3.1 Analysis of the biographic characteristics of respondents

This section describes the demography of the respondents in terms of gender and the departments they are studying. Table 5.2 shows the respondents' biographical information as defined by the questionnaire (Appendix A).

Table 5.2: Biographic characteristics of pre-service teachers as participants

Department	Gender		Total
	Male	Female	
Afaan Oromo	15	5	20
Biology	32	6	38
Chemistry	27	4	31
Mathematics	23	0	23
Physics	15	0	15
Total	112	15	127

From Table 5.2, it can be observed that a total of 127 pre-service teachers from five different departments took part in this research. Profiles of the respondents indicated that the majority (88.20%) of pre-service teachers in this work were male, while female pre-service teachers were (11.80%). This suggests that there were more male pre-service teachers than the females in the current secondary pre-service teacher training programme. However, MoE (2013) states that female pre-service teachers should receive 40% quota for the secondary school teaching positions. Furthermore, MoE (2013) stresses that the quota should be strictly applied in all areas of the secondary teacher education training.

The biographic information of the participants discovered that the majority (84.30%) of the pre-service teachers were from the natural science departments. This may suggest that the pre-service teachers would have language difficulties to think over their teaching experiences. The qualitative data from the individual interviews with the teacher educators (TE) also showed critical information that had influences on reflective teaching implementation in the current teacher education programme. Among some of the individual interview answers were the following:

I think pre-service teacher's English language proficiency matters for "effective reflective teaching practices." (TE3)

"I believe the more the pre-service teachers become English Language proficient, the better they become reflective teachers, as language proficiency helps pre-service teachers describe and reflect tasks given to them as per the curriculum framework. English language ability is very important for teachers to apply the reflective cycles for learning to teaching. However, most of the pre-service teachers are not able to express their ideas in English". (TE6)

Moreover, another TE felt that pre-service teachers' language ability impacted their reflective teaching preparations.

"Language ability influenced the implementation of the reflective teacher education curriculum framework. As a result, relevant experiences and relevant tasks of

the curriculum are not well reflected and evaluated by the pre-service teachers”.
(TE2)

It is found from most of the participants that language is connected to being reflective teachers, with better language proficiency means the ability to be a better teacher and be able to distinguish, judge and reach determinations in the course of reflective teaching practices. In this regard, it is suggested that one of the barriers to reflective teaching in pre-service teacher preparation programmes is a language barrier. It is also found that language is so important for science teaching Chapter 3 (3.2.5). Hence, pre-service science teacher requires being cognizant that the English language should be a major piece of the teaching profession, and that language incompetence is a major roadblock to the reflective teaching and learning process.

5.3.2 Views on reflective teaching practices

The following categories listed within this section cover the major topics acknowledged from the collected data. The data analysis and interpretations section is focused on the seven themes mentioned in 4.4.3.1. Basically, this section classifies the themes of roles played by the teacher educators for pre-service teachers to becoming reflective practitioners, the level of support given by cooperating teachers for reflective teaching practices, the types of reflective tools pre-service teachers experienced, the contributions of reflective teaching practices for pre-service teachers' reflectivity, pre-service teachers' perceptions of reflective teaching practices in the existing teacher education programme, factors affecting reflective teaching practices, and practical solutions for effective reflective teaching implementations (Appendix A).

5.3.2.1 Introduction to reflective teaching

In Table 5.3 questions were used to ascertain whether the pre-service teachers gained adequate introduction of the benefits and importance of reflective teaching from the lectures (Appendix A, section 1).

Table 5.3: Pre-service teachers' responses to reflective teaching introduction

No	Item: paraphrase of question	Response	Frequency	Percentage	Mean
1	Emphasized the role of reflective practices in helping me to teach effectively.	Strongly Disagree	27	21.3	2.5118
		Disagree	44	34.6	
		Undecided	25	19.7	
		Agree	26	20.5	
		Strongly Agree	5	3.9	
2	Emphasized the role of reflective tools for reflective teaching.	Strongly Disagree	29	22.8	2.5512
		Disagree	40	31.5	
		Undecided	26	20.5	
		Agree	23	18.1	
		Strongly Agree	9	7.1	
3	Developed my strategies for teaching in secondary schools.	Strongly Disagree	32	25.5	2.6772
		Disagree	37	29.1	
		Undecided	18	14.2	
		Agree	30	23.6	
		Strongly Agree	10	7.9	
4	Taught me the reflective practice skills needed.	Strongly Disagree	28	22.0	2.5984
		Disagree	43	33.9	
		Undecided	18	14.2	
		Agree	28	22.0	
		Strongly Agree	10	7.9	
5	Explained the purposes of reflective tools	Strongly Disagree	29	22.8	2.4409
		Disagree	43	33.9	
		Undecided	29	22.8	
		Agree	22	17.3	
		Strongly Agree	4	3.1	
6	Emphasized the role of reflective tool as a compulsory requirement activity.	Strongly Disagree	32	25.2	2.4803
		Disagree	43	33.9	
		Undecided	20	15.7	
		Agree	23	18.1	
		Strongly Agree	9	7.1	
7	Prepared me for teaching reflective in secondary schools	Strongly Disagree	24	18.9	2.7323
		Disagree	37	29.1	
		Undecided	23	18.1	
		Agree	35	27.6	
		Strongly Agree	8	6.3	
8	Assisted me to reflect on improving my secondary	Strongly Disagree	30	23.6	
		Disagree			

	school teaching practices	Disagree	35	27.6	
		Undecided	29	22.8	2.7244
		Agree	24	23.6	
		Strongly Agree	9	7.1	
9	Instilled positive attitudes in me towards reflective teaching.	Strongly Disagree	32	25.2	
		Disagree	48	37.8	2.33.7
		Undecided	25	19.7	
		Agree	17	13.4	
		Strongly Agree	5	3.9	
10	Adequately introduced me the roles of reflective teaching for my profession.	Strongly Disagree	21	16.5	
		Disagree	53	41.7	2.4803
		Undecided	29	22.8	
		Agree	19	15.0	
		Strongly Agree	5	3.9	

The responses indicated that 71 (55.9%) of the pre-service teachers disagreed and strongly disagreed that the teacher educators emphasised the roles of reflective practices for effective teaching. In addition, 69 (54.3%) of the pre-service teachers disagreed or strongly disagreed that the lectured emphasized the role of reflective tools for reflective teaching. Moreover, the questionnaire responses indicated that 69 (54.6%), 71 (55.91%), 72 (56.69%), 75 (59.01%), 61 (48.03%), 65 (51.2%), 80 (62.99%) of the pre-service teachers disagreed and strongly disagreed that the teacher educators helped them develop reflective teaching strategies, taught them the reflective skills, explained the purposes of reflective tools, emphasized the roles of reflective tools as essential requirements for reflective teaching practices, prepared them for teaching reflective in secondary schools, assisted them to reflect and improve their secondary school teaching practices; and instilled positive attitudes towards reflective teaching respectively. Finally, the majority of the pre- service teachers 74 (58.27%) disagreed and strongly disagreed that teacher educators they have had adequate introduction to reflective teaching.

This suggested that the majority of the pre-service teachers strongly disagreed and disagreed that they had been informed, introduced, adequately introduced, during the lectures of the roles of reflective teaching and skills of reflections that could be beneficial to them and reflective teaching practices could help be them good teachers. Qualitative data also confirmed the quantitative responses that the pre-

service teachers lacked reflective teaching introductions and preparations in the theoretical classes. The focus group interviews carried with the pre-service teachers consistently expressed concern about inadequacy of introduction to reflective teaching in their training:

Additionally, the focus group interviews with the pre-service teachers showed that the pre-service teachers did not have clear understandings of reflection and did not believe that teacher educators played significant roles in equipping them for reflective teaching. Among some of the responses were the following:

The lectures were mainly of teacher dominated and we did not get access to working research based activities. I believe it would help pre-service teachers to be exposed to a range of different inquiry methods; this would improve their problem solving and reflection skills.

The main emphases of the lectures in my classes were too theoretical. We were trained to apply methods put in the modules for granted. Hence, I feel the lectures did not adequately show us the roles of reflective teaching for my teaching profession.

In the lectures there were very limited explanations of how to use reflection. As a result, understanding reflection was very difficult for us. I think a lot of students struggle to apply reflection in their teaching practices, since, we were mainly engaged in doing assignments which did not require practical engagements in the lectures. To be frank we need more lectures and additional workshops to understand the essence of reflection and apply reflective teaching in secondary schools.

Table 5.4 presents pre-service teachers' responses to reflective teaching introduction. It was used to determine whether there are significance differences within groups based on their field of studies.

Table 5.4: Pre-service teachers' responses to reflective teaching introduction based on subject differences

ANOVA					
Sum of Introduction					
	Sum of Squares	Df	Mean Square	F	Sig.
Between Groups	336.186	4	84.047	1.268	.286
Within Groups	8087.467	122	66.291		
Total	8423.654	126			

Results in Table 5.4 also showed that $F(4, 122) = 1.268$; $p = 0.00$; $p < 0.05$, and so results are insignificant. It is, therefore, concluded that there is no difference among pre-service teachers in relations to reflective teaching introductions they received from the programme. Thus, the results ascertained that pre-service teachers were not adequately introduced for reflective teaching within the teacher education institution. From section 1.5, the main purpose of this research was to propose a framework for successful implementation of reflective teaching practices in the pre-service teacher education programme. In the reflective teaching framework, introduction and preparations to reflective teaching is critical. Based on the above results, there is general agreement among the pre-service teachers that the teacher education programme did not provide pre-service teachers with adequate introductions to the roles of reflection and on how to practice reflective teaching in schools.

From Chapter 2 (2.6), Ward and McCotter (2004) in their investigations found that pre-service teachers should have a clear understanding of reflection and value its role in helping them to develop as reflective teachers and improve their practice. Yet, Sahin–Taskin (2006) and, as it is confirmed by this study, has found that many teacher education programmes have provided pre-service teachers with inadequate opportunities to engage them actively in developing and teaching lessons and to help them connect research and practice as well as develop research-based teaching strategies. However, from Chapter 3 (3.4), it is found that orientations to reflective teaching and learning are one of the dimensions to develop reflective experiences (Wallace, 1991; Stanley, 1998; Kumari, 2014).

5.3.2.2 Pre-service teachers' views of the roles of the cooperating teachers

All of the pre-service teachers expressed their feelings of the support, help, and guide they received from the cooperating teachers (Appendix A, section 2). Table 5.5 showed the perceived roles of the cooperating teachers for the reflective teaching.

Table 5.5: Cooperating Teachers' Roles in the Reflective Teaching Practices

No	Item: paraphrase of question	Response	Frequency	Percentage	Mean
1	Emphasized the importance of reflecting on my experiences.	Strongly Disagree	11	8.7	3.5512
		Disagree	19	15.0	
		Undecided	20	15.7	
		Agree	43	33.9	
		Strongly Agree	34	26.8	
2	Emphasized the role of reflective tools in helping me teach effectively	Strongly Disagree	10	7.9	3.5984
		Disagree	17	13.4	
		Undecided	22	17.3	
		Agree	43	33.9	
		Strongly Agree	35	27.6	
3	Assisted me to reflect on improving my teaching practices.	Strongly Disagree	8	6.3	3.7008
		Disagree	18	14.2	
		Undecided	19	15.0	
		Agree	41	32.3	
		Strongly Agree	41	32.3	
4	Guided me with secondary school lesson preparation	Strongly Disagree	10	7.9	3.7480
		Disagree	17	13.4	
		Undecided	17	13.4	
		Agree	43	33.9	
		Strongly Agree	39	30.7	
5	Discussed with me the school policies used for teaching.	Strongly Disagree	9	7.1	3.7480
		Disagree	16	12.6	
		Undecided	11	8.7	
		Agree	53	41.7	
		Strongly Agree	38	29.9	
6	Observed me teaching lessons.	Strongly Disagree	4	3.1	4.4803
		Disagree	7	5.5	
		Undecided	3	2.4	
		Agree	63	49.6	
		Strongly Agree	49	38.6	
7	Assisted me with my institute teaching assignments	Strongly Disagree	24	18.9	2.7638
		Disagree	35	27.6	
		Undecided	32	25.2	
		Agree	19	15.0	
		Strongly Agree	17	13.4	
8	Provided feedbacks on my teaching practices.	Strongly Disagree	4	3.1	4.3071
		Disagree	12	9.4	
		Undecided	15	11.8	
		Agree	56	44.1	
		Strongly Agree	39	30.7	
9	Discussed evaluation of my	Strongly Disagree	3	2.4	

	teaching practices.	Disagree	15	11.8	
		Undecided	20	15.7	3.8504
		Agree	49	38.6	
		Strongly Agree	40	31.5	
10	Was supportive of me for teaching in secondary schools	Strongly Disagree	5	3.9	
		Disagree	10	7.9	
		Undecided	13	10.2	
		Agree	55	43.3	3.9685
		Strongly Agree	44	34.6	

Questionnaire responses in Table 5.5 were used to determine the extent to which the cooperating teachers provided assistance for the pre-service teachers during their school teaching and learning experiences. The response indicated that 77 (60.63%) of the pre-service teachers agreed and strongly agreed that the cooperating teachers were emphasising the importance of reflective teaching experiences. Besides, 78 (61.42%) of the pre-service teachers agreed that cooperating teachers emphasised the importance of reflective tools for effective teaching. Furthermore, 82 (64.57%), 82 (64.57%), 91 (71.65%), 112 (88.19%), 95 (74.80%), and 89 (70.08%) of pre-service teachers respectively agreed that cooperating teachers assisted them to practice and improve teaching, guided them for reflective teaching, discussed school policies, observed their lessons, provided feedbacks, and discussed the evaluation scheme for their teaching performance respectively. Finally, the majority of the pre-service teachers 99 (77.95%) believed that cooperating teachers were supportive for them while teaching in secondary schools.

The quantitative responses obtained through the questionnaire supported with the quantitative responses. In this case, the two focus group interviews with the pre-service teachers about the roles played by the cooperating teachers for their reflective teaching preparation (Appendix D) revealed that they all felt cooperating teachers were essential for the reflective teaching practices. Among some of the responses by the pre-service teachers were:

I really enjoyed how cooperating teachers helped me teach in schools. They were providing assistance, giving feedbacks of my teaching performance, encouraging, sharing their teaching experiences, and demonstrating me how to teach.

I did not know how to prepare a lesson plan; despite I took

pedagogical courses for that. It is the cooperating teacher who showed me how to prepare a lesson plan and use for my teaching practice.

I couldn't have successfully performed my action research project without the assistance of the school teacher-my mentor... My cooperating teacher was my advisor to my action research project. I really want to say thank you for my mentor for his professional support in helping me reflect and improve my teaching experience through my action research project.

My cooperative teacher was very essential for my teaching practice. He instructed me how to select an appropriate teaching strategy, manage classes, and assess students' performance. I am thankful for his generous and loving attitude.

Furthermore, the focus group interviews held with the cooperating teachers were in agreement with the pre-service teachers' views. Some of the comments *demonstrate this:*

I am pleased that I got the chance to share my experience with the pre-service teachers who are eager to work for the teaching profession.

I like supporting student-teachers in my school. I have been a cooperating teacher to many of the secondary school pre-service teachers in my classes. I enjoyed very much. I always help them first know the culture and norms of my school. After that, I show them how to prepare lesson plans. Fortunately, I have had no problems working with the pre-service teachers in my classes.

When I introduce the pre-service teachers to my students, I tell them that he/she will be a teacher in the future so that they should help the student- teachers and stay peaceful. Moreover, I try to share my experiences about classroom management and the activities which can be used in the 9th and 10th grades.

From Chapter 3 (3.2.4.8), Britzman (2000) conceived that cooperating teachers may impact student-teachers' profession-related socialization, career satisfaction, impression of the expert role, methods of insight of teaching, instructional practices, and maybe even their choice to remain in the teaching profession. Terms such as guide, advisor, counsellor, instructor, sharer, supporter and encourager are commonly used to describe a cooperating teacher's roles (Hall, et al., 2008). These affirmed roles by the participants of this study are in line with the abovementioned literature results. In recent years, the use of cooperating teachers has turned out to be more conspicuous prominent in pre-service teacher education, supplanting 'supervision' in numerous education degrees (Hudson, 2004; Zeegers, 2005).

In a pre-service teacher education, section 3.2.4.8, cooperating teachers are used during teaching practicum in which pre-service teachers are being placed with classroom teachers to learn, develop and practice teaching knowledge and skills (MoE, 2013). However, the results of this study found that the relationships between the cooperating teachers and the pre-service teachers are more of hierarchical, in which the cooperating teachers are considered to be more experienced than the pre-service teachers, and they provide knowledge and skills that the cooperating teachers wants or needs (McCormack & West, 2006; Billett, 2003).

Furthermore, Chapter 3 (3.2.4.8) suggested that the nature of the relationship between the cooperating teachers and pre-service teachers influence the roles taken and played out in that relationship (Cherian, 2007; Scalon, 2008). Thus, cooperating teachers should play their roles to establish friendly relationships with the pre-service teachers to develop personal and professional engagements so as to help achieve goals and should focus on the cultural and situational features of the reflective teaching context (Lai, 2005). Consequently, the cooperating teachers' will influence pre-service teachers' teaching knowledge and skills.

(i) Differences on Cooperating Teachers' Roles for Reflective Teaching

Table 5.6 displays pre-service teachers' views on cooperating teachers' roles for reflective teaching. In order to find out whether there is a significance difference between the levels of cooperating teachers support for reflective teaching, one-way

analysis of variance, One-Way ANOVA was applied.

Table 5.6: Pre-service teachers' responses to cooperating teachers' roles for reflective teaching based on subject differences

	ANOVA				
	<i>Sum of Squares</i>	<i>Df</i>	<i>Mean Square</i>	<i>F</i>	<i>Sig.</i>
<i>Between Groups</i>	170.663	4	42.666	.837	.504
<i>Within Groups</i>	6217.132	122	50.960		
<i>Total</i>	6387.795	126			

Results in Table 5.6 also showed that $F(4, 122) = .837$; $p = 0.00$; $p < 0.05$, hence results are insignificant. It is, therefore, concluded that there is no difference among pre-service teachers in terms of the quantity and quality of cooperating teachers' support for reflective teaching practices. Thus, the results discovered that pre-service teachers believed that cooperating teachers were helpful for reflective teaching development within the teacher education institution.

5.3.2.3 Pre-service teachers' experiences with reflective tools

Table 5.7 shows the availability and utilization of reflective teaching tools for secondary school's pre-service teachers' reflective teaching development in the typical institution under this case study (Appendix A, section 3).

Table 5.7: Pre-Service Teachers' Experiences with Reflective Tools

No	Reflective Tools	Response				DECISION
		Yes		No		
		F	%	F	%	
1	Reflective Journal			127	100	Not Available
2	Portfolios	127	100			Available
3	Micro teaching	41	32.3	86	67.7	Partially Available
4	Mentoring	127	100			Available
5	Group Discussion	69	45.7	58	54.3	Partially Available
6	Teaching Practicum	127	100			Available
7	Class observation	65	48.2	62	51.8	Partially Available
8	Video taping			127	100	Not Available
9	Action research	127	100			Available
10	Checklists	127	100			Available
11	Modules/handouts/lecture notes	33	26	94	74	Partially Available

According to Table 5.7, the most available reflective teaching tools included portfolios (100%), mentoring (100%), teaching practicum (100%), action research (100%), and checklists (100%). The next most available reflective teaching tools included class observation (48.2%), group discussions (45.7%), micro teaching (32.3%), and modules (26%). The data showed that other reflective teaching tools for pre-service teachers were lacking for example, reflective journal (0%) and video tapping (0%).

In addition to the types of reflective tools, qualitative data showed gaps in proper utilizations of the tools for better reflective engagements. The focus group interviews with the pre-service teachers confirmed the gap between the availability of the reflective teaching tools and the use of reflective teaching tools.

The pre-service teachers were cognizant of the gaps as illustrated by these notes:

Reflective tools play very important roles for teachers' development... they give the teacher his/her actual performances and as a result they can see the strengths and weaknesses... so reflective tools should be used for pre-service teachers' reflections. (TE3)

The reflective tools have negative impact on me. I realized none of the reflective tools were effectively used. They were simply used for grading and graduation requirements only. Hence, I couldn't benefit out of the reflective tools for my further teaching knowledge. (Pre-service teacher) we couldn't understand why we are expected to develop teaching portfolios. At first we did not know what was expected. What should be included and how should be develop it. The templates were full of tables and figures to reflect. So, we struggled very much to develop reflective portfolios. (Pre-service)

The current Ethiopian secondary school teacher education programme states the interplay of theory and practice. One of the major reflective teaching practices is the practicum, but the time given for the reflective practicum is too short to use the reflective tools effectively. (TE 6)

As far as my observation is concerned, many of the pre-service teachers did not know how to perform action researchers in the schools... they did not understand that action research is ongoing research in which the practicing teacher should bring changes and evaluate changes brought by the practical research during the practicum. (Cooperating teacher)

I know as a teacher to the course entitled 'teachers as reflective practitioners', pre-service teachers should be engaged in critical teaching. For this purpose, they should have access to reflective tools. In my institutions, the pre-service teachers are supposed to develop practicum portfolios and action research projects from their

reflective teaching practices in the partner schools. But I am observing many of the pre-service teachers are not doing well with the tools. The practicum portfolios are mainly of descriptive types-lacking analysis and evaluations. Moreover, the action research projects are almost having full characteristics of the basic researches. Hence, I see ineffective utilizations of reflective tools within the existing pre-service teacher education. (TE3)

From section 3.2.4, proponent of reflective teaching expressed that with the end goal to prevail good reflective teaching practice, pre-service teachers need to assess and evaluate their performance using the techniques for reflection (Kahn & Walsh, 2006). Thus, both cognitive and pedagogical tools need to be embedded in the curriculum design and curriculum organization of teacher education (Roe, et al., 2010). These strategies lead to what is called reflective teaching. Likewise, in reflective teaching, methods of reflections enable pre-service teachers to have a thought understanding of the expectations within the reflective teaching framework.

Moreover, from section 3.2.4.1, it is documented that teaching journals/ diaries, course reports, research and surveys, action research, observation, sound and video recordings, peer counselling and teaching debates, portfolios, metaphor, critical autobiographies, critical group audiences, mentoring, video reflection, micro-teaching, web based journals called 'blogs', critical incidents, critical friends, and support groups facilitate reflective teaching development (Richards, 1995; Wang & Hartley, 2003; Farrell & Richards, 2005; Farrell, 2007). The study identified a few numbers of reflective tools that have been used to help pre-service teachers develop their reflective teaching skills and used to create reflective teaching implementation framework.

On the other hand, the study found that video and audio technologies and reflective journals were lacking. Wang and Hartley (2003) suggested that video technologies provide teacher candidates with the opportunity to document the rich contexts of teaching and learning with the necessary perspective to observe and reflect carefully. In addition, section 3.2.4.1 video promotes experiential learning by allowing the pre-service teacher to move from actor to observer and from involvement to detachment.

Furthermore, from section 3.2.4.1, it has been shown that editing video of their own teaching can provide teacher candidates the extended engagement needed to promote reflective thinking in which they questioned how their actions aligned with their beliefs (Kolb, 1984; Yerrick, et al., 2005). Yet, more research studies are needed to ascertain teacher candidates' utilizations of digital video to reflect on authentic, personalized teaching events (Crawford & Patterson, 2004; Sherin & Van Es, 2005; Yerrick, et al., 2005).

Within section 3.2.4.2, journal writing has been used in many professional settings to encourage reflective thinking and learning in professional and personal development (Kallaith & Coghlan, 2001; Gil-Garcia & Cintron, 2002). Richards and Farrell (2005) describe a teaching journal as a notebook in which a teacher writes regularly about teaching experiences and other events. In education, journal writing can help teachers question and analyze what they do both inside and outside the classroom, thus consciously exploring and analyzing their practice. It is believed that journal writing in the classroom provide the pre-service teachers a mechanism for developing reflection skills, and becomes a discipline for capturing personal experience. Moreover, a reflective journal involves learners in self-assessment, collaborative critique, self-reflection and goal setting (Kallaith & Coghlan, 200; Gil-Garcia & Cintron, 2002).

In contrast, the study found that the reflective tools were poorly implemented. As a result, they were not used to obtain depth information about the prospective teachers' reflective teaching capabilities. Thus, section 3.2.4.2 suggests that merging these task structures in creative ways and utilizing them individually, collaboratively, and with facilitated coaching is likely to have the greatest potential for promoting higher-order reflection in the pre-service teachers (Richards, 1995; Wang & Hartley, 2003; Farrell & Richards, 2005; Farrell, 2007). Besides, section 3.2.4, literature on effective strategies for better reflective teaching practice indicated the need for post-observation, dialoguing and discussing ideas for developing teachers' reflection should be an area of development for teacher training institutions to improve reflective skills of pre-service teachers (Wang & Hartley, 2003; Farrell & Richards, 2005; Farrell, 2007).

5.3.2.4 Pre-service teachers' self-efficacy for reflective teaching

Table 5.8 reveals pre-service teachers' responses to the self-efficacy for reflective teaching sub-section of the questionnaire (Appendix A section 4). The items are meant to find pre-service teachers' beliefs that reflective practices affected their teaching capabilities as well as motivation to teaching accordingly.

Table 5.8: Pre-service Teachers' Perceived Teaching Efficacy

No	Item: paraphrase of question	Response	Frequency	Percentage	Mean
1	My experiences with the reflective practice trained me to keep a personal professional portfolio in which I collected proofs of my learning as a teacher.	Strongly Disagree	33	26.0	2.5039
		Disagree	39	30.7	
		Undecided	23	18.1	
		Agree	22	17.3	
		Strongly Agree	10	7.9	
2	I believe the reflective teaching practice improved my inquiry learning.	Strongly Disagree	23	18.1	2.9449
		Disagree	32	25.2	
		Undecided	22	17.3	
		Agree	29	22.8	
		Strongly Agree	21	16.5	
3	I found writing reflections on my experiences easy.	Strongly Disagree	27	21.3	2.7244
		Disagree	36	28.3	
		Undecided	25	19.7	
		Agree	23	18.1	
		Strongly Agree	16	12.6	
4	I think the reflective teaching practice prepared me to use a variety of assessment strategies	Strongly Disagree	22	17.3	3.1024
		Disagree	28	22.0	
		Undecided	18	14.2	
		Agree	33	26.0	
		Strongly Agree	26	20.5	
5	My experience with reflective teaching practice made me find reasons for positive and negative classroom occurrences.	Strongly Disagree	22	17.3	2.9291
		Disagree	38	29.9	
		Undecided	16	12.6	
		Agree	29	22.8	
		Strongly Agree	22	17.3	

6	I believe the teaching practice skilled me to adjust my lessons to the proper level for individual pupils.	Strongly Disagree	17	13.4	3.3622
		Disagree	22	17.3	
		Undecided	16	12.6	
		Agree	42	33.1	
		Strongly Agree	30	23.6	
7	I have developed a problem solving skills through my reflective teaching practices.	Strongly Disagree	17	13.4	3.0866
		Disagree	33	26.0	
		Undecided	20	15.7	
		Agree	36	28.3	
		Strongly Agree	21	16.5	
8	My behavioural management skills are well developed by the reflective teaching practices	Strongly Disagree	14	11.0	3.2835
		Disagree	35	27.6	
		Undecided	11	8.7	
		Agree	35	27.6	
		Strongly Agree	32	25.2	
9	My experience with reflective practices developed my communication skills.	Strongly Disagree	4	3.1	3.7244
		Disagree	20	15.7	
		Undecided	20	15.7	
		Agree	46	36.2	
		Strongly Agree	37	29.1	
10	I can apply classroom management skills in secondary schools because of the reflective teaching practices.	Strongly Disagree	5	3.9	3.8976
		Disagree	15	11.8	
		Undecided	16	12.6	
		Agree	43	33.9	
		Strongly Agree	48	37.8	
11	Keeping a journal description of incidents in my classroom for further actions is easy.	Strongly Disagree	34	26.8	2.1339
		Disagree	56	44.1	
		Undecided	25	19.7	
		Agree	10	7.9	
		Strongly Agree	2	1.6	
12	My teaching experiences have developed my skill of keeping a diary to follow my professional	Strongly Disagree	36	28.3	2.3386
		Disagree	48	37.8	
		Undecided	17	13.4	
		Agree	16	12.6	

	development and see my shortcomings.	Strongly Agree	10	7.9	
13	I know the importance of informed classrooms due to my reflective teaching experiences.	Strongly Disagree	17	13.4	
		Disagree	21	16.5	
		Undecided	17	13.4	3.3622
		Agree	43	33.9	
		Strongly Agree	29	22.8	
14	My experiences with the reflective tools have been positive.	Strongly Disagree	26	20.5	
		Disagree	36	28.3	2.8740
		Undecided	17	13.4	
		Agree	24	18.9	
		Strongly Agree	24	18.9	

As shown in Table 5.8, majority of the pre-service teachers 59 (46.5%) thought that the reflective teaching practices within the existing teachers education programme prepared them to use a variety of assessment strategies, 72 (56.7%) believed the teaching practices helped them become skilful to adjust lessons to the proper level for individual pupils, 57 (44.8%) felt develop problem solving skills through the reflective teaching practices, 67 (52.8%) considered their behavioural management skills are improved due to the reflective teaching practices, 83 (65.3%) believed that the reflective practices experiences helped them to develop their communication skills, 91 (71.4%) considered themselves capable of applying the classroom management skills in secondary schools because of the reflective teaching practices, and 72 (56.5%) assisted them understand the importance of informed classrooms due to the reflective teaching experiences.

Contrary, 72 (56.7%) of the respondents perceived the reflective teaching practices did not help them to professionally develop the teaching portfolios, 55 (43.3%) of the pre-service teaches believed the reflective teaching practice did not help improve their inquiry learning, 63(49.6%) found writing reflections of their experiences difficult, 60 (47.2%) felt their experiences with the reflective teaching practice did not make them critically find justifications for positive and negative classroom occurrences, 90 (70.9%) perceived Keeping a journal description of classroom incidents difficult, 84 (66.1%) of the pre-service teachers believed that the reflective teaching experiences did not help them developed their skills of keeping a diary to follow their professional

development and see the shortcomings.

Overall, the majority of the pre-service teachers 62 (48.8%) believed that their experiences with the reflective tools hadn't been positive. This implies that the findings indicated that the majority of the pre-service teachers believed the inadequacy of the potential of the reflective teaching experiences in the teacher education programme in terms of making the pre-service teachers reflective.

Quantitative results from the questionnaire are also confirmed by qualitative results from focus group interviews with pre-service and cooperating teachers. The pre-service teachers felt good with the reflective teaching practicum and considered a critical component for reflective teaching skills. In addition, the focus group interviews with the cooperating teachers showed the value of reflective teaching practicum for reflective teaching efficacy.

Among some of the comments with regards to the roles the reflective teaching in promoting pre-service teachers' reflectivity from the focus group interviews was the following:

With the reflective teaching practicum, it's not just how you see yourself, it's about how you interact with people; how you manage the class; and be able to communicate with your students. (Pre-service teachers)

Reflective teaching affected the relationship I was able to build with my students. I was able to deal with large classes. My behavioural management was improved, because I was using school behavioural management system to do so. I think the reflective teaching experience was helpful for us to identify the important areas of schooling and skills of development. (Pre-service teachers)

The reflective teaching practices were helpful for us to develop some areas of reflective learning and teaching. We have developed problem solving skills. We know how to manage our classes. We also know how to identify students' capabilities and accordingly provide assistances, guidance and tutorials. (Pre-service teachers)

I was assigned as a mentor to the pre-service teachers in my school. I found many of my mentees good at developing positive relationships with the students. The students were very interested to attend their classes. Many of my students, who do not want to ask me in my classes and out of the classes attend and become active participants in the pre-service teachers' classes. (Cooperating Teacher)

On the other hand, among some of the comments from the pre-service teachers with regards to the roles the reflective practices did not play their roles in promoting their reflectivity were the following:

Most of us hadn't been able to develop portfolios, and struggled to submit for our teachers. And I think it was too difficult for us to do so. The reflective teaching did not give us the real opportunity to describe, reflect and develop the practicum portfolios in a professional way. The things that we have reflected upon in our portfolios do not seem to fit very well with what is expected of us to prepare for the institution.

At the school, the support was very little. This affected the effective reflective teaching practicum implementation. This was because there was no support for action research projects; however, action research projects were believed to help us develop the inquiry based teaching and develops problem solving skills.

The practicum was assumed to help us develop reflective skills. But due to time and lack of assistance, we think we couldn't benefit much out of the reflective teaching practices.

Moreover, teacher educators felt that the pre-service teachers are less influenced by the reflective teaching practices. One of the teacher educators commented as following:

Pre-service teachers in my institute almost never understand the purpose of reflection. However, it seemed pre-service teachers

understand reflection in the reflective courses, yet further discussions and evaluation results of their reflectivity during the actual teaching practices revealed that many pre-service teachers had low reflection abilities and were found taking much of their time completing the checklists and templates given by the institute, which was assumed to guide pre-service teachers' for critical reflection. But simply filling the checklists and reporting their reflections do not indicate pre-service teachers' reflective competences, because this task doesn't need any personal commitment for further learning. (TE4)

From section 3.2.4.6, assessment of the efficacy of reflective teaching practices in promoting reflection is difficult, yet literature advocate assessing pre-service teachers' perceived efficacy helps to determine the skills and knowledge developed and acquired due to the reflective teaching engagements and to becoming reflective practitioners.

In addition, Wheatley (2002) stated that observing the relationship between pre-service teachers' perceived reflective efficacy and the reflective teaching engagements could help interpret participants' reflectiveness, since reflection may have helped them identify areas of development in their reflective teaching skills. However, within section 3.2.4.6, educational researches explored the link between reflectivity and novices' teaching abilities and concluded that this assumption is appropriate, although, somewhat still premature to suggest that the more pre-service teachers reflect the more their teaching abilities will improve (Gipe & Richards, 1992; Mergler & Spooner-Lane, 2012).

Reflective teaching practices have been used to enhance reflection among pre-service teachers within the existing secondary school teacher education. However, it is found that reflective teaching practices do not necessarily ensure that pre-service teachers will use the reflective process in practice. Without a mechanism to assess whether pre-service teachers are truly reflecting, the teacher education programme has no way of knowing whether the pre-service teachers are competent in using reflection to develop deeper understanding and inform their teaching practice and provide feedback to pre-service teachers on their reflective learning. This also

provides feedbacks to teacher educators about the efficacy of their teaching strategies.

(i) Gender and reflective teaching efficacy

This section analyses differences in reflective teaching efficacies of pre-service teachers based on gender differences.

Table 5.9: Variations of reflective teaching efficacy based on gender differences

		Sum of reflective efficacy	
		Equal variances assumed	Equal variances not assumed
Levene's Test for Equality of Variances	F Sig.	10.081 .002	
t-test for Equality of Means	T	-.078	-.055
	df	125	15.529
	Sig. (2-tailed)	.938	.957
	Mean Difference	-15000	-15000
	Std. Error Difference	1.93083	2.72616
	95% Confidence Interval Lower of the Difference	-3.9718	-5.94346
	Upper	3.67136	5.64346

Table 5.9, t-test for Equality of Means, showed that the $p=.938$; $p>0.05$ hence results are insignificant. This shows that the groups do not differ in their perceived self-efficacy for reflective teaching. It is thus possible to conclude that there no statistical significance between the gender of the pre-service teachers and self-efficacy beliefs for reflective teaching.

(ii) Pre-service teachers' departments and reflective teaching efficacy

This section analyses differences in reflective teaching efficacies of pre-service teachers in relation to pre-service teachers' departments.

Table 5.10: Relationship between pre-service teachers' reflective efficacy and departments in ETEIs

ANOVA

Pre-service teachers' departments

	Sum of Squares	Df	Mean Square	F	Sig.
Between Groups	139.499	4	34.875	.706	.589
Within Groups	6025.398	122	49.389		
Total	6164.898	126			

Table 5.10 shows the aspects of the reflective teaching efficacy of the pre-service teachers due to the reflective teaching practices to their ability to learn in a manner that was making them reflective teachers. The findings indicate that $F(4, 122) = .706$; $p = 0.589$; $p > 0.05$, thus, results are insignificant. It is thus confirmed that there is no significant and statistical difference between the departments of the pre-service teachers and self-efficacy beliefs for reflective teaching in secondary schools. This means that the self-efficacy belief, which is expressed by the number of experiences and skills acquired by the pre-service teachers to reflective teaching, is not related to pre-service teachers' departments.

From section 3.2.4.6, research has shown that different factors affect teachers' sense of efficacy significantly. Some of these factors are gender, student achievement, formal teacher education, and having a state-issued teaching credential (Tuchman & Isaacs, 2011). Yet, this study found that gender of the pre-service teachers did not bring a significant difference in their sense of efficacy for reflective teaching. Keshavarzi and Fuman (2015) also found that gender have no impact on teacher's reflectivity, even though it was observed to be a contributing factor in teaching style. Contrary, Aghaei and Jadidi (2013) investigated that teachers' gender had effect on teachers' reflectivity. As a result, the male participants were found to be more reflective in their teaching practices than the female participants (Latchanna & Daker, 2016), which is different from the findings of this study.

Finally, when understanding the results of this empirical investigation, the findings were mixtures of both high and low self-efficacies for reflective teaching. Section

3.2.5 indicated that reflective teaching practices both in the developed and in developing countries have been found to bring mixed results. Consequently, reflective teaching practices in the developed countries have been criticized for lacking empirical bases; changes in the theoretical conceptions for practice have produced diverse results about practitioners' efficacy. In contrast, changes in the developing countries have been criticized for importing unfamiliar models (Leavitt, in Seng, 2001; Hourani, 2013).

On the other hand, in section 3.2.4.6, Bolin (1988) ascertained that there is a positive link between teachers' reflectivity and growth in their abilities to effect quality learning in their students, while some studies have reported about its efficacy in promoting change and improvement to practice there is, however, little evidence to link reflection to teacher effectiveness (Bolin, 1988). Yet, Henson (2001) did a research on teacher self-efficacy and highlighted its significant relationship with teacher behaviours and student learning.

From section 3.2.4.6, a study by Akbari and his colleagues also found that the affective component of reflective teaching, which is concerned with teachers' reflecting on students' learning, behaviour, and emotional responses in the classroom was found to be significantly related to efficacy for the pre-service teachers for students' learning and teaching strategies (Akbari, et al., 2010). This section indicated that for teacher education programme to be effective in developing teachers' self-efficacy, it is essential to provide planned experiences for trainee teachers that can motivate them to thoroughly engage in reflections.

5.3.2.5 Pre-service secondary teachers' perceptions about reflective teaching

Section 5.3.2.5 analyses pre-service teachers' perceptions about reflective teaching. The data were collected from the questionnaire consisting of 16 items related to the pre-service teachers' attitudes towards reflective teaching (Appendix A section 5). The data collected from the responses of the pre-service teachers to the items in the study were analyzed in percent (%) and frequency (f). The frequency (f) and percent (%) distribution of pre-Service secondary school teachers' responses to the 16-item

questionnaire used in the study are given in the following tables.

Table 5.11: Pre-service teachers' perception of reflective teaching practices

No	Item: paraphrase of question	Response	Frequency	Percentage	Mean
1	Reflective teaching is a noble teaching method.	Strongly Disagree	5	3.9	3.6929
		Disagree	17	13.4	
		Undecided	25	19.7	
		Agree	45	35.4	
		Strongly Agree	35	27.6	
2	Reflection makes teaching complex.	Strongly Disagree	32	25.2	2.5039
		Disagree	40	31.5	
		Undecided	15	11.8	
		Agree	28	22.0	
		Strongly Agree	12	9.4	
3	I prefer reflective teaching to other types of teaching.	Strongly Disagree			3.9213
		Disagree	11	8.7	
		Undecided	25	19.7	
		Agree	54	42.5	
		Strongly Agree	37	29.1	
4	Reflective tool will have an impact on my teaching prospects.	Strongly Disagree			3.9921
		Disagree	5	3.9	
		Undecided	28	22.0	
		Agree	57	44.9	
		Strongly Agree	37	29.1	
5	Reflective teaching enhances class participation.	Strongly Disagree	3	2.4	3.9843
		Disagree	14	11.0	
		Undecided	13	10.2	
		Agree	49	38.6	
		Strongly Agree	48	37.8	
6	Reflective tools make teaching significant.	Strongly Disagree	2	1.6	4.0787
		Disagree	10	7.9	
		Undecided	12	9.4	
		Agree	55	43.3	
		Strongly Agree	48	37.8	
7	Reflective teaching helps pre-service teachers learn from their experiences.	Strongly Disagree	7	5.5	3.8425
		Disagree	15	11.8	
		Undecided	14	11.0	
		Agree	46	36.2	
		Strongly Agree	45	35.4	
8	Reflective teaching makes teaching and learning easier.	Strongly Disagree	5	3.9	3.8583
		Disagree	17	13.4	
		Undecided	13	10.2	

		Agree	48	37.8	
		Strongly Agree	44	34.6	
9	Reflective Teaching enhances classroom interactions.	Strongly Disagree	1	.8	
		Disagree	6	4.7	
		Undecided	20	15.7	
		Agree	52	40.9	4.1024
		Strongly Agree	48	37.8	
10	Reflective teaching makes the classroom management difficult.	Strongly Disagree	39	30.7	
		Disagree	55	43.3	3.9948
		Undecided	3	2.4	
		Agree	12	9.4	
		Strongly Agree	18	14.2	
11	Reflective Teaching helps students take responsibility for learning.	Strongly Disagree	13	10.2	
		Disagree	12	9.4	
		Undecided	14	11.0	3.7795
		Agree	39	30.7	
		Strongly Agree	49	38.6	
12	Reflective teaching is an irrelevant thing put into the curriculum.	Strongly Disagree	28	22.0	2.8346
		Disagree	32	25.2	
		Undecided	21	16.5	
		Agree	25	19.7	
		Strongly Agree	21	16.5	
13	Reflective teaching can improve my attitude towards teaching profession.	Strongly Disagree	1	.8	
		Disagree	13	10.2	
		Undecided	20	15.7	3.9370
		Agree	52	40.9	
		Strongly Agree	41	32.3	
14	Reflective teaching determines the effectiveness of teachers.	Strongly Disagree	1	.8	
		Disagree	18	14.2	
		Undecided	21	16.5	3.7795
		Agree	55	43.3	
		Strongly Agree	32	25.2	
15	Reflective teachers take ownership of personal continuing professional development.	Strongly Disagree	1	.8	
		Disagree	17	13.4	
		Undecided	16	12.6	3.8976
		Agree	53	41.7	
		Strongly Agree	40	31.5	
16	Reflective teaching can be an improvement in the quality of education.	Strongly Disagree	5	3.9	
		Disagree	10	7.9	
		Undecided	18	14.2	
		Agree	53	41.7	3.9055
		Strongly Agree	41	32.3	

When Table 5.11 is examined, the pre-service secondary school teachers have stated the items which reported that reflective teaching is a noble teaching method 90 (63%). Moreover, the pre-service secondary school teachers have stated they

have that reflective teaching is not complex 72 (56.7%) as a result the majority of the pre-service teachers believed that they preferred reflective teaching to another type of teaching methods 91 (71.6%) they think Reflective tools have an impact on their teaching prospects 94 (74%) and there will be more classroom participation 97 (76.4%).

The pre-service secondary school teaching teachers think that Reflective tools make teaching significant 103 (81.1%), reflective teaching helps pre-service teachers learn from their experiences 91 (71.6%), reflective teaching makes teaching and learning easier 92 (72.4%), and improve classroom interactions from the reflective teaching practices 100 (78.7%), classroom management will get simple 94 (74%) and students take responsibility for learning 88 (69.3%) are correct.

The pre-service teachers have stated that reflective teaching is a relevant professional practice put into the existing secondary teacher education curriculum 60 (47.3%) and bring pre-service teachers' attitudes towards teaching profession 93(73.2%), determines teaching effectiveness 87(68.5%) because reflective teachers take ownership of personal continuing professional development 93 (72.2%) and the pre-service teachers think that reflective teaching can provide improvement for quality of education 94 (74%).

The quantitative responses about the perceptions of reflective teaching were in harmony with the qualitative results. Almost all of the participants do value reflection and recognize its importance for better teaching. Among some of the qualitative outlooks about the reflective teaching by the pre-service teachers were the following:

It is a professional engagement that affects the teachers' teaching insights in a positive way as a result the teachers' become problem solvers.

The amount of reflective teaching practices in the teacher education and the feedbacks received from the teacher educators and cooperating teachers make pre-service teachers get to know the importance of reflection.

As the school-based practices in teacher education increases, the pre-service teachers lean teaching because reflection requires practically engagements and keep on thinking; as a result, the pre-service teachers will get better.

Reflection makes teaching better and enhances learning. This will cause an improvement in secondary school education.

Due to the reflective teaching practices, teaching and learning in the secondary schools become lovely and improves the classroom interactions as a result; the classroom management becomes less painful.

Reflective teaching is called as research- based teaching due to the pre-service teachers' abilities to solve immediate problems happening in the classrooms and schools after teaching practices and then returning back into their experiences as a result of challenges faced during the teaching practices from the schools.

Likewise, the teacher educators had similarly positive views about the importance and purpose of reflection. Some of the comments by the teacher educators were as following:

Reflection helps to think practitioners back to the activities and tasks done or to be able to critically examine the teaching and learning process while in the process and try to find ways of improvement for better teaching and learning. (TE 2)

lifelong learning and the creation of community of learners can be achieved by the appropriate understandings and adequate experiences with reflection. Reflective teaching makes practitioners I engage in social discourse and produce common understanding. Ultimately, teachers become facilitators of students' learning. (TE6)

Reflection provides pre-service teachers wisdom over their own learning. It's like a ladder for continuing personal and professional

learning. If a practitioner is unable to reflect on his/her learning, he/she cannot move onto the next stage of learning. Reflection secures learning. (TE 3)

Nowadays reflective teaching is becoming a popular teaching method in the teaching profession in Ethiopia. People leading and managing the education sector are expecting results based education. Therefore, it's a major determinant teachers' skill and education institutions want reflective practitioners. (TE7)

(i) Gender and reflective teaching attitudes

Table 5.12 presents pre-service teachers' reflective teaching attitudes and gender differences. It shows the independent sample test results of the pre-service teachers' questionnaire scores related to the importance of the reflective teaching according gender. Independent Sample T-Test was used to decide whether there was a substantial deviation between the pre-service teachers' perception levels they hold around the reflective teaching due to their gender differences.

Table 5.12: Pre-service teachers' reflective teaching perceptions and gender

		Sum of reflective efficacy	
		Equal variances assumed	Equal variances not assumed
Levene's Test for Equality of Variances	F Sig.	2.271 .134	
t-test for Equality of Means	T	1.717	1.546
	df	125	16.976
	Sig. (2-tailed)	.088	.141
	Mean Difference	3.71548	3.71548
	Std. Error Difference	2.16365	2.40346
	95% Confidence Interval Lower	-.56666	7.99762
	of the Difference Upper	-1.35594	8.78690

When Table 5.12 is assessed, the pre-service teachers' perception levels related to the importance of reflective teaching according to gender do not show a significant

difference ($p = .088$; $p > 0.05$). This proves that the groups do not differ in their perceptions they hold about the significance of reflective teaching.

(ii) Pre-service teachers' attitudes towards reflective teaching and departments

This section presents pre-service teachers' attitudes towards reflective teaching in terms of the subjects they are teaching. In order to find out whether there is a substantial divergence between the perception levels of the pre-service secondary school teachers about the reflective teaching and their departments, a parametric test for no relationship samples, one-way analysis of variance, One-Way ANOVA was applied.

Table 5.13: Pre-Service Teachers' Reflective Teaching Perceptions and Subject Differences

ANOVA					
Pre-service teachers' departments					
Sum of Perceptions	Sum of Squares	Df	Mean Square	F	Sig.
Between Groups	161.063	4	40.266	.633	.640
Within Groups	7762.449	122	63.627		
Total	7923.512	126			

Results in Table 5.13 show that $F(4, 122) = .633$; $p = .640$; $p > 0.05$, hence results are insignificant. It is therefore concluded that there is no a significant and statistical difference between the departments of the pre-service teachers and their perceptions for reflective teaching. This means that the perceptions of the pre-service teachers to reflective teaching are not related to the subject matter they are teaching.

This section of the study attempted to find out how secondary school pre-service teachers perceived reflective teaching. From Chapter 3 (3.4.2), the achievement of all methods in reflective teaching is dependent on attitudes (Jacobs, et al., 2011). Jacobs, et al. (2011) also argue that teachers need attitudes of open-mindedness and whole-heartedness so that they are able to question their own and other teachers' beliefs and practices.

According to this study, considering the descriptive scores, it might be confirmed that the pre-service teachers exhibited positive attitudes to reflective teaching. As a result, pre-service secondary school teachers think they can benefit from such practices and methods. This result is also reflected both in the quantitative and qualitative data, which showed that the pre-service teachers do have enough perceptions on this issue. In addition, it has been seen that the majority of the pre-service teachers recognized acceptable relationships between the levels of reflective practices and increase in learning to teaching and believed reflective teaching determines the effectiveness of teaching.

These findings were in accord with the previous findings (Chapter 2, section 2.6) reviewed by this study for its empirical comparisons about reflective teaching (Ogonor & Badmus, 2006; Larrivee, 2008; Akbari, 2010; Hyacinth & Mann, 2014; Taole, 2016). These results might be inferred in the way these pre-service teachers had an inclination towards reflective teaching, specifically the value for reflective teaching during their reflective teaching practices. Another interpretation is concerned with their predisposition to establish the importance of reflective teaching to their professional development so as to be able to analytically reflect on classroom practices.

Furthermore, from Chapter 2 (2.6), Ogonor and Badmus (2006) investigate reflective teaching among pre-service teachers during their teaching practice and found that pre-service teachers were able to feel the importance of reflection and reflective teaching. Hyacinth and Mann (2014) also discovered that pre-service teachers' perceptions of reflection motivate the teachers to further learning.

In this regards, Akbari (2010) contends that reflective teaching perceptions of the pre-service teachers are concerned mainly with the personal development of the individual and reflection is translated into action and brings improvements in the teaching and learning process. Thus, pre-service teachers agreed that varying their teaching methods could enhance learners understanding and participation (Taole, 2016). However, Larrivee (2008) indicates that teachers operating at this level focus on strategies and methods used to reach predetermined goals.

Based on the above results, it is seen that there is no statistical difference between pre-service teacher's attitudes towards reflection based on the gender and department of the pre-service teachers. This led us to conclude that being female or male pre-service teacher or being social or natural science teacher did not have a significant impact on pre-service teachers' attitudes to reflective teaching (Gürbüz & Kışoğlu, 2007; Aghaei & Jadidi, 2013; Lemon & Gravis, 2014). This finding resonated with prior studies (chapter 2 section 2.6 and Chapter 3 section 3.2.4.6).

From Chapter 2 (2.6), Gürbüz and Kışoğlu (2007) discover that teachers did not show difference in their attitudes to reflective teaching based on the faculty type, which had a similar line with this research. From section 3.2.4.6, however, Aghaei and Jadidi (2013) set up that the awareness of reflective teaching of teachers depends on the gender of the teacher which is dissimilar with this research finding. Lemon and Gravis (2014) who studied encouraging reflective practice through the use of a reflective template in secondary schools and gender in terms of the use of reflective teaching strategies in their teaching and learning processes reported of better understanding of the students' learning and also is required for quality education.

5.3.2.6 Factors affecting reflective teaching

Table 5.14 summarizes the factors affecting pre-service teachers' reflective engagement in the current pre-service teacher education programme (Appendix A, section 6). Although, the use of reflective theory indicates a number of factors that challenge pre-service teacher's reflective development however, this table comprised the most critical factors promoting or inhibiting reflective teaching and learning in initial teacher education programmes.

Table 5.14: Descriptive Statistics of the Factors Affecting Reflective Teaching Experience

No	Item: paraphrase of question	Response	Frequency	Percentage	Mean
1	Insufficient Knowledge gained from professional courses.	Strongly Disagree	2	1.6	3.827
		Disagree	16	12.6	
		Undecided	22	17.3	
		Agree	49	38.6	
		Strongly Agree	38	29.9	

2	Poor preparations for reflections.	Strongly Disagree	8	6.3	3.717
		Disagree	11	8.7	
		Undecided	30	23.6	
		Agree	38	29.9	
		Strongly Agree	40	31.5	
3	Inadequate school based teaching practices.	Strongly Disagree	1	.8	4.047
		Disagree	11	8.7	
		Undecided	16	12.6	
		Agree	52	40.9	
		Strongly Agree	47	37.0	
4	Lack of resources(templates, formats, guidelines, textbooks, checklists)	Strongly Disagree	22	17.3	3.024
		Disagree	30	23.6	
		Undecided	23	18.1	
		Agree	27	21.3	
		Strongly Agree	25	19.7	
5	Lack of time for reflective teaching practices	Strongly Disagree	15	11.8	3.457
		Disagree	24	18.9	
		Undecided	13	10.2	
		Agree	38	29.9	
		Strongly Agree	37	29.1	
6	Limited reflective teaching and learning activities of the program.	Strongly Disagree	24	18.9	2.874
		Disagree	36	28.3	
		Undecided	17	13.4	
		Agree	32	25.2	
		Strongly Agree	18	14.2	
7	Inadequate professional support by university supervisors.	Strongly Disagree	10	7.9	3.724
		Disagree	17	13.4	
		Undecided	16	12.6	
		Agree	39	30.7	
		Strongly Agree	45	35.4	
8	Weak schools and university linkage.	Strongly Disagree	30	23.6	2.764
		Disagree	34	26.8	
		Undecided	19	15.0	
		Agree	24	18.9	
		Strongly Agree	20	15.7	
9	Lack of knowledge by cooperative teachers for reflective teaching practices.	Strongly Disagree	12	9.4	3.425
		Disagree	25	19.7	
		Undecided	19	15.0	
		Agree	39	30.7	
		Strongly Agree	32	25.2	
10	Lack of awareness about the purpose of reflective teaching.	Strongly Disagree	15	11.8	3.709
		Disagree	18	14.2	
		Undecided	7	5.5	
		Agree	43	33.9	
		Strongly Agree	43	33.9	

According to Table 5.14, the pre-service teachers pointed out of insufficient knowledge they gained from the professional courses affected their reflective experiences 87 (68.5%). Moreover, the pre-service teachers' poor preparation for

reflective teaching impacted their reflectivity 78 (61.4%), they think inadequate school exposure has an effect on their reflective teaching preparations, yet even number of the pre-service teachers stated that lack of the reflective resources was either promoting or hindering their reflective teaching readiness 52 (40%). On the other hand, the pre-service teachers disagreed that the existing pre-service teacher education programme lacked reflective activities 60 (47.2%).

The pre-service secondary school teaching teachers believed that lack of time for reflections 75 (59%), inadequate feedbacks and support from the teacher's educators 84 (66.1%), weak school and teacher education institution linkages 64 (50.4%), lack of reflective knowledge by their cooperating teachers 71 (55.9%), and lack of awareness about the existing teacher education curriculum 86 (97.8%) hindered their reflective teaching.

Moreover, focus group interviews were carried with the pre-service and cooperating teachers to collect views and opinions about the factors affecting the implementation of reflective teaching practices within the current teacher education programme.

As a result, the qualitative results identified the very key factors affecting the implementation within the current teacher education programme. The qualitative results do go in agreement with the quantitative results for the factors influencing the reflective teaching execution as collected using the questionnaire. Some of the responses are given as follows:

Pre-service teachers lacked time to develop their reflective teaching skills and cover the tasks expected by the programme. Doing the practicum only on block basis did not provide sufficient time for the pre-service teachers to reflective teaching practices. (Cooperating teachers)

The use of reflective tasks has been forgotten in the teaching and learning process. There is no use of reflective tasks in teaching and learning. During the lectures, practical cases were not presented and this impacted our problem-solving abilities. Reflective tasks were very useful for us to practice reflective teaching. (Pre-service teachers)

Most of the university teachers use LCD projectors in order to cover the whole topic quick. The method was mainly of teacher presentation. It is not essential to the teachers whether we understand the contents or not. This prevented the opportunity to learn reflective teaching during the pre-service courses. (Pre-service teachers)

... a few numbers of university teachers do not supervise the pre-service teachers as scheduled in the practicum guideline. There are some pre-service teachers who have never been supervised for the past three weeks. (Cooperating teachers)

Most pre-service teachers lack professional support and feedbacks such discussions and comments for their reflective teaching experiences. It is important that teacher educators and school teachers provide continuous and constructive feedbacks for pre-service teachers. They should try hard to provide extra time to help pre-service teachers do their school-based teaching practice as a means of motivating them to learn reflective teaching and promote reflections. (Cooperating teachers)

The pre-service teachers do have very good academic knowledge. But most of the pre-service teachers seem to have low level of pedagogical training to practice effective teaching and learning in the schools. I found most of the pre-service teachers unable to prepare lesson plans and use a variety of teaching methods. (Cooperating teachers)

Our cooperating teachers are good at helping us teach in their classes. But some of the cooperating teachers lack training to support reflective teaching and learning in the schools. As a result, we couldn't find adequate information about the classes for our action research projects. (Pre-service teachers)

Likewise, the individual interviews taken with the teacher educators indicated a number of factors affecting the reflective teaching practices inside the present teacher education. Some of the teacher educators' responses are set as follows:

I believe the management of reflective teaching affected reflective teaching and learning in the existing programme. I know there are efforts to improve linkages with the partner schools for reflective teaching schools, but so far the partnerships are not so strong. When we pre-service teachers sent to school observations, they are not getting appropriate support and guidance. (TE5)

As an action research advisor to the pre-service teachers, due to lack of knowledge and awareness about the reflective tools, the pre-service teachers faced difficulty to reflect and perform the action research projects is hampered. (TE7)

'Lack of time has negative effects on reflective teaching practices. Pre-service teachers are placed in schools very late.' (TE2)

"One of the teacher educators wonders why the Ministry of Education places the pre-service teachers late in the teacher education institutions. This reduced the time allotted for reflective teaching and learning. The teacher educators are struggling to cover the contents. (TE1)

I think the structure and course order in the existing secondary school teacher education curriculum affects pre-service teachers' reflective teaching and learning. While it is a noble idea that pre-service teachers should be taught the course entitled teachers as reflective practitioners in the programme, but the course arrangement should be seriously worked out. Pre-service teachers should be adequately learnt reflection and reflective teaching before they are placed in secondary schools. Most often pre-service teachers learn the course just a few weeks before placements. Such pre-service teachers lack pedagogical knowledge. (TE8)

This section analysed and examined factors promoting or inhibiting pre-service teachers' reflective learning development in order to construct an empirical framework for reflective teaching and learning in pre-service secondary school teacher education in Ethiopia. From Chapter 2 (2.6), these findings were in harmony

with the previous findings from literature in this regard (Ferraro, 2000; Loughran, 2002; Sahin–Taskin, 2006; Russo & Ford, 2006; Grudnoff, 2011; Hourani, 2013).

From Chapter 2, sections 2.4 and 2.6, educational researchers examined the factors that affect decision-making and the characteristics that attributed to the quality of reflection. Accordingly, they identified numerous barriers to reflective teaching, such as time constraint, lack of awareness about the purpose of reflection; fear that the new approach may be less effective than the existing one and threats to sensitive beliefs, values and feelings (Loughran, 2002; Russo & Ford, 2006). This study is very similar with this research study.

From Chapter 2 (2.6), Grudnoff (2011) investigated first-year primary teachers' perceptions of how their practicum experiences prepared them for starting teaching in New Zealand. And the study showed that, while the beginning teachers consistently viewed the practicum as being a key part of their initial teacher education, their practicum experiences were not always helpful in supporting their move into teaching. While acknowledging that the practicum cannot replicate the conditions of full-time teaching, the findings suggested that the practicum should be reconsidered so as to effectively prepare the pre-service teachers for the complexities and demands of beginning teaching.

A research study by Hourani (2013) on the perceptions of the pre-service teachers had about reflection, their preparedness to become reflective practitioners and the constraints and limitations that hindered pre-service teachers from reflecting on their teaching revealed various limitations and constraints to reflection. This included language barrier, multilayered tasks, nature and dimension of reflection, lack of reflection skills, absence of post development plan, emotional barrier, and external locus of control and socio-cultural context of learning.

Furthermore, from section 2.6, Sahin–Taskin (2006) ascertained that many teacher education programmes have provided pre-service teachers with inadequate opportunities to engage them actively in developing and teaching lessons and to help them connect research and practice as well as develop research-based teaching strategies. However, it is indicated that action research was not properly used to encourage inquiry-based teaching by the pre-service teachers (Sahin–Taskin, 2006).

Moreover, the absence of peer and self-observation, which need to be embedded in the teachers' training programmes, are also considered the main factors that hinder reflection among pre-service teacher (Ferraro, 2000).

In sum, section 3.4.4, in search for variables that fit our conceptualization of pre-service teachers' reflective learning and teaching in the teacher education curriculum framework, the study proposed a reflective teaching model (Kumari, 2014). The utilization of reflective teaching model was seen useful for the key stakeholders in the present pre-service teacher education programme. Researchers found reflective teaching process, which is fluid and needed lucidity to be more convenient if the key stakeholders knew the desires of the framework of the study. The framework is comprised of the previously mentioned issues. Aggregately, the themes achieve the research aim (1.5) of this study. From section 3.4.4, Kumari (2014) delineates a potential reflective teaching framework, which accentuates the key areas of reflective teaching development; the introduction, execution, and reflection components for better reflective teaching capabilities within the pre-service teacher education curriculum.

5.3.2.7 Areas of improvement for better reflective teaching

Table 5.15 presents pre-service teachers' perceived areas of improvement in the existing secondary school teacher education for better reflective teaching (Appendix A, section 7).

Table 5.15: Responses to practical solutions to improve reflective teaching

No	Item: paraphrase of question	Response	Frequency	Percentage	Mean
1	Enhancing preparation for reflective teaching practices.	Strongly Disagree			
		Disagree	8	6.3	
		Undecided	15	11.8	
		Agree	50	39.4	4.181
		Strongly Agree	54	42.5	
2	Improving understanding about reflective teaching among the stakeholders.	Strongly Disagree	8	6.3	
		Disagree	9	7.1	
		Undecided	14	11.0	
		Agree	44	34.6	3.969

3	Providing reflection resources.	Strongly Agree	52	40.9	3.906
		Strongly Disagree	5	3.9	
		Disagree	8	6.3	
		Undecided	18	14.2	
		Agree	59	46.5	
4	Training for cooperative teachers about reflective teaching.	Strongly Agree	37	29.1	4.032
		Strongly Disagree			
		Disagree	15	11.8	
		Undecided	13	10.2	
		Agree	52	40.9	
5	Creating school-institute partnerships.	Strongly Agree	47	37.0	4.142
		Strongly Disagree			
		Disagree	5	3.9	
		Undecided	17	13.4	
		Agree	60	47.2	
6	Providing orientations for the reflective.	Strongly Agree	45	35.4	3.921
		Strongly Disagree	1	.8	
		Disagree	17	13.4	
		Undecided	14	11.0	
		Agree	54	42.5	
7	Providing sufficient time for reflective teaching practices.	Strongly Agree	41	32.3	3.315
		Strongly Disagree	15	11.8	
		Disagree	22	17.3	
		Undecided	29	22.8	
		Agree	30	23.6	
8	Improving the support systems for reflective teaching practice.	Strongly Agree	31	24.4	3.835
		Strongly Disagree	5	3.9	
		Disagree	18	14.2	
		Undecided	8	6.3	
		Agree	58	45.7	
9	Improving University teachers' guidance for reflective teaching.	Strongly Agree	38	29.9	3.819
		Strongly Disagree			
		Disagree	17	13.4	
		Undecided	20	15.7	
		Agree	59	46.5	
10	Making reflection an integral part of the program.	Strongly Agree	31	24.4	3.819
		Strongly Disagree	8	6.3	
		Disagree	14	11.0	
		Undecided	18	14.2	
		Agree	40	31.5	
		Strongly Agree	47	37.0	

According to Table 5.15, the pre-service teachers think that they there should be enhanced preparation for reflective teaching 104 (81.9%). As a result, the pre-service teachers expressed orientations should be given for the reflective practices 95 (74.8%). In order for improved reflective teaching practices to happen, the pre-service teachers agreed that sufficient time should be given for reflective teaching practices 61 (48.3%).

The pre-service teachers also believed that they should have an improved understanding about reflection 96 (75.6%); provision of reflection resources should be improved 96 (75.6%); they agreed that there should be training programme for cooperating teachers 99 (77.95%); majority of the pre-service teachers stated that the schools and teachers educations partnership should be strong 105 (82.7%); the pre-service teachers also raised that the support system for reflective teaching should be considered 96 (75.6%); and the pre-service teachers believe that the teacher educators guidance for reflective teaching experiences is one of the aspects of the existing programme should workout 90 (70.87%). Finally, the pre-service teachers considered reflective practices should be an integral part of the programme to be able to help them become reflective teachers 87 (68.50%).

In addition, the analysis results of the responses both from the individual interviews with the teacher educators and focus group interviews as to how to improve the reflective teaching practices in the current teacher education programme corroborate the quantitative results gathered through the questionnaire. Some of the improvement ideas suggested by the respondents are specified below:

Pre-service teachers should get adequate time and school based experiences to develop their reflective teaching skills. (TE7)

The use of various reflective tools and consistent way of using teaching methods in the current teacher education programme can impact our teaching skills. (Pre-service teacher)

I see the importance of intensive English language training for the pre-service teachers. As a supervisor of pre-service teachers in my

school, most of them lacked language proficiency and as a result they couldn't write good reports about their teaching experiences. (TE 6)

I think the pre-service teachers should be well acquainted with reflection. Pre-service teachers' perceived reflection and reflective teaching as unique methods of testing theories and acquire knowledge for teaching. Yet, I couldn't find any responses from them stating reflection as a means of self-examination in terms of seeing one's weakness and strengths for better teaching and learning process. (TE3)

The practicum guideline needs revision. It is bulky and not well organized. There are a number of irrelevant things into it. The guideline should be focused and few in number. If the pages are reduced and the focus of the guideline is clear, then reflection becomes easy for us. (Pre-service teacher)

Most of the pre-service teachers are not comfortable with working their action research projects. I have asked my advisees and said they did not get enough knowledge about action research. Hence, I think this must be changed. I know there is a course entitled teachers as reflective practitioners focusing on teaching an action research, but practically most of them are not able to understand the basics of action research. Thus, pre-service teachers are not implementing the inquiry based teaching method. So, efforts must be done to enhance pre-service teachers' knowledge and skills of doing action research. (TE5)

The templates we are using to assist the pre-service teachers should be revised. I have been using the reflective teaching evaluation checklists to assess pre-service teachers' performance during teaching practicum, but they are not clear and need revision. (CT)

The feedback mechanism in our programme should be enhanced. Many of us are not getting continuous feedbacks about our learning from the schools and know our performances in practice. In this regards,

cooperating teachers are relatively better in providing comments about our classroom performance, but university teachers' feedback provision needs revision. The feedbacks should be constructive. Some of the university teachers' feedbacks are too harsh. (Pre- service teacher)

There is lack of reading materials in the institute. The institute gives us action research project module and practicum guideline for teaching practices, but for our theoretical classes there are not adequate materials to read for further understandings. Instructors' slides are not enough to understand teaching. The modules are not accessible and adequate. Thus, this should be improved. (Pre- service teacher)

In theory we know the importance of peer teaching, but practically there is no such thing in this programme. This should be changed. We must learn each other. In schools also there must be a programme inviting peers to observe and evaluate us. The guideline states the use of it, but we are not using. Therefore, the teacher education institution must facilitate this. (Pre-service teacher)

These findings were in agreement with the previous findings in this regard (Taylor & Head, 1997; Villegas-Reimers, 2003; Kahn & Walsh, 2006; Roe, et al., 2010; Farrell, 2007; Francis & Cowman, 2009; Smith, 2005).

From chapter 3, section 3.2.4, research studies identified a variety of reflective tools to enhance pre-teachers' reflective teaching skills in teacher education programme, namely action research projects, mentoring, case studies of students, portfolios, teachers, classrooms, reflective journals, and schools, microteaching, and structured curriculum tasks foster reflection (Villegas-Reimers, 2003; Smith, 2005; Kahn & Walsh, 2006; Farrell, 2007; Francis & Cowman, 2009; Roe, et al., 2010).

Furthermore, from Chapter 3, section 3.2.4.4, Strugress and Priest (2005) depict a teacher development group as any type of co-operative and progressing course of action between two or more teachers to cooperate for professional improvement. Moreover, reflection in a group setting gives a richer experience by enabling the pre-service teacher to expose their own convictions in a safe environment. Collective reflection, regardless of whether formal or informal, gives an academic ordeal for the

pre-service teachers to construct a learning network (Strugress & Priest, 2005). On the other hand, from section 3.2.4.6, Villegas- Reimers (2003) in their study found out portfolios the new way in the existing teacher education programmes in which pre-service teachers need to demonstrate their higher level cognitive thinking and self-reflective growth upon graduation.

The above results identified the major areas of interventions and suggest scholarly tools that can be employed in the pre-service teacher education curriculum framework. These tools can improve pre-service teachers' teaching preparation and achieve better reflective teaching engagement through active the reflective framework of this study. As a result, pre-service teachers' understanding of reflective teaching can be broader; as reflection is a noteworthy for reflective practitioners' growth. Finally, the study ascertained that reflective teaching is valuable for strengthening pre-service teachers' analytical ability; and the end goal is to help them develop their own workable teaching outlooks.

5.4 SUMMARY

Chapter 5 analysed and interpreted the results obtained using both the quantitative data with qualitative data. Research questions were formulated to guide the research process. The data analyses and interpretations included descriptions of demographic characteristics of the participants, determinations of the reliability and validity of the data gathering instrument, the level of introduction to reflective teaching, the roles of cooperating teachers for reflective teaching practices, the availability of reflective tools, pre-service teachers self-efficacy for reflective teaching, pre-service teachers perceptions about reflective teaching, factors affecting the implementation of reflective teaching, and the areas of improvement for better reflection practices in the current pre-service secondary school teacher education programme.

Results showed that the demographic data of the pre-service teachers revealed that the majority of the pre-service teachers were from the natural science departments and males. This indicated that the existing pre-service teacher education programme is male-dominated.

With regards to the reliability and validity of the pre-service teachers' questions were good enough for better research outcomes. Further analysis and interpretations of data found that pre-service teachers' introduction and orientation for reflective teaching practices was not satisfactory; there was no department differences in terms of being introduced for reflective teaching; the study ascertained that the roles of the cooperating teachers for the reflective teaching practices was positive; the availability of reflective tools for reflective teaching were scarce; the self-efficacy for reflective teaching as confirmed by the participants were low; however, the results showed that pre-service teachers do have positive perceptions about the importance of reflective teaching; factors affecting reflective teaching and the possible areas of intervention for better reflective teaching in the TEI have been identified.

This study called for the development of a scholarly blueprint to guide effective reflective practices in TEI. In the next chapter, the syntheses of the review of recent theories and the empirical responses to the existing reflective teaching implementation, adapted the iterative approach to reflective teaching and learning for better reflective teaching execution. The proposed outline combined the important features to form effective reflective teaching system to responding the current state of reflective teaching implementation in TEI. The scheme includes the input requirements, the process considerations, and the outcomes as to how the current state of reflective teaching in TEIs would be improved.

5.5 CONCLUDING REMARKS

This study focused on how to improve the reflective teaching practices in the pre-service teacher education programme in Ethiopia. The reflective teaching implementation framework, which portrayals the essential components and methods within a pre - service teacher education context, were considered for the points of this investigation. All through the data analysis and interpretations respondents mentioned that reflective teaching curriculum is paramount important for reflective teachers. Fundamentally, the research participants convey that varied techniques for reflection are critical for better reflective teaching implementation in the current pre-service teacher education programme.

At first, I believed detailed and systematic arrangements of reflective teaching for better reflective teacher development in the pre-service teacher education programme. This included setting curriculum objectives; identification of relevant reflective practices, and provision of continuous assessment and feedback procedures. This type of reflective teaching organization could be the answer for better reflective execution, since this approach is expected to give a widespread structure to reflective teaching development. Be that as it may, after this investigation, the system is anticipated to advance in a logical way. Truly, it is critical in any case an organized system, the pre-service teachers should be familiar, versatile, and open to change dependent on the needs and ventures required for reflective teaching.

The most imperative parts of this research are related to the mixed methodology, as both the quantitative and qualitative topics were rose up out of the data collections and well analysed and interpreted thoroughly. In the course of the investigation, adequate preparation, coaching, varied reflective tools, sound attitudes and commitments for reflective teaching were the key considerations the research respondents talked about in this study. Besides, for better reflective teaching executions within the current pre-service teacher education, the system should incorporate innovative methods that this research has investigated. This investigation finishes up with the last part of this study which incorporates looking into suggestions from the collected data and gives closing comments in regards to the collected data.

The next chapter presents the summary, conclusion, and recommendations to the study. The summary will present the syntheses of the key review and the empirical findings of the study. The conclusion will also provide answers to the research questions of this study as building blocks towards the answer to the basic research question. Finally, recommendations will be given by indicating the areas of improvement with regards to how to effectively implement the reflective teacher education curriculum in ETEIs as well as provides concluding remarks regarding the collected data.

CHAPTER 6

SUMMARY, CONCLUSIONS AND RECOMMENDATIONS

6.1 INTRODUCTION

Chapter 1 introduced the research study. It included the introduction, background to the study, statement of the problem, research questions and objectives of the study. Chapter 2 provided an outline of the contextual framework. It discussed the context in which the issue under this study was being in action. Furthermore, the chapter highlighted the key opportunities and challenges of reflective teaching as experienced in practice. Chapter 3 discussed the conceptual and theoretical underpinnings for reflective teaching practices. In addition, the chapter examines the educational theories and their influence on reflective teaching, the reflective teacher education programme, and the adoption of reflective teaching framework.

Chapter 4 discussed the methodology used to guide the empirical part of the study. The research design and methods employed in the research were discussed in detail. As a result, the pragmatic paradigm that used mixed methods approach for data collection and analysis has been presented. In Chapter 5, data was presented, analysed and interpreted, guided by the research questions. Part of the analysis of data involved developing a framework that can be used by teacher education institutions to enhance reflective teaching practices (3.4.4).

This study was carried out on the assumption that reflective curriculum implementation in pre-service teacher educations institutions can be improved if the enablers and challenges of the reflective teacher education curriculum presently implemented are identified to be able help develop a model of effective reflective teaching practices.

As a resolution, the aim of the study was thus to examine and enhance secondary school's pre-service teachers' use of reflective teaching practices in the present teacher education programme in Ethiopia. In this chapter, a synopsis of the literature and the synopsis of findings, the conclusions and recommendations of the research study are given.

6.2 SUMMARY OF RESEARCH FINDINGS

This section provides a summary of the research findings including the key scholarly and empirical findings. As part of the summary of key scholarly review findings, it focuses on investigating the development of pre-service teachers' reflective teaching by answering the research questions of the study. On the other hand, the key research findings focus on empirical information about the implementation of the reflective teacher education curriculum framework. Both the quantitative and qualitative data were gathered to identify the major dimensions of reflective teaching for considering a practical strategy for better reflective teaching.

6.2.1 Key scholarly review findings

From Chapter 2, the contextual framework was analyzed. In Chapter 2 section 2.2, training of secondary school pre-service teacher in general and curriculum framework for secondary school teacher education in Ethiopia from MoE (2009) were mentioned for pre-service teacher education programmes. From Chapter 2, section 2.5.1, MoE (2009) outlines the aims, goals, and standards for pre-service teacher education. One of these essential standards is a reflection on professional experiences.

Within Chapter 2, section 2.6, reflective teaching and research in the 21st century was explored, since it emphasizes reflective teaching practices require contextual analyses of the contemporary teacher education programmes. With this research, it is noticeable that reflective teaching exists with the present teacher education programmes, due to its importance on inquiry-based teaching and learning skills.

From Chapter 3, the conceptual and theoretical frameworks were analyzed. Within Chapter 3, section 3.2, the conceptualizations of reflection have been developed. As a result, the term 'reflective teaching' comes from the works of Dewey and Schön (see section 3.2). Furthermore, reflective teaching is viewed as active, persistent and careful consideration of any belief or supposed form of knowledge in the light of the grounds that support it. This implies that practitioners should be thoughtful and

working responsibly in order to teach as effectively as possible. Moreover, reflective practice enables practitioners to examine their actions and find a reasonable connection of acting and doing. Thus, reflection is extremely important component of effective teaching. A teacher should have, thus, to develop the essential attitudes and practices for becoming reflective practitioners.

From Chapter 3 (3.2.3), the processes of reflection were identified and discussed. Additionally, from the processes of reflection section of Chapter 3 (3.2.3.1), this emphasized the reflection as iterative. In this regards, modes for reflection represent the analytical phases where the practitioner deals its incidences for better teaching outcomes. The modes of reflections include reflection-in-action and reflection-on-action. Reflection-in-action refers to the spontaneous thinking and response that occur as the practitioner is doing. This type of reflection is automatic and quick to surprises. This is not a method but and art and a talent. Thus, reflection-in-action allows the practitioner to spot this, consider why it is happening, and respond by doing it differently. This could involve structuring the explanations and approaching the issue from a different view.

On the other hand, reflection-on-action is what occurs outside the classroom occurrences when you consider the situation again. In this case, the practitioner may think more deeply about why the teaching and learning process did not go well, what caused the situation, what alternative strategies could produce to you, why you decided one option and not another. This method depends on how the pre-service teachers are being acquainted with the knowledge and experienced with reflective teaching practices, the understanding of perspectives of such education and the values of reflective practice for personal and professional development.

From Chapter 3, section 3.3.2, Zeichner and Liston (1996) recognized the five unique traditions of reflective practice to develop reflective practice in initial teacher education: *generic*, *academic*, *social efficiency*, *developmental* and *social reconstructionist*. Zeichner and Liston (1996) described that these traditions reflection can be used to modify the practices within the teacher education institutions. However, it is noted that each tradition emphasises the basic supposition about the

aims of education. From Chapter 3, section 3.3.3, models of reflective practice from proponents of reflective teaching were mentioned for pre-service teachers to have a model reflective framework as a starting point when designing a reflective teacher education initiative.

The discoveries inside this investigation are followed back to make a reflective teacher education system for reflective teaching execution while thinking about how the structure complements the reflective teaching and learning results, for example, practice-based learning and reflective teaching skills.

6.2.2 Key empirical findings

Results in this study showed the majority of the pre-service teachers felt inadequately introduced and prepared for reflective teaching while taking the courses that could be beneficial in producing reflective teachers (Table 5.3). With regards to the roles of the cooperating teachers played for the reflective teaching practice, majority of the pre-service teachers noticed that cooperating teachers were very essential for them and believed that cooperating was supportive (Table 5.5).

Regarding, pre-service teachers' experiences with reflective tools, the majority of the pre-service teachers expressed that they are experienced with a few reflective strategies, such as portfolios, teaching practices, and action research projects. Yet, the pre-service teachers noticed gaps between the availability of the reflective teaching tools and the actual utilization of reflective teaching tools (Table 5.7). Then again, the majority of the pre-service teachers felt not acquainted with writing journals and using instructional technologies for reflecting teaching (Table 5.7).

Table 5.8 of this research study revealed pre-service teachers' beliefs on how reflective teaching practices affected their teaching capabilities as well motivate them to teach accordingly. The research results showed mixed feelings on the influence of reflective teaching practice on personal and professional developments. As a result, majority of the pre-service teacher felt that their experiences with the reflective teaching made them capable of using a variety of assessment strategies,

preparing lesson plans, applying problem-solving skills, establishing communications, and employing behavioural managing techniques. On the other hand, most of the pre-service teachers did not feel competent to professionally develop the teaching portfolios, use inquiry learning methods describe and reflect their experiences in journals or diaries make critically justifications for classroom occurrences, and generally believed that their exposures and experiences with the reflective teaching were less effective in promoting their reflective power.

The research results of this study concerning pre-service teachers' attitude towards reflective teaching found to be better. As a result, most of the pre-service teachers recognized reflective teaching as a different teaching method and perceived reflective teaching a relevant professional preparation put into the existing secondary teacher education curriculum to be able to help determine pre-service teachers' teaching effectiveness by take ownership of continuing professional development and provide improvement for quality of schooling and education (Table 5.11).

The findings of this study have also raised a number of issues, which should be dealt with professionally to enhance the development of reflective teachers within the pre-service teacher education programme (Table 5.15). Accordingly, most of the pre-service teachers think that one of the interventions teacher education institution should do to enhance pre-service teachers' reflective teaching development is to adequately introduce and prepare them for reflections in teaching. Moreover, majority of the pre-service teachers suggested building school and teacher education institution partnerships, provision of reflective resources, training of stakeholders, and supervision of reflective teaching practices should be undertaken so as to be able to produce proficient teachers within the existing teacher education programme.

Finally, the research results confirmed that the conditions in which reflective teaching development is implemented were not conducive to build pre-service teachers' self-reliance and skills in schools for reflective teaching and learning. The reflective teaching practice did not provide adequate experiences to the pre-service teachers. As a result, most of the pre-service teachers had feelings of insufficiency, because they felt they should be able to do more on reflective teaching. They wanted to have

a greater impact on their reflective teaching proficiency and wanted to be considered as reflective practitioners by their students. The next section provides conclusions of the study in line with the research questions.

6.3 RESEARCH CONCLUSIONS

The research conclusions of this research study were drawn from the answers of the research questions formulated to guide the study (see section 1.4). This study has provided a detailed assessment and evaluation of reflective teaching practices in the secondary school pre-service teacher education programme in Ethiopia. Though the study recognizes reflective teaching has great potential to result in effective teaching in schools, currently, the pre-service teacher education programme doesn't seem to be enough to adequately prepare pre-service teachers for reflective teaching. Hence, a lot more work needs to be done if reflective teaching is to become comprehensively integrated as part of the teaching preparation in Ethiopia.

In Chapter 1, section 1.4, critical questions were stated. In the next section, the research conclusions are made to answer the research questions. While answering the research questions, the results showed that there was a poor implementation of reflective teaching practices and needed improvements for better reflective teaching experiences of pre-service teachers. The sub-research questions are addressed first and are presented below.

6.3.1 What theories can be used to explain the adoption and implementation of reflective teaching in teacher education programmes?

Reflective teacher education is based on the concepts of reflection and reflective teaching. Within the theory of reflection, theories of reflective teaching scholars and constructivists could be used to explain the adoption and implementation of reflective teacher education programmes. The research study investigated the pre-service teachers' reflective teaching understanding and experiences within the pre-service teacher education programme against these grand theoretical perspectives.

Dewey (1933) acknowledged reflection when one enquires into his or her own experiences and relevant knowledge to discover meaning in his or her own beliefs. Dewey (1933) also viewed reflective practice as intelligent action and called it reflective teaching. As a result, reflection is the act of active, persistent and careful consideration of any belief or supposed forms of knowledge in light of the grounds that support it and the consequence to which it leads (Dewey, 1933). Dewey (1933) added that reflection requires essential behaviours such as open-mindedness, wholeheartedness, and taking responsibility.

Thus, Dewey (1933) proposed that reflection should be an important activity in the quest for effective teaching methods through the reconstruction or the reorganization of experiences and pre-service teachers should be encouraged to develop the process of inquiry and to actively explore the nature of teaching complexities. As a result, Dewey (1933) encouraged the adoption and implementation of reflective teaching for producing reflective practitioners into the schools. However, Dewey (1933) warned that inadequate introduction and preparation for such type of teaching might diminish the potential of reflection for inquiry based teaching experiences.

Schön (1987), another scholar in reflective teaching development linked reflection to action and suggested that the reflective perspective values the teacher's knowledge and considered knowledge in action. He suggested that reflection is a purposeful, systematic inquiry into practice. Schön (1983) described reflection as central to growth and development within all professions and he argued that professional problems are complex and are often difficult to easily provide answers. Schön (1983) concluded the teacher's own knowledge is critical to the problem solving process. He emphasized making informed decisions in terms of reflection-on-action and reflection-in-action. Reflection-in-action referred as undertaking reflection while action is taking place and modifying this action spontaneously. On the other hand, reflection-on-action is taking modified action for the future teaching and learning. According to Schön (1983), reflective teaching involves both reflection-in-action and reflection-on-action.

Van Manen (1977) categorized reflection hierarchically into three levels. The first

level is called the technical level of reflective teaching which is concerned with the efficiency and effectiveness of means to achieve objectives. The next level is the practical reflection which examines the means, as well as the goals, the assumptions and the outcomes of teaching and learning. The third level, critical reflection considers the moral and ethical criteria for effective teaching so that judgments are based on equity, justice and respect for students.

Reflective practice is grounded in a constructivist approach to teaching and learning. Constructivism is theory of learning that points to the individual's active construction of knowledge and meaning, or the mental structures that the individual develops in, or derives from his or her learning condition. As to Vygotsky (1982), the development of cognitive forms occurs by means of a dialectical relationship between the individual and the social context. Constructivism provides a convincing explanatory framework for understanding the way human beings acquire knowledge, and it implies that people create knowledge from the interaction between their existing knowledge, the new ideas, and situations they encounter.

In this tradition, teachers are expected to think critically about the social order and use reflection to address moral and social aspects of teaching along with technical aspects. They are expected to think about the social and political implications of their actions and the contexts in which they work. They are expected to change the world by first changing their own practice (Zeichner & Liston, 1987).

6.3.2 To what extent are secondary school pre-service teachers in teacher education institutions inclined to use reflective teaching practices?

Regarding the utilization of reflective tools in the pre-service teacher education programme, the research results found limited reflective tools employed to promote reflective teaching of the pre-service teachers (Table 5.7). The most readily available reflective teaching practice included portfolios, mentoring, teaching practicum, and action research. On the other hand, the research results indicated the rarely available reflective teaching practice such as observation of teaching, group discussions, and micro teaching. However, reflective journals and reflective teaching

technologies such as audio-video recordings were lacking for pre-service teachers' reflective teaching development.

Thus, pre-service teachers in the teacher education institution in this study might not be good enough to employ different reflective teaching strategies in schools, because the pre-service teachers' engagement with the reflective tools was limited, particularly the use of reflective journals and audio-video recordings for reflective teaching was a concern for them (see Table 5.7). The qualitative data also supported that most pre-service teachers expressed that they preferred the checklists to the written forms of reflection for reflective teaching. This affected pre-service teachers' reflective teaching capabilities.

6.3.3 What perceptions do pre-service teachers have about the current teacher education model in preparing for reflective teaching in Ethiopia?

Regarding pre-service teachers' perception about reflective teaching in the teacher education programme, the current findings (see Table 5.11), revealed that most pre-service teachers seemed to have positive perception about the importance of reflective teaching and reflective teacher education.

Most pre-service teachers perceived:

- Reflective teaching is a noble teaching approach that helps them learn from their experiences;
- Reflective teaching enhances students' classroom participation; and
- Reflective teaching can provide improvement for quality of education.

Moreover, most of the pre-service teachers perceived reflective teaching as an important strategy of ensuring continuous professional development by helping them professionally assess and evaluate their teaching performances regularly. The questionnaire also confirmed that. Thus, we can conclude that most pre-service teachers have positive perceptions of reflective teaching for becoming proficient in teaching. However, the research results showed that reflective teaching and learning in the current pre-service teacher education curriculum framework was not

implemented effectively to improve pre-service teachers' learning to teaching in the schools. This has happened because of pre-service teachers' lack of appropriate knowledge and skills about reflective teaching strategies and their applications in actual teaching and learning process. Generally, pre-service teachers who participated in this research study perceived reflective teaching as a critical way of examining experiences in the instructional process continuously.

Thus, school principals, cooperating teachers, teacher educators, teacher education institutions, and policymakers should evaluate the appropriateness of the reflective training offered to boost pre-service teachers' competency to implement reflective teaching to improve students' learning in schools.

6.3.4 What are the factors that enable or hinder the adoption and implementation of reflective teaching in the current pre-service secondary school teacher education programme?

It was concluded in the study that reflective teaching implementation in pre-service teacher education institutions was affected by the following major challenges.

The first key challenge was lack of adequate orientations and preparation for reflective teaching. Results of the study showed that pre-service teachers in the teacher education institution were found to lack the required level of understanding of reflective teaching. With regards to this, pre-service teachers' felt that reflective teaching and reflection were vague and difficult to comprehend for applications into the teaching and learning process. The results of the study showed that teacher educators in the teacher education institution are mainly focusing to complete the course syllabus and as a result, the pre-service teachers did not get into the essence and nature of reflection and reflective teaching. As a result, pre-service teachers had to move fast with the course coverage and got problems in employing reflective tools in the actual teaching and learning practices.

The second challenge faced the pre-service teachers for better reflective teaching practice was limited reflective activities in the programme. Many of the respondents

indicated that this the greatest of challenges they faced to learning reflective teaching, as teacher educators seemed to be using few reflective teaching methods and activities and hence employ limited teaching skill development strategies. The effect of this was that pre-service teachers tend to incapable to develop teaching portfolios and problem-solving methods when plasticising the reflective teaching curriculum in the partner schools, thus affecting the quality of reflective teaching and learning. In the reflective teaching curriculum, a number of reflective teaching methods were recommended for per each course, but the study results found that teacher-centred approach of reflective teaching methods and lecturing were the major reflective teaching and learning approaches in the teacher education institution. This definitely had a negative effect on how reflective teaching curriculum is implemented in such conditions.

The third challenge the pre-service teachers faced in the course of experiencing reflective teaching was lack of time for adequate to practice reflective teaching. It was recognized from the results of the study that while most of the education and pedagogical courses in the reflective curriculum indicated the reasonable time for reflective teaching development, a number of them did not take adequate instructional time. Results of the study showed that delayed pre-service placements in the teacher education institution hampered practice learning. As a result, the pre-service teachers did not have fair teaching experiences and this had a negative effect on effective reflective teaching implementation.

The fourth major challenge was lack of adequate teaching resources such as audio-video devices and logistical problem such as lack of finance and transport for reflective teaching practices in the teacher education institution affected effective reflective teaching implementation. Many of the respondents in both the questionnaire and interviews indicated that pre-service teachers did not have adequate resources at their institution to effectively implement reflective teaching curriculum. Without important instructional materials and lack of finance and transport for reflective teaching, it becomes very difficult for the pre-service teachers to effectively implement reflective teaching.

The fifth challenge was unsatisfactory supervision of reflective teaching implementation. Results of the study showed that the supervision and assessment of reflective teaching practices lacked effective feedback and communication arrangements. It emerged from the study that pre-service teachers lacked formative feedbacks and comments to their reflective teaching skills from the schools, teacher educators, and cooperating teachers. The issue of supervision of reflective teaching practices are perhaps one of the most major challenge because if reflective teaching practices is not properly coordinated and monitored by actually evaluating the context of the implementation and looking into what is needed to be done for better practice, there is no way to ascertain that reflective teaching was effectively planned, implemented, assessed, and evaluated as per the expectations of the reflective curriculum framework.

Results of the study also showed that the teacher education institution responsible for the supervision of reflective teaching practice tended to employ the guideline, checklists, and formats indicated in the reflective curriculum framework that did not take into consideration of the existing reality of the practice. As a result, the frequency of supervision and assessment methods were unsatisfactory. Moreover, the study found that teacher educators, cooperating teachers, and schools are not collaboratively working for reflective teaching practices. Literature, on the other hand, stated that building school and university partnership and a team of experts were the very essential components of the reflective teaching curriculum and should work collaboratively to provide constructive feedbacks and facilitate discussions for reflective teaching development. Finally, results from both the quantitative and qualitative data gathering tools indicated that the respective teacher educators, cooperating teachers, partner schools, and teacher education institution fail to do so. This affected the implementation of reflective teaching practices in the teacher education institution.

6.3.5 What changes should be made to the pre-service secondary school teacher education in Ethiopia to better prepare reflective teachers?

Based on the results of the research study, it was concluded that there are a number

of effective ways which teacher education institution can do to enhance reflective teaching implementation.

The first change is staff development. Staff development in the teacher education institution included both short and long term staff development initiatives. With regards to the staff development initiatives, teacher education institution encouraged their teaching staff to attend capacity building workshops that are coordinated by their faculties. In these workshops, the staff will identify areas of complexity when implementing the reflective teaching curriculum and will invite experts from the internal or external institutions to facilitate workshops and seminars to address the difficulties. With regards to the long-term staff development initiatives, the teacher education institution should support their staff in pedagogical training certification through an organized staff development programme. This could help teacher educators acquire contemporary knowledge and this leads to effective reflective teaching implementation in the teacher education institution.

The second strategy teacher education institution should do is awareness and sensitization programmes to raise the orientation of reflection and reflective teaching. The use of awareness workshops in the teacher education institution and partner schools will enhance the understanding and implementation of the reflective curriculum framework. This initiative will also help the stakeholder get acquainted with the goals and outcomes and tools for effective reflective teaching implementation. Moreover, this strategy introduces the overview of the curriculum, structure and arrangements of courses within the framework for better reflective teaching implementation.

The third strategy the teacher education should do to ensure effective reflective teaching practices is building partnerships with secondary schools. With regards to building partnerships with the secondary schools, the teacher education and schools should develop a platform to working together in order to use the professional knowledge, expertise and experience of teachers in the training of pre-service teachers for reflective teaching. Moreover, the partnership will assist researchers and practitioners to work on the current trends in the implementation of reflective teaching

practices and be able to inform for better reflective teaching practices in the teacher education institution.

The fourth key strategy used by teacher education institution should do to ensure effective implementation of reflective teaching is introduction and preparation of Instructional Technology. Assuring introduction and preparation of instructional technology in the programme will enhance the implementation of reflective teaching which allows pre-service teachers learn how to use their electronics or digital devices such as their computers or mobile devices for better reflective and learning skills. The introduction and preparation of this instructional technology in the teacher education curriculum will make the teaching and learning as effective as possible in the teacher education institution.

The fifth and final strategy the teacher education institution should do to enhance reflective teaching implementation within the reflective curriculum framework is ensuring supervision of reflective teaching implementations. Supervision of reflective teaching is a crucial activity in teacher education programmes that has the potential to assist pre-service teachers develop reflective teaching and learning skills and acquire the key competencies for teaching effectively. With regards to supervising the reflective teaching practices, the teacher education institution should generate critical information about the implementation i.e. courses, contents, procedures, and techniques employed in the teaching practices so as to determine the efficiency and effectiveness of the teacher education curriculum in making pre-service teachers' capable of reflective teaching and undertake review of the pre-service teacher education curriculum. The above answers prompt the replying of the main research question, expressed in the following.

6.3.6 How can Ethiopian secondary school pre-service teachers' use of reflective teaching practices be improved?

In Chapter 3, a proposed framework for reflective teaching implementation in the pre-service teacher education is presented. The proposed reflective teaching framework is made to be contextualized using reflective teaching intentions and

tasks as stipulated in the pre-service teacher education curriculum guideline in context (MoE, 2009). This structure offers an impending answer to the basic research question for this study. The proposed reflective teaching framework showed the core dimensions and stepwise implementation of reflective teaching development in the pre-service teacher education. It is believed that the implementation of the reflective teaching practice in the current pre-service teacher education in Ethiopia could be enhanced with the adoption and application of the proposed framework in the teaching and learning process. The proposed system provides a six-step technique for executing reflective teaching practices in the pre-service teacher education programmes.

The current status of reflective teaching implementation in the TEI was shown in chapter 5. The results of the themes that were used to assess the implementation of the reflective teaching in the pre-service teacher education help to portray and explicate the current condition of reflective teaching curriculum implementation in the TEI (see 5.3.2). Accordingly, an instructional framework was proposed for effective implementation of reflective teaching in the pre-service teacher education curriculum (see 3.4.4). This instructional framework offers a potential solution to the basic research question for this study. The proposed framework provides an iterative method for implementing reflective teaching in the pre-service teacher education programme. Each of the iterative steps is disclosed in the following themes as far as how a careful implementation of every step can enhance the implementation of reflective teaching within the pre-service teacher education context. In section 5.3.2, the constituents of the proposed reflective teaching framework as well as their linkage to existing findings are discussed below.

Step One: Orientation and theory demonstration on reflective teaching

An adoption of the proposed reflective teaching practices would result in creating awareness of reflective teaching and learning in the teacher education institution. As a result of adequate orientation and preparation for reflective teaching, the pre-service teachers would be able to develop an understanding about reflective teaching (see 5.3.2.6 & 5.3.2.7). In addition, the pre-service teachers will be able to create the awareness and consider the skills for effective reflective teaching. As

initial phase, an orientation programme is recommended employing a range of strategies such as training sessions, workshops, case methods, lectures, seminars, demonstrations, and presentations.

Step Two: Practice teaching

As a regular feature of all teacher education courses, the pre-service teachers need to practice teaching both in the schools and teacher education institutions. Effective reflective teaching practice makes pre-service teachers to effectively engage in the reflective practice through a well integration of theory and practice and sound organization of practical activities which include peer teaching, micro-teaching and practice in schools (see 5.3.2.3). The proposed reflective teaching practice framework identified the key stakeholders and evaluation strategies to be utilized for reflective teaching practices.

Step Three: Pre- service teacher's reflection

In order to improve the quality of pre-service teachers' reflection, the pre-service teachers should be given reasonable time for reflections (5.3.2.7). The pre-service teachers need to reflect their teaching experiences and should have a command of critical ideas and skills, the capacity to reflect on, and learn from their teaching practices. The proposed reflective teaching framework views that continuous reflection facilitate pre-service teacher' reflective teaching practices. In this step, the pre-service teachers' reflections should be performed against the major themes for reflective teaching. Accordingly, the aspects of reflection could include issues related to reflecting school settings, classroom teaching, and problem solving requirements. To achieve this, pre-service teachers should work out their reflective teaching reflections utilizing analytically developed evaluation tools, such as observation checklists, practicum guidelines, reflective journals and pre-service teachers' diaries.

Step Four: Collaborative inquiry

In this phase, it is believed that after the pre-service teachers' reflections, the key stakeholders for reflective teaching will discuss with pre-service teachers about the strengths, weaknesses, and incidences identified during the reflective teaching

practices so that the pre-service teachers receive feedbacks for better reflective learning and teaching practices (see 5.3.2.7). Collaborative inquiry ends with the reflective teaching cycle. In this cyclical approach, the pre-service teachers will be able to examine their practices systematically and continuously by considering the feedbacks obtained from the stakeholders.

Step Five: Preparation of an action plan

The final component for better reflective teaching practices within a pre-service teacher education programme is planning for implementation. An adoption of the reflective teaching practices framework would result in the development of the potential actions for the next phase of reflective teaching practice by the pre-service teachers. In this phase, the pre-service teachers should determine what they planned to perform and how they have implemented in order to identify actions for future teaching and learning based on the reflective teaching and learning cycle (see 5.3.2.6 & 5.3.2.7).

In sum, I thus proposed the reflective teaching practice framework for effective reflective teaching in the pre-service teacher education in Ethiopia, in recognition of the needs of reflective teaching curriculum in many teacher education institutions stayed the critical. Teacher institutions do have contexts and they know well what should be done to fit their contexts for better pre-service teachers' reflective development, yet this research study has set the most important requirements for such practice in Ethiopian Teacher Education Programme. The first requirement is the acceptance of the need to have a fully developed reflective teaching practice in teacher education institutions. This is the essence of this research and it was one of the major aims in carrying out this research to show the need for effective reflective teaching practices and how it could improve the quality of teacher education in teacher education institutions in Ethiopia.

The second requirement to adopt this framework could take the form of accepting the guiding principles, the core features and elements suggested in the current teacher education curriculum that could be utilized through this reflective teaching practice outline. The final requirement to employ this proposed framework is that effective

reflective teaching development in pre-service teacher education can be seen in its whole or with minor revisions to fit the specific contexts prevailing in a particular teacher institution.

6.4 RECOMMENDATIONS

On the bases of the research findings and conclusions, the researcher would like to make a number of recommendations in order to improve the way the pre-service teacher education reflective curriculum is implemented in Teacher Education Institutions. The recommendations are believed to address the weaknesses related to the implementations of reflective teaching practices in the secondary school pre-service teacher education programme in other TE institutions. Recommendations are made to two levels, namely governance level and institutional level.

6.4.1 Governance level

Recommendation 1

Federal Ministry of Education should revise the reflective teacher education curriculum framework for effective reflective teaching practices in so that courses and contents in the existing curriculum framework are truly integrated for reflective exercises. Guidelines and formats are up-to-date. For example, there are a number of duplications of contents in the courses included in the curriculum. Moreover, there are courses with less emphasis on reflective teaching practices. Furthermore, the study found that the school teaching practicum guideline and checklists needed revisions.

Recommendation 2

The Ministry of Education should ensure effective communications and supervisions of the implementations of the reflective teacher education curriculum in the teacher education institutions. The study found that one of the problems with the implementations of reflective teaching practices in the pre-service teacher education was delays of pre-service teachers' placement in the institutions. Hence, this could be addressed by establishing close communications and ongoing supervisions of the

Institutions as to how to manage the time constraints for the reflective teaching practices.

Recommendation 3

Ministry of Education should revise the teacher educators' development programme. The study found that teacher educators' support for the pre-service teachers for reflective teaching preparation was not satisfactory. This could be due to lack of awareness and preparation for reflective teacher education curriculum by the teacher educators. Thus, continuous professional development programme for the teacher educator should be developed.

Recommendation 4

Ministry of Education in its quality improvement projects should allocate finances into these resources if the pre-service teacher education curriculum is to be effectively implemented. Reflective teaching curriculum framework required fair pedagogical and educational resources for its effective implementation. But the study found the pre-service teachers lacked resources and facilities that include audio and video recorders, adequate textbooks and modules.

6.4.2 Institutional level

Recommendation 5

The university should assess and evaluate the quality of the teacher education institution implementation of the reflective teaching programme and make recommendations to the institute for the improvement of the reflective teaching practices. It is believed that building a monitoring system for the programme promotes research-based curriculum implementation and is able to create an information system that gives policy makers and implementers the information they need to make timely decisions and corrections that will keep the curriculum progress.

Recommendation 6

The Teacher education institution should take awareness campaigns about the pre-service teacher education programme so as to raise the level of understanding and

awareness of the stakeholders as this improve the effective implementation of the reflective teaching practices. The study found that the stakeholders lacked awareness about the programme and lacked adequate orientations and preparations for reflective teaching practices. It is believed that reflective orientation provides insights for the pre-service teachers about the broad and practical considerations of teaching.

Recommendation 7

It is proposed that teacher education institution should improve its institutional partnerships with secondary schools. Ensuring partnerships with the secondary schools and teacher education institution is critical for successful implementation of reflective teaching practices in teacher education programmes. The study found that by establishing the school and institution partnership, effective mentoring practices could be prevailed in schools through capacity building programmes for the school teachers, principals, and supervisors.

Recommendation 8

The teacher education institution should ensure continuous quality English language training programme for the pre-service teachers. One of the hindrances for effective reflective teaching practices in the pre-service teacher education programme was the lack of English language by the pre-service teachers. This could be done with the Department of English and English Language Improvement Centre in the University. The pre-service teachers should develop their writing skills. The study also found that for successful reflective teaching implementations, pre-service teachers' writing skills should be emphasised. And, the English language training should employ a development of teaching diary where the pre-service teachers can write critical incidences in the course of the programme.

Recommendation 9

The teacher education institution should improve the time allocation for the reflective teaching practices of the pre-service teachers in the pre-service teacher education. Literature sates that one of the critical factors when developing reflective teaching practices is time. This study found that pre-service teachers felt that the time constraint was one of the barriers for successful reflective teaching practices. This

should be improved by allocating adequate reflective teaching periods for each course and allocate time for the pre-service teachers to experience the reflective teaching within each teaching and learning events.

Recommendation 10

The teacher education institution should improve pre-service teachers' commitment for reflective teaching engagements. Commitment of pre-service teachers determines the effectiveness of the implementation of the reflective teaching practices. This study found that the pre-service teachers' commitment and motivation for reflective teaching is less. It is also found that pre-service teachers are not committed to pedagogical courses as they are in the applied degree subjects. The commitment of pre-service teachers for reflective teaching can be enhanced by ensuring. The integration of theory and practice can be ensured by employing micro and peer teachings. Literature reviews confirmed that frequent exposure and experiences with these methods of teaching promote reflective teaching capabilities and their by improve pre-service teachers' commitment for reflective practices.

Recommendation 11

Teacher educators should implement effective reflective teaching practices supervision of the pre-service teachers. The research discovered that teacher educators are not effectively supervising pre-service teachers' reflective engagements. This could be done by establishing friendly supervision practices and providing adequate feedbacks for the pre-service teachers to professionally document their reflective teaching development, as better reflective teaching development required reflection cycle of planning.

Recommendation 12

Pre-service teachers' skills of doing practical research should be improved as practical research are one of the most important reflective practices where the pre-service teachers' develop problem solving skills. Literature reviews state that pre-service teachers can carry out their reflective teaching projects by observing and reflecting in action by being spontaneous. This type of practical research is referred to be theory of practice. Moreover, the pre-service can perform their practical

reflecting teaching projects by accessing the previous practical researches of other pre-service teachers for better understandings of the methods and procedures of doing effective reflective teaching projects.

The next section provides avenues for future research.

6.5 AVENUES FOR FURTHER RESEARCH

This study investigated and proposed an adapted framework for better reflective teaching practices in pre-service teacher education institution in Ethiopia. It would be interesting to find out if another study that included varied teacher education institutions (both experienced and newly established higher education institutions) would come out with the same or similar framework. Another avenue for further study which could be explored could be a similar study with a comparative analysis of reflective teaching implementations in Ethiopian teacher education institutions participating in training secondary school teachers in similar situations to find out if they face similar barriers for pre-service teachers' reflective engagement and if this working framework could be used to mitigate the challenges and enhance the implementation of reflective curriculum framework in the Ethiopian teacher education institutions.

6.6 LIMITATIONS OF THE STUDY

There are a number of limitations that may have had some impact on the quality of results of this study with special reference to how the reflective teaching curriculum framework is implemented in teacher education institutions.

The first limitation is that this study can be described as a typical teacher education institution's investigation, because the views of the teacher educators of similar teacher education institutions have not been sought, nor have the views of the pre-service teachers in the other similar institutions been attended.

The second limitation of the study is its coverage. This limited the study to the nearby area in the two zones only. If secondary schools from other areas had been included

in the study different views may have been observed and possibly valuable insights pertaining to the reflective teaching practices would have been established.

The third limitation of this study is its focus. This study mainly concentrated on one of the aspects of reflection, namely the assessment of reflective teaching practices, in light of participants' views and opinions. With more time and resources, it would have been possible to have probed more to find out how the participants valued and performed reflection using additional data collection tools.

6.7 CONCLUDING REMARKS

This study investigated pre-service teachers' reflective teaching practices, discovered the facilitators and barriers of reflective teaching practices, and proposed how the barriers can be managed for better reflective teaching practices in the pre- service secondary school teacher education institutions Ethiopia.

Conducting this study for me was a great experience as it was an inspiring one, because examining reflective teaching requires personally examinations of insights from diverse perspectives. As a result, I am so much enlightened and empowered to investigate any educational issues through critical discourses. I know it was so challenging for me to investigate this newly emerging practice in education, but through this scholarly exercise I have managed it. Perseverance is another quality I also learnt to be very important and critical for the success of any activity and I exercised it during the whole course of the study.

This study provided me the opportunity for continuous learning and development. Reflective exercise as I have learnt from this investigation truly defines the profession and raises the quality of education. A framework that addresses the very important aspects of reflection is a prerequisite for effective teacher education programme. Finally, I believe that the implementation of relevant reflective practices can not only deepen teachers' understanding of education, but also guide them in achieving the vision set forth in the goals and outcomes of the teacher education curriculum.

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APPENDIX A: QUESTIONNAIRE

QUESTIONNAIRE FOR PRE-SERVICE TEACHERS

Dear respondent,

This questionnaire forms part of my Doctoral research study entitled: "Investigating and Improving Reflective Teaching in Ethiopian Secondary School Teacher Education" for DEd in Curriculum and Instructional Studies at the University of South Africa. You have been selected by a random sampling strategy from the cohort of pre-service teacher education students in the Institute. Hence, I invite you to take part in this study.

The aim of this study is to investigate the existing reflective teaching practices at the Ethiopian Teacher Education Institutions and propose effective reflective instructional practices. This questionnaire is designed to collect information about your experiences with reflecting teaching in the Teacher Education Institution (TEI). You are kindly requested to complete this questionnaire, comprising of two parts as honestly and frankly as possible according to your personal views and experiences.

The first part includes the biographic characteristics of the respondent. And the second part of the questionnaire includes the main body of the questionnaire that shows a list of items for the respondents to tick how they agree to them or practice each item. All information obtained from this questionnaire will be used for research purposes only and will remain confidential. Your participation in this study is voluntary and you have the right to omit any question if so desired, or to withdraw from answering this study without penalty at any stage.

Permission to undertake this study has been granted by the Institute of Education and Behavioural Sciences of Dilla University and the Ethics Committee of the College of Education, UNISA. If you have any research related enquiries, they can be addressed directly to me or my supervisor. My contact details are: 50789856@mylife.unisa.ac.za and my supervisor can be reached at University of South Africa, Department of Curriculum and Instructional Studies, College of

Education, UNISA, e-mail: dplesec@unisa.ac.za. By completing the questionnaire, you imply that you have agreed to participate in this research.

Thank you for your time!

The Researcher

Part I: GENERAL

Please put tick in the box to indicate your response

Gender Female Male

Field of study/subject/Department _____

Part II: PRE-SERVICE TEACHERS' REFLECTIVE TEACHING EXPERIENCES

The following statements are concerned with your reflective teaching experiences in secondary school teacher education programme. Please indicate the degree to which you agree or disagree with each statement below by ticking the appropriate response to the right of each statement.

KEY

SD= Strongly Disagree **D=** Disagree **U=** Uncertain **A=** Agree **SA =** Strongly Agree

SECTION 1: LEVELS OF REFLECTIVE TEACHING INTRODUCTION

This section of the investigation asks on your teacher educators' role in introducing the reflective teaching.

	SD	D	U	A	SA
During my preparation for teaching in secondary schools my teachers:					
1. Emphasized the roles of reflective practices for my profession.					
2. Underlined the roles of reflective tools for reflective teaching practices.					
3. Developed the strategies for reflective teaching in secondary schools.					
4. Taught me the reflective practice skills needed.					

5. Explained the purposes of reflective tools for better teaching.					
6. Emphasized the roles of reflective tool as a compulsory requirement activity.					
7. Prepared me for teaching reflective for teaching reflective in secondary schools.					
8. Assisted me to reflect on improving my secondary school teaching practices					
9. Instilled positive attitudes in me towards reflective teaching.					
10. Adequately introduced me the roles of reflective teaching for my profession.					

SECTION 2: LEVELS OF REFLECTIVE TEACHING SUPPORT

This section of the investigation asks for comment on your cooperating teacher's support during the teaching practicum.

During my teaching practicum, my cooperating teacher:	SD	D	U	A	SA
1. Emphasized the importance of reflecting on my experiences.					
2. Discussed the role of reflective tools in helping me teach effectively.					
3. Assisted me to reflect on improving my teaching practices.					
4. Guided me with secondary school lesson preparation for reflective teaching practice.					
5. Discussed with me the school's policies for teaching and learning process.					
6. Adequately observed my teaching lessons.					
7. Assisted me perform my institute teaching tasks and assignments.					
8. Provided constructive feedbacks on my teaching practices.					
9. Discussed the evaluation requirements of my reflective teaching practices.					
10. Was supportive for my teaching practicum in the secondary school.					

SECTION 3: TYPES OF REFLECTIVE TOOLS

This section of the investigation asks for comment on your experiences with reflective tools.

Reflective Tools	Answer	
	Yes	No
Reflective Journal		
Portfolios		
Micro teaching		
Mentoring		
Group Discussion		
Teaching Practicum		
Class observation		
Video taping		
Action research		
Checklists		
Modules/handouts/lecture notes		
Others(Please specify)		

SECTION 4: LEVELS OF REFLECTIVE TEACHING EFFICACY

This section of the investigation asks for comment on your experience with the reflective teaching practices as indications of your reflective teaching efficacy.

Statement	SD	D	U	A	SA
1. My experiences with the reflective practice trained me to keep personal professional portfolio in which I collected proofs of my learning as a teacher.					
2. I believe the reflective teaching practice improved my inquiry teaching and learning.					
3. I found writing reflections on my experiences easy.					

4. I think the reflective teaching practice prepared me use a variety of assessment strategies for my lessons.					
5. My experience with reflective teaching practice made me find reasons for positive and negative classroom occurrences.					
6. I believe the teaching practice skilled me to adjust my lessons to the proper level for my students.					
7. I have developed a problem solving skills through my reflective teaching practices.					
8. My behavioural management skills are well developed by the reflective teaching practices					
9. My experience with reflective practices developed my communication skills.					
10. I can apply classroom management skills in secondary schools because of the reflective teaching practices.					
11. Keeping a journal description of incidents in my classroom for further actions is easy.					
12. My teaching experiences have developed my skill of keeping a diary to follow my professional development and see my shortcomings.					
13. I know the importance of informed classrooms due to my reflective teaching experiences.					
14. My experiences with the reflective tools have been positive.					

SECTION 5: LEVELS OF REFLECTIVE TEACHING PERCEPTIONS

This section of the investigation asks for comment on your perceptions of reflective teaching

Statement	SD	D	U	A	SA
1. Reflective teaching is a noble teaching method.					
2. Reflection makes teaching complex.					
3. I prefer reflective teaching to other types of teaching.					
4. Reflective tool will have an impact on my teaching prospects.					
5. Reflective teaching enhances class participation.					
6. Reflective tools make teaching significant.					
7. Reflective teaching helps pre-service teachers learn from their experiences.					

8. Reflective teaching makes teaching and learning easier.					
9. Reflective Teaching enhances classroom interactions.					
10. Reflective teaching makes the classroom management difficult.					
11. Reflective Teaching helps students take responsibility for learning.					
12. Reflective teaching is an irrelevant thing put into the curriculum.					
13. Reflective teaching can improve my attitude towards teaching profession.					
14. Reflective teaching determines the effectiveness of teachers.					
15. Reflective teachers take ownership of personal continuing professional development.					
16. Reflective teaching can be an improvement in the quality of education.					

SECTION 6: FACTORS INFLUENCING REFLECTIVE TEACHING

IMPLEMENTATION

This section of the investigation asks for comment on the factors that influenced the development and implementation of reflective teaching.

	SD	D	U	A	SA
From your point of view what hinders the implementation of reflective teaching practices in your institution?					
1. Insufficient knowledge gained from professional courses.					
2. Poor preparations for reflections.					
3. Inadequate school based teaching practices.					
4. Lack of resources(templates, formats, guidelines, textbooks, checklists)					
5. Lack of time for reflective teaching practices.					
6. Limited reflective teaching and learning activities of the programme.					
7. Inadequate professional support by university supervisors.					
8. Weak schools and university linkage.					

9. Lack of knowledge by cooperative teachers for reflective teaching practices.					
10. Lack of awareness about the purpose of reflective teaching.					
Others (please specify)					

SECTION 7: SUGGESTIONS FOR BETTER REFLECTIVE TEACHING

This section of the investigation asks for comment on the practical solutions to the factors that influenced the development and implementation of reflective teaching.

Statement	SD	D	U	A	SA
1. Enhanced preparation for reflective teaching practice.					
2. Improving understanding about reflective teaching among the stakeholders.					
3. Providing reflection resources.					
4. Training for cooperative teachers about reflective teaching practice.					
5. Establishing school-institute partnerships.					
6. Providing orientations for the reflective teaching in schools					
7. Providing sufficient time for reflective teaching practices.					
8. Improving the support system for reflective teaching practice.					
9 Improving University teachers' guidance for reflective teaching.					
10 Making reflection an integral part of the programme.					
Others (please specify)					

APPENDIX B: INTERVIEW SCHEDULE

SEMI-STRUCTURED INTERVIEW SCHEDULE FOR TEACHER EDUCATORS

BY

BERHANU MEKONNEN YIMER DEd STUDENT (UNIVERSITY OF SOUTH AFRICA)

The interview guide is part of the DEd study that seeks to investigate and improve reflective teaching implementation in typical teacher education institution (TEI) in Ethiopia.

Dear participant,

The aim of this interview is to gather information related to your experience and viewpoint related to reflective teaching implementing in the pre-service teacher education programme. Particularly, this semi-structured interview is concerned with your outlook regarding effective reflective teaching development and implementation for pre-service teachers. You are expected to provide your sincere views, experiences and opinions on the issue in order to meet the purpose of the study. The collected data provided within this research will be used to conduct the empirical study.

Your responses will be treated confidentially and your anonymity will be protected.

The 45-60 minutes scheduled semi-structured interview will be recorded. As a voluntary participant within this study, you have the right, if desired, to listen to the recorded interview to ensure that all statements were correctly presented. Understand that as a voluntary participant you have the right to withdraw from this study without penalty, or to withdraw from a question if desired. Thank you for your willingness to participate in this study and for your contributions to better reflective teaching practice for pre-service teachers.

SECTION A: THE NOTION OF REFLECTIVE TEACHING CURRICULUM

Is reflection a noble idea put into the current teacher education programme in Ethiopia? How? Why?

What do you think are the reasons why there has been reflective teaching practice as part of the pre-service teacher education programme in Ethiopia?

What do you consider to be the most important aims of the reflective teaching?

SECTION B: NATURE OF THE REFLECTIVE TEACHING CURRICULUM

As a teacher educator in the institute of education, what are your comments on the courses, tools, methods, and procedures to reflective teaching in the existing teacher education curriculum?

Has the reflective teaching initiative led to improve the quality of pre-service teachers in your institution? If yes, how? If no, why?

How adequate is the training programme in equipping pre-service teachers with knowledge and skills in handling reflective teaching practices?

SECTION C: PREPAREDNESS AND CHARACTERISTICS OF THE PRE-SERVICE TEACHER

To what extent are secondary school pre-service teachers in teacher education institutions inclined to use reflective teaching? Be specific in terms of these:

What influences have you observed from the pre-service teacher education in terms of the reflective teaching capabilities?

What do you see as the most important knowledge and skills of reflective teaching which pre-service teachers need to be aware of?

How well do you think the pre-service teachers engaged in the process of reflecting their own practice? How can we best teach pre-service teachers to reflective teaching?

SECTION D: TEACHER EDUCATORS' SUPPORT

Please describe your reflective teaching strategies in terms of the following questions: Would you please describe your teaching experiences in terms of using the reflective tools/methods?

What is your comment on the support and guidance of the pre-service teachers' reflective teaching practices?

How do you facilitate a successful reflective teaching practice for your pre-service teachers?

SECTION E: FACTORS AFFECTING REFLECTIVE TEACHING

Identify and explain the major constraints within the current pre-service teacher education programme (in terms of the national, institutional, and personal levels) that affect to reflective teaching implementation.

SECTION F: STRATEGIES FOR BETTER REFLECTIVE TEACHING

What reforms are currently needed to produce reflective teachers for secondary schools in Ethiopia?

What elements do you specifically recommend should be an essential part of a successful reflective teaching programme?

What still needs to be researched in pre-service teacher education programme in

Ethiopia for successful reflective teaching experiences?

Thank you!

APPENDIX C: FOCUS GROUP INTERVIEW QUESTIONS FOR COOPERATING TEACHERS

1. How do you understand reflective teaching?
2. How would you describe the teaching practice of the current secondary school teacher education programme in Ethiopia?
3. Do you think enough support has been given to the pre-service teachers for reflective teaching practices?
4. What kind of assistance would you wish to obtain in order to improve your mentoring skill?
5. What features of teacher education do you think need deliberation to prepare pre-service teachers to the needs of reflective teaching and learning?
6. What particular problems do pre-service teachers face in learning and applying reflective teaching?
7. How can the Teacher Education improve pre-service reflective teaching practicum? Please give some suggestions.
8. What reforms are currently needed in the secondary pre-service teacher education programme to ensure the country realize the goal of providing quality secondary school teachers for secondary school learners?

APPENDIX D: FOCUS GROUP INTERVIEW QUESTIONS FOR PRE- SERVICE TEACHERS

1. What is your understanding of reflective teaching?
2. How would you describe the implementation of reflective teaching in the current teacher education programme? Please comment on the following points by examining your teaching and learning experience:
 - The introductions and preparation sessions for reflective teaching practices;
 - Teacher educators and cooperating teachers' roles in reflective teaching practice;
 - The support and feedback offered for reflective teaching; and
 - The methods employed and barriers encountered.
3. Which particular problems do pre-service learners face in learning and applying reflective teaching?
4. How can the teacher education institution improve the practice of reflective teaching in the current teacher education programme? Please give some practical recommendations.
5. What reforms are currently needed in the pre-service secondary school teacher education to in general to ensure reflective teachers for secondary schools in Ethiopia?

APPENDIX E: ETHICAL CLEARANCE



COLLEGE OF EDUCATION RESEARCH ETHICS REVIEW COMMITTEE

17 February 2016

Ref : 2016/02/17/50789856/19/MC

Student : Mr BM Yimer

Student Number : 50789856

Dear Mr Yimer

Decision: Ethics Approval

Researcher

Mr BM Yimer
Tel: +25 191 617 7900
Email: 50789856@mylife.unisa.ac.za

Supervisor

Prof E du Plessis
College of Education
Department of Curriculum and Instructional Studies
Tel: 0828093903
Email: dplesec@unisa.ac.za

Proposal: Investigating and improving reflective teaching in Ethiopian secondary school teacher education

Qualification: D Ed in Curriculum and Instructional Studies

Thank you for the application for research ethics clearance by the College of Education Research Ethics Review Committee for the above mentioned research. Final approval is granted for the duration of the research.

The application was reviewed in compliance with the Unisa Policy on Research Ethics by the College of Education Research Ethics Review Committee on 17 February 2016.

The proposed research may now commence with the proviso that:

- 1) The researcher/s will ensure that the research project adheres to the values and principles expressed in the UNISA Policy on Research Ethics.*
- 2) Any adverse circumstance arising in the undertaking of the research project that is relevant to the ethicality of the study, as well as changes in the methodology, should be communicated in writing to the College of Education Ethics Review Committee.*

An amended application could be requested if there are substantial changes from the



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**APPENDIX F: AN EXAMPLE OF A TRANSCRIPT OF AN INDIVIDUAL
INTERVIEW: TE3**

Yimer: Good afternoon. Nice to talk to you. Thank you very much for agreeing to provide your views for my research endeavour. I have been working on this study for a few years now. The study planned to interview teacher educators about the current pre-service teacher education programme. I have had you in mind to interview, so it is tremendous that you agreed to do that because I already have all sorts of pages already written toward it, so thank you again.

Really appreciate it.

Yimer: I am just wanted to go through the question I organized for it. You can feel free to go, but feel free to go withdraw if you want to. Tell me a little bit about your background information about your teaching experience.

TE3: I stated teaching nine years ago. I got my master's in instruction and worked nine years at the institute of education where I am now. I have been teaching pre-service teachers since 2012.

Yimer: Fine. Thank you so much. In your opinion, is reflection a noble idea put into the current pre-service teacher education programme in Ethiopia? How? Why?

TE3: Ok. Yes, reflection is a decent idea in the recent pre-service teacher education curriculum in Ethiopia. You see, there is a course entitled 'teachers' as reflective teacher education' in which pre-service teachers are expected to understand the essence of reflection and identify possible instructional techniques to learn and practice teaching. So, I see it why reflection is a very good concept put into the PGDT teacher education programme.

Yimer: Amazing. Ok. If that is the case, what do you think are the reasons for reflective teaching practice as part of the pre-service teacher education programme in Ethiopia? As to me and the current teacher education curriculum, there are a quite number of reasons to incorporate reflective teaching practices. One of the justifications for reflective teaching practice in the current pre-service teacher education programme in Ethiopia is to improve the teaching and learning process by equipping training teachers' the skills for continuous improvement.

Yimer: Ok. Let me ask you one question related to this issue and please provide me your opinions in this regard as usual. TEI 3: It is my pleasure. The question is what do you consider to be the most important aims of the reflective teaching?

TE3: Fine. I might have said my points about this in the previous questions. To be specific, the proper utilization of reflection is what is missed in the teaching profession in Ethiopia. On the other hand, the government is aspiring to provide quality education for the citizens and I believe this initiative can be a good input to the general education quality enhancement programme.

Yimer: As a teacher educator in the institute of education, what are your comments on the courses, tools, methods, and procedures to reflective teaching in the existing teacher education curriculum?

TE 3: I do believe that the curriculum framework is well prepped. It almost touched the fundamental components of reflective teacher education, but the problem is in its implementation. I think there is a big gap between the curriculum implementation framework and the actual practice. For example, reflective tools play very important roles for reflective teachers' development. They show the teacher his/her actual performances. In this case, the teacher education framework stated that pre-service teachers should be engaged in critical teaching. They should have opportunity to reflective tools. In my institution, the pre-service teachers are supposed to develop practicum portfolios and action research projects from their reflective teaching practices, but I am observing the pre-service teachers are not doing well with these tools. The practicum portfolios are lacked critical assessment of the teaching experiences. In addition, the action research reports did not fulfill the characteristics of teacher research. So, I see unsuccessful utilizations of reflective tools within the current pre-service teacher education.

Yimer: Thank you. OK. I think we can guess from this interview that pre-service teachers are not adequately exposed to reflective strategies. What influences most reflective teaching implementation in the existing pre-service teacher education?

TE 3: I think there are a number of factors influencing the pre-service teachers' reflective teaching training. One of them and the prime factor is the pre-service teachers' English language capabilities what matter most for reflective teaching practice.

Yimer: Ok, last question. What do you think should be done to enhance pre-service teachers' reflective teaching skills?

TE3: That is a very good question. As to me the key to effective reflective teaching implementation as indicated in the curriculum framework can be achieved by a sound acquaintance and preparation of the pre-service teachers with the reflection. I believe if this is well done in the pre-service teacher education programme, the pre-service teachers will perceive reflection and reflective teaching as unique methods of trying theories and acquire knowledge for teaching. I am suggesting this because I couldn't find any responses from pre-service teachers stating reflection as a means of self-examination in terms of seeing one's weakness and strengths for better teaching and learning process.

Yimer: Great answer Thank you. Thank you very much. I am grateful for your support. I appreciate all the information you provided for the best of my research. Thank you again for agreeing. It was nice to interview you.

TE 3: It was nice to talk with you too.

Yimer: Goodbye

TE 3: Goodbye

APPENDIX G: AN EXAMPLE OF A TRANSCRIPT OF A FOCUS GROUP INTERVIEW

Yimer: Thank you dear students for being willing to take part in this study. I am doing my doctoral study on reflective teaching practice implementations and related challenges in the pre-service teacher education programme. The study planned to gather information from the pre-service teachers about the practice and problems related to the reflective teaching. So thank you again.

Pre-service teachers: It is our pleasure.

Yimer: My first question to you is what is your understanding of reflective teaching?

Pre-service teachers: Ok. It is teaching methodologies that influence the out teaching approaches in n a positive way to becoming problem solvers.

Pre-service teacher: Reflective teaching practices in schools increases, the pre-service teachers' teaching skills, because reflective teaching requires practically engagements and keep on thinking; as a result, the pre-service teachers will get better.

Pre-service teacher: Reflective teaching practices provide opportunities for pre-service teachers' constructive feedbacks from senior school teachers and university instructors so as to help teacher know the basics of teaching in practice.

Yimer: Any additional responses please.

Pre-service teacher: Ok. I think reflective teaching makes teaching better and enhances learning. Due to the reflective teaching practices, the theories we have leant could be taught. In our reflective course, we have dealt that reflective teaching involves teacher research, thus by practicing this type of teaching in classrooms we can improve the teaching and learning process by doing an action research.

Yimer: Great answers. You have identified the very important essences of reflective teaching. My second question is how would you describe the implementation of reflective teaching in the current teacher education programme?

Pre-service teachers: Ok. One of the pre-service teachers said that the main emphases of the lectures in their classes were more of theoretical. He felt that the lectures did not adequately show him the roles of reflective teaching for his teaching training. Also he commented that the lectures were very done with limited clarifications for better reflection. Consequently, understanding reflection was very

difficult. I assume a lot of students struggle to apply reflection in their teaching practices, as learnt in theory. Since, we were mainly engaged in doing group assignments which did not require practical involvements. To be frank we need additional workshops to understand the fundamental nature of reflection and be able to apply effectively the reflective teaching in the secondary schools.

Yimer: Fine. You can add some comments on the reflective teaching implementation.

Pre-service teachers: Ok. My comment is on the roles played by the school's teachers assigned by the schools to assist our practicum. I truly liked how the mentors helped me teach in schools. They were very helpful. They were friendly while providing their feedbacks of my teaching performance, encouraging, sharing their teaching experiences, and demonstrating me how to teach. I couldn't prepare a lesson plan without the school teachers for my teaching practice. The mentors were not only helpful for my lesson planning skills but also for my action research.

Pre-service teacher: I agree with the previous speaker about the undeserved assistance we got from the cooperating teachers during the teaching practicum. However, the checklists and formats given for the reflective teaching practice as a tool for reflection were not friendly for both the mentors and the pre-service teachers. The templates were full of tables and figures to gather data and reflect in blank spaces. Developing a practicum portfolio was a challenge for us.

Yimer: Very detail comment. Any additional comments are welcome.

Pre-service teacher: Ok. The practicum was assumed to help us develop reflective skills. But due to time and lack of awareness for reflective teaching, we couldn't benefit much out of the reflective teaching practices.

Yimer: Ok. Now let me ask you one question related to the problems you faced in the teacher training programme you're enrolled in. The question is which particular problems do pre-service learners face in learning and applying reflective teaching? Pre-service teachers: Ok please. In the PGDT programme the main challenge for reflective teaching practice is lack of time for practice. In our case, due to this the instructors rush to cover the units. Most of our teachers prefer presentations and lecturing to convey their contents. For this purpose, they use LCD projectors to speed up their presentations. This influenced our chances of exercising teaching. Yimer: What else can you say on this please?

Pre-service teachers: Ok. Actually it is time what impacted most for teaching training.

But there is additional teaching lacking in the teaching and learning process. For instance, the use of reflective tasks has been overlooked in the teaching and learning process. There is no adequate use of tasks in the teaching and learning for us to practice teaching. During the lectures, practical cases were not presented and this impacted our problem solving abilities. But the courses state that reflective tasks are very useful for pre-service teachers to experience teaching.

Yimer: Thanks! My fourth question to you is how can the teacher education institution improve the practice of reflective teaching in the current teacher education programme? Please give some practical recommendations.

Pre-service teacher: Let me say this please. I think in order to improve reflective teaching practices in the PGDT programme, we students should be made to use of various reflective teaching practices and the institute should consistently employ the teaching methods across the departments. In theory we know the importance of peer teaching, but practically there is no such thing in it. This should be improved. We must learn each other. In schools also there must be a practice involving friends to observe and assess us. According to the guideline, peer evaluation is identified as one of the methods for evaluating our teaching practice abilities; therefore, the teacher institution must take this into account in the teaching practice programme.

Yimer: Great suggestion. Is there *anything else* you need to suggest?

Pre-service teacher: Yes, the practicum guideline needs revision. It is bulky and not well organized. There are many unrelated things into it. So, the guideline with the formats and checklists should be coherent and few in number because If the pages of the practicum guideline are reduced and the focus of the guideline is clear, then writing our reflective teaching experiences become.

Pre-service teacher: Additionally, the feedbacks in our programme should be enhanced. I believe many of us are not getting continuous feedbacks for teaching practices from the schools. In this regards, cooperating teachers are comparatively better in providing comments about our classroom performance, but instructors' feedbacks need to be improved. Moreover, the feedbacks should be constructive. Some of the lecturers provide their feedbacks short and fast.

Pre-service teacher: as we all know, we are lacking reading materials in the institute. The institute is giving us action research project module and practicum guideline for

teaching practices, but for our theoretical classes there are not adequate pedagogical materials to read for more understandings. I think the instructors' slides are not enough to know teaching. The modules are not accessible in print forms and are not complete. Thus, this should be improved.

Yimer: Ok, last and general question. What reforms are currently needed in the pre-service secondary school teacher education to in general to ensure reflective teachers for secondary schools in Ethiopia?

Pre-service teachers: Ok, let me try please.

Yimer: Ok, please.

Pre-service teacher: Since we are applied degree graduates, we did not expect to join this profession. After graduation, we heard that there is a PGDT programme in which applied graduates can join the teaching profession after passing the entrance exams. Hence, the government should make this programme known and as sometime applied graduates should be motivated to join the training. If possible, there should be a mechanism for applied science students to join this training before their graduations.

Yimer: Thank you so much for providing helpful and a lot of great information for the study.

Pre-service teachers: It is our pleasure.

Yimer: All the best.

Pre-service teachers: Thanks

APPENDIX H: INSTITUTIONAL RESEARCH PERMIT

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Dilla University

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Institute of Education and Behavioral Sciences

Ref: DU/IEBS/1837/2016

Date: 8th April 2016

TO WHOM IT MAY CONCERN

RE: REQUEST FOR PERMISSION TO CONDUCT RESEARCH

The Institute of Education and Behavioural Sciences of Dilla University would like to confirm that Mr. Berhanu Mekonnen Yimer, a lecturer in the Department of Curriculum and Instructional Supervision and UNISA PhD student is carrying out a study on "INVESTIGATING AND IMPROVING REFLECTIVE TEACHING IN ETHIOPIAN SECONDARY SCHOOL TEACHER EDUCATION INSTITUTIONS". The Institute of Education and Behavioural Sciences has given him permission to conduct the study as part of his PhD Studies and is also kindly requesting all participants to assist him with the information required by him to successfully carry out his study.

Sincerely yours

Dr. Bekuretsion Hailesilassie
Dean, Institute of Education and Behavioural Sciences
Dilla University

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APPENDIX I: LANGUAGE EDITING CERTIFICATE

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Degaf Consultancy and Training PLC

ቁጥር/ Ref: DCTP 023/18
ቀን/ Date: April 12, 2018

To Whom It May Concern

Subject: Language Edition Service Certificate

This is to certify that our firm, Degaf Consultancy and Training PLC, has undertaken the English language editing service on Mr. Berhanu Mekonnen Yimer's Thesis entitled "Investigating and Improving Reflective Teaching in Ethiopian Secondary School Teacher Education Institutions" in April 2018.

Our professional editors have taken special account of the language and layout aspects of Mr. Berhanu Mekonnen thesis, paying attention to grammar, spelling, punctuation, organization and formatting issues. Special care was taken not to alter the research content or the author's intentions during the editing process.

Any query could be made in this regard please contact to Mr. Desalegn Takele, General Manager, via: degafconsultancy@yahoo.com, desalegntakele40@gmail.com or Telephone: [+251-911484864](tel:+251-911484864)/[+251-910848247](tel:+251-910848247)

Sincerely,



ደሃለኝ ታክሌ
Desalegn Takele
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G/Manager



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