AN INVESTIGATION OF RESEARCH KNOWLEDGE AND ORIENTATION OF ENGLISH LANGUAGE TEACHERS ATTENDING AN MA PROGRAM

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In loving memory of my mother

H. Nurderen SÖNMEZ

"Being the idol and the only person to enlighten my life,

I owe you a lot."

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ABSTRACT

An Investigation of Research Knowledge and Orientation of English Language Teachers Attending an MA Program

by

Görsev İnceçay

The purpose of this study is to investigate whether Current Issues in In-service Teacher education (INSET) course, one of the components of a Masters of Art (MA) program in Teaching English as a Foreign Language (TEFL), helps participating teachers develop as teacher-researchers. Seventeen non-native English as a Foreign Language (EFL) teachers participated in the study. The study specifically aimed to examine a) if there are any differences in participants' research knowledge, practice, motivation for research, efficacy in research and reflectivity at the end of the INSET course, b) teachers' opinions about the contributions of the INSET course and other MA courses they have attended to their research knowledge and practice. Data came from questionnaires (i.e. Teachers' Research Knowledge Questionnaire (adapted from Borg, 2009), Motivation for and Efficacy in Research questionnaires which were originally developed for the purposes of this study) and other sources (i.e. Pre- and post-course research knowledge and practice essay and interview, motivation for research and efficacy in research interview, 10 weekly written tasks, reflective journals of the participants and researcher's post-facto notes). The findings of the study indicated that the participants' research knowledge was broadened as a result of the instruction and the hands-on experience they gained throughout the course. Moreover, their efficacy for research engagement increased significantly. Additionally, the instruction affected participants' dialogic reflection. However, no change in their critical reflection was observed. Finally, the participants felt that all MA

courses as well as the INSET course contributed to their research knowledge. Nevertheless, they pointed out that the INSET course was the only course affecting their research practice due to the hands-on practice integrated into the course. These results revealed significant implications for teacher educators, EFL teachers, teacher education departments and MA programs.

Key words: *teacher-research; research knowledge and practice; motivation for research; efficacy in research; reflectivity; in-service teacher education*

KISA ÖZET

Yüksek Lisans Programına Devam Eden İngilizce Öğretmenlerinin Araştırma Bilgi ve Oryantasyonun Araştırılması

Görsev İnceçay

Bu çalışmanın amacı İngilizce'yi yabancı Dil olarak öğretme yüksek lisans programında bir ders olan hizmetiçi eğitim dersinin öğretmenlerin kendi uygulamalarını araştırabilecekleri araştırmacı öğretmen olarak gelişimlerine muhtemel katkılarını ölçmektir. Araştırmaya İngilizceyi yabancı dil olarak öğreten ve yüksek lisans programına kayıtlı 17 kişi katılmıştır. Araştırmanın ilk amacı, hizmet içi eğitim dersi sonunda katılımcıların araştırma bilgisi, uygulaması, araştırma motivasyonları, araştırma yeterlilikleri ve yansıtıcılıklarında bir fark olup olmadığını araştırmaktır. Son olarak, araştırmaya katılan yüksek lisans öğrenci İngilizce öğretmenlerinin hizmet içi eğitim dersi ve diğer yüksek lisans derslerinin araştırma bilgi ve uygulamarına olan katkıları hakkındaki düşünceleri de bu araştırma ile araştırılmaktadır. Bu çalışma için veriler Öğretmenlerin Araştırma Bilgisi Anketi (Borg, 2009), bu çalışmanın amacı doğrultusunda orijinal olarak geliştirilmiş Araştırma Motivasyonu ve Araştırma Yeterliliği ölçekleri, görüşmeler, yazılı dökümanlar, kompozisyonlardan ve araştırmacının notlarından elde edilmektedir. Sonuçlar katılımcıların var olan araştırma bilgilerini ve araştırma pratiklerini bu sürece dahil oldukları deneyimlerle geliştirdiklerini göstermiştir. Bunun yanı sıra, araştırma yeterliliklerinde önemli artış gözlemlenmiştir. Ayrıca, verilen eğitim sonucu katılımcıların diyalojik yansıtıcılıkları artarken, eleştirel yansıtıcılıkları artmamıştır. Son olarak, tüm yüksek lisans derslerinin araştırma bilgisine katkısı olduğu ancak sadece INSET dersinin araştırma pratiklerine katkısı olduğu belirtilmiştir. Bulgular öğretmen yetiştiriciler, İngilizce

öğretmenleri, İngilizce öğretmenliği bölümleri ve yüksek lisans programları için önemli önemli sonuçlar ortaya koymuştur.

Anahtar Kelimeler: *öğretmen araştırması; araştırma bilgisi ve uygulaması; araştırma motivasyonu; araştırma yeterliliği; yansıtıcılık; hizmetiçi öğretmen eğitimi*

CHAPTER 1

INTRODUCTION

1.1. Background to the Study

In the field of education, the concept of teacher has undergone several changes due to the impact of different schools of thought in educational psychology. While the teacher was labeled as technician by being under the effect of positivism for many years, s/he has been identified as thinker and the reflective practitioner by being highly affected by cognitive psychology. Most recently, the impact of social constructivism has reshaped the concept of teacher as a reflective practitioner by involving him/her within a dynamic nature of the interplay among teachers, learners and tasks where teachers have to share their classroom based problems and try to solve them either through the help of other colleagues or themselves by social inquiry. Thus, teaching became a process that involves continuous inquiry and renewal. This change in the concept of the teacher and teaching has caused teacher-research to be under study lately. As Cochran-Smith and Lytle (1999) suggest, teacher-as-researcher movement has helped unite the two distinct sides of teaching – reflection and action (thinking and doing). With this movement, the teacher is labeled as the professional who is knowledgeable about 'not only content and pedagogy, but also how to learn from teaching in an ongoing way, and how to pose and address new problems and challenges that do not have existing answers' (Darling-Hammond & Bransford, 2005). Therefore, teacher research is of value to help teachers become life-long learners who can raise questions and continuously learn how to teach by researching and reflecting on practice across their professional career (Cochran-Smith, Barnatt, Friedman and Pine, 2009).

1.2. The Statement of the Problem

Experienced teachers enroll in MA in TEFL programs for refreshing their theoretical knowledge and implementation of their knowledge in their practice. Certainly, teacher-research knowledge is necessary for them to be able to analyze their practice for improvement purposes. Therefore, teacher-research is assumed to be one essential component of these MA programs which are usually opened for the professional development of teachers. Borg (2006) points out that teachers' awareness of the importance of teacher-research should be raised by involving them in the research process actively.

However, in the field, it is argued that MA in TEFL programs are not very helpful in initiating and encouraging teacher-research especially out of these formal contexts (Borg, 2006, 2009). Therefore, in addition to the theoretical courses, a course, which aims to develop teachers as teacher-researchers who are motivated and efficacious to conduct research in order to explore their own teaching in their own classrooms as the owners of the story, should be integrated into these programs.

1.3. Significance of the Study

The present study is significant due to the fact that an MA course (INSET), was designed to train EFL teachers as researchers who feel capable and motivated to explore the puzzling events in their own classrooms. Moreover, this INSET course was aimed at engaging participating teachers in the research process actively in order to practice the theory discussed during the course.

Another significance of this study was to contribute to the field of teacher education with significant insights into how the role of being research engaged affects teachers' continuous professional development.

Furthermore, since to the knowledge of the researcher, there have been no attempts in the field of education to develop questionnaires with the aim of investigating teachers' motivation

and efficacy research engagement, this study aimed at contributing to the field by developing two different questionnaires: a) a questionnaire tapping the participants' motivation for research and b) a questionnaire tapping the participants' efficacy in research. Finally, this study provided implications for the field of teacher education, MA in TEFL programs and curriculum designers and developers.

1.4. Rationale for this Study

In the field, MA in TEFL programs aimed at contributing to teachers' professional development. In Turkey, for example, experienced teachers wish to enroll in such programs for promotion or to refresh their theoretical knowledge and implementation of their knowledge in their practice. In this sense, these programs generally offer courses such as Approaches to Skills in Language Teaching, Research Methods, and Second Language Acquisition. However, they may fail to create a link between teachers' theoretical knowledge and practice. Therefore, in addition to these courses, a course, which aims to develop teachers as teacher-researchers who are motivated and efficacious to conduct research in order to explore their own teaching in their own classrooms as the owners of the story, should be integrated into these programs.

There are some research studies in the field stating that conducting teacher-research in a formal context will not be productive and the argument that teacher-research that is conducted as a requirement to obtain a BA or an MA qualification cannot inform teachers' understandings of their own practices (Phipps, 2006). However, it is also a well-known fact that teachers are more likely to become engaged in doing research if they are encouraged to do so within a structured, formal and supportive framework where they have the chance to learn, experiment and receive feedback (Borg, 2013). This framework is also beneficial for engaging teachers into a formal practice of teacher research for the INSET course which served as a treatment for this study and also aided to evaluate the research conducted by the teachers.

1.5. Purpose of the Study

The purpose of this study is to investigate the possible effects of the INSET course as one of the components of an MA in TEFL program in order to help participating teachers develop as teacher-researchers who can explore their own teaching practice. In doing so, the study first aimed to see if there were any differences in their research knowledge, practice, motivation for research, efficacy in research and reflectivity at the end of the INSET course which was redesigned to help them develop as researchers exploring their own teaching. Finally, participating EFL teachers' opinions about the contributions of the INSET course and other MA courses regarding their understanding of research and implementation were investigated.

Specifically speaking, this study aimed to address the following research questions:

1. Does the INSET course affect teachers' research knowledge and practice? If so, how?
2. Does the INSET course affect teachers' motivation for and efficacy in being engaged in teacher research? If so, how?
3. Does the INSET course affect teachers' reflectivity? If so, how?
4. What are the opinions of EFL teachers about the relative contribution of INSET and other courses to their understanding of teacher research and implementation?

1.6. Overview of Methodology

Participants and Setting

Seventeen English as a Foreign Language (EFL) teachers accepted to the MA in TEFL program in the fall 2012-2013 academic term participated in the study. After taking some theoretical courses, they took INSET as a compulsory course in the spring semester. This course also served as a treatment for the study.

Treatment

The INSET course is one of the courses that the MA students have to take for partial fulfillment as a requirement for the MA in TEFL program. Students are also required to take a general Research Methods course which is designed to provide a well-grounded and advanced level introduction to the overall process of academic research. It provides a sound introduction to some major topics such as the relationship between science and educational research, related theories, the process of educational research, conceptualization and measurement, issues related to sampling, causation and research design, approaches to data collection (experiments, survey research, observations, interviews and action research), evaluating the scientific merits of other researchers' work, qualitative and quantitative data analysis, and conducting basic analysis tests such as t-test, chi-square, correlation and ANOVA.

However, the INSET course has been specifically redesigned to focus on raising MA students' awareness of what teacher-research is and how it is applied in their teaching practice so that they become independent researchers exploring their own teaching practice. The major purpose of this course is to fill the practical gap in the program which mostly consists of theoretical courses by providing EFL teachers with the opportunity to practice research in their own contexts. This personal practice, in turn, is believed to involve them in a continuous professional development and reflectivity.

The course was offered 3 hours per week for 15 weeks. Every week two hours were dedicated to theoretical instruction about what teacher-research is and how to conduct it. During the remaining one hour, students' reflections on weekly assigned tasks and their experiences while they were conducting their research were discussed. In other words, this one hour worked as feedback session in which both peer-feedback and instructor feedback were provided. The theoretical information was provided through reading assignments to be discussed in the class.

During these discussions participating EFL teachers were encouraged to relate what they read to their research engagement.

Data Collection

Data for this study came from: (a) Teachers' Research Knowledge questionnaire (adapted from Borg, 2009) (see Appendix A), (b) pre and post-instruction teachers' research knowledge essays of which guidelines were prepared by following the items in the Teachers' Research Knowledge questionnaire (adapted from Borg, 2009) (see Appendix D), (c) pre and post-instruction research knowledge interviews, (d) pre and post-instruction teachers' motivation for research questionnaire (developed by the researcher and the supervisor) (see Appendix C), (e) pre and post-instruction teachers' efficacy in research questionnaire (developed by the researcher and the supervisor) (see appendix B), (f) written tasks (see Appendix G) and journal entries (see Appendix H), (g) pre and post-instruction interviews to investigate teachers' motivation for (see Appendix F) and efficacy in research (see Appendix E), (h) post-instruction essay to elicit teachers' opinions about the contribution of the INSET course to their research knowledge (see Appendix J), (i) researchers' post facto notes, (j) and participants' research reports. Data collection started in the beginning of the spring semester in 2012-2013 academic year and was completed in the end of the same semester.

In an attempt to answer the first research question (whether INSET course affected teachers' research knowledge and practice) data were collected through teachers' research knowledge and practice essays, interviews both at the outset of the instruction and at the end of the instruction. However, other data sources mentioned previously also contributed to the result of this research question.

In order to answer the second research question (Whether INSET course affected teachers' motivation for and efficacy in being research engaged), data were gathered through motivation for research scale (Appendix C), efficacy in research scale (Appendix B) and

interviews (Appendix E and F) before and after the instruction. Essays and reflective journals of the participants also helped better understand their motivation and efficacy in research.

Data for the third research question (whether INSET course affect teachers' teaching reflectivity) came from the weekly assigned written tasks (Appendix G) and journal entries (Appendix H).

Finally, to investigate the fourth research question (teachers' opinions about the relative contribution of the INSET course and other MA courses to their research knowledge and practice) data came from essays written after the INSET course.

Data Analysis

For the present study, a combination of qualitative and quantitative strategies was used for data analysis to ensure internal validity. For the first research question (Does the INSET course affect teachers' research knowledge and practice? If so, how?), the analysis of quantitative data gathered from Teachers' Research Knowledge Questionnaire (adapted from Borg, 2009) was done through descriptive statistics. In addition, qualitative data gathered through essays, interviews and written documents were analyzed through open-coding and content analysis. Analysis was done both manually and through N-Vivo 10 software.

Quantitative data analysis of the second research question (Does the INSET course affect teachers' motivation for and Efficacy in being engaged in teacher research? If so, how?) was done through descriptive statistics and the Wilcoxon Signed Rank test on the data gathered through Motivation for Research and Efficacy in Research Questionnaires. The analysis of the qualitative data was the same with the first research question.

In order to answer the third research question which aimed at investigating the effect of instruction on participants' teaching reflectivity, participants' weekly written tasks and journal entries were analyzed through the reflectivity criteria suggested by Hatton and Smith (1995) (see Appendix I).

Finally, the fourth research question which aimed to investigate the contributions of the INSET course and other courses to teachers' understanding of teacher research was investigated through the open-coding of the essays written by the participants and N-Vivo 10 software.

1.7. Operational Definitions of Key Words

Teacher-research: It is a (a) systematic, (b) investigation conducted by teachers to find solutions to the problems or explore any puzzling events in their own contexts, (c) individually or in collaboration, (d) to make the results public for better teaching.

Teacher as a researcher: A teacher who (a) willingly investigates his/her own teaching practice (b) has motivation for research, (b) efficacious in research, (c) reflective.

Academic research: It is the systematic and objective analysis of observed educational issues with a large group of participants that leads to generalizations and theories.

Motivation for research: Internal and external drives of teachers that direct teachers to explore their own teaching and teaching contexts.

Efficacy in research: Feeling capable to define and conduct teacher-research to investigate problems in teaching contexts.

1.8. The Organization of the Chapters

This dissertation consisted of five chapters; (1) Introduction, (2) Literature Review, (3) Methodology, (4) Results, (5) Conclusion and Implications.

In the first chapter, brief background information, statement of the problem, significance of the study, overview of methodology, research questions, operational definitions of key words were included.

Chapter 2 consisted of a sound review of the literature related to the following components of the study; (1) teacher research, (2) previous research on teacher-research both in L1 and EFL contexts, (3) role of motivation and efficacy on teacher research, reflectivity of teacher researchers, (4) and related studies in the field.

In Chapter 3, the detailed research design of the present study including the theoretical framework, setting and participants, treatment, data collection instruments and how to analyze the research questions were presented.

Chapter 4 presented the results of the individual research questions. The fifth chapter included the conclusion and implications of results in line with the literature. Additionally, implications, limitations of the study and recommendations for further research were also included in the fifth chapter. At the end of the dissertation, references and appendices were provided.

CHAPTER 2

LITERATURE REVIEW

2.1. Academic Research in the Field of Education

Research in simple terms has been defined as 'trying to find answers to questions' (Dörnyei, 2007). In order to do good research and be confident with the results, being sytematic is the most commonly suggested characteristic (Dörnyei, 2007; Fraenkel & Wallen, 1996). That is, research in the scientific sense is 'the organized, systematic research for finding answers to the questions we ask' (Hatch & Lazaraton, 1991).

Academic research method in social sciences is derived from the positivistic philosophy. Among the various schools of positivism, logical positivism which is the most influential one, states that nothing is meaningful unless it can be observed by human senses (Cohen, Manion & Morrison, 2011; Dörnyei, 2007; Farhady, 1996; Fraenkel &Wallen, 1996). Following this principle, only observable phenomena are accepted to be researchable in social sciences. As a result of this perspective, the academic research method has been defined as a 'more formal, systematic, and intensive process of carrying out a research'. In a similar vein, other researchers concluded that research is a systematic and objective analysis and recording of controlled observations that may lead to the development of generalizations, principles or theories (Hatch and Lazaraton, 1991; Wellington, 2000).

Following the preceding discussion on the definition of academic research, it is pointed out that there are some necessary characteristics that academic research should have. Regarding these characteristics, research is systematic that requires a researcher to employ a structured procedure. Hence, the nature of academic research has been described as its being logical, reductive, replicable and generative. That is to say, from beginning till end, every step in research is suggested to follow some pre-established rules (Anderson and Anderson, 1998; Cohen, Manion and Morrison, 2011; Farhady, 1996; Fraenkel and Wallen, 1996).

In order to conduct academic research by following the characteristics stated previously, the researcher should follow a very systematic route in which s/he gathers large amount of data from large sample groups due to generalization and hypothesis testing concerns. As a conclusion, research in general terms is defined as: "...a process of formulating questions, problems or hypotheses, collecting data or evidence relating to these questions/hypotheses; and analyzing or interpreting these data" (Nunan, 1992).

As it was stated previously, it might be concluded that academic research should be conducted within a scientific process. In this process, six interrelated principles of research have been suggested (Fraenkel and Wallen, 1996; Farhady, 1996; Shavelson and Towne, 2002): (1) posing significant questions that can be investigated empirically, (2) linking research to relevant theory, (3) using methods that allow direct investigation of the question, (4) providing coherent and explicit reasoning, (5) replicating and generalizing across studies, and (6) publishing research to encourage professionals and criticism.

This discussion shows that values, feelings, behavior and other affective factors which are all personal concerns that cannot be observed, have limited place in academic research which is under the effect of positivistic philosophy (Anderson and Anderson, 1998; Cohen, Manion and Morrison, 2011; Farhady, 1996). This situation resulted in the general feeling of the academic researchers about the inappropriateness of this research type to be applied in education to lead to improvements in teaching. That is, Freeman (1996) stated that this approach is generally not applicable for educational research. There are many reasons for this situation. First of all, instead of positivistic philosophy, naturalistic paradigm is stated to be more appropriate for research conducted by the teachers in the classroom by gathering mostly qualitative data in the naturally occurring settings (Bailey and Nunan, 1996; Kincheloe, 2003). In other words, positivism suggests some technical standards ignoring the *human* within the classroom context. Secondly, as argued by many researchers, teachers who are the *knowers of*

the story cannot be excluded from the field aiming at improving the quality in teaching (Freeman, 1996; Borg; 2006, 2009). In other words, as stated by Allwright and Bailey (1991) teachers are suspicious of researchers since the results of their research have little direct practical relevance to their problems. As a result, this situation leads to a big gap between academic researchers and the *knowers of the story* - the teachers. Thirdly, teachers who are the practitioners in the teaching context are suggested to take the responsibility of their teaching by being actively engaged in all steps of the teaching process (Allwright and Bailey, 1991; Borg, 2006; Freeman, 1996; McKernan, 1991). With all these concerns in the field, the interaction of research and teaching turned out to be the central concern challenging academic research.

2.2. Action Research

Action research was first formulated by a developmental psychologist, John Lewin (1946), in the mid twentieth century by being rooted in the theory of social change as indicated by Bargal (2006). Lewin argued that the only way to understand and change certain social practices is to include practitioners in all phases of inquiry (cited in McKernan, 1991). For Lewin, the process of action research is very much similar to the problem solving process: 'It proceeds in a spiral of steps, each of which is composed of a circle of planning, action and fact finding about the results of the action' (p. 206). Within the cycle, Lewin gave utmost importance to the evaluation component. He believed that a person involved in the process cannot know to what extent his objectives were achieved. It may also result in changes in methods of intervention, suggest various problem solving strategies, and even change the whole process of the research.

As a final issue, Lewin mentioned the role of cooperation between the researchers and the practitioners: "…action, research and training are a triangle that should be kept together for the sake of any of its corners" (p. 211).

Bargal (2006) formulated eight principles of action research based on Lewin's writings (1946,1947): It (1) is a systematic study of a social problem to solve; (2) includes a spiral process of data collection to determine goals, action to implement, goals and assessment of the result of the intervention; (3) demands feedback of the results of intervention to all parties involved in the research; (4) requires continuous collaboration between researchers and practitioners; (5) relies on the principles of the group where the research takes place and is carried out in a public way; (6) takes the needs of the parties involved into account; and (7) aims to generate knowledge and formulate principles.

As a result of this formulation of action research, it has become an acceptable method of inquiry in education by identifying the distance between academic researchers and classroom practitioners (Kemmis, 1980). Based on his observations, Kemmis states that policy-makers are the only ones attending conferences, which focus on teaching from the world of practice. When he questioned the reasons why teachers did not attend these conferences, he noticed the strong gap between teachers and researchers. As a result, he suggested action research be employed in education in cooperation as suggested by Lewin (1946). This was recommended as the first and the only method to narrow the gap between 'academics' and 'the field'.

2.2.1. From Action Research to Teacher-Research

In line with the argument put forth by Kemmis which was summarized previously, in the second half of the 20th Century, Stenhouse indicated that teachers were "highly competent professionals who should be in charge of their own practice" (Stenhouse, 1975, p. 144). He further suggested that teachers should be in continuous professional development by being active agents who question their own practice systematically and test theory and innovations in their practice. Together with this proposition of Stenhouse (1975), curriculum development and professional development were merged into a single activity.

According to Stenhouse, the uniqueness of every classroom context requires any innovation or new idea to be tested and confirmed by the teacher herself/himself in her/his own classroom. Accordingly, the teacher needs to test the applicability of any innovation in her/his own classroom context. Thus, s/he improves her/his own understanding of her/his own practice and gets better in teaching.

In a similar vein, Hoyle (1973) attempted to define the implications of curriculum development for teachers with the concept of 'extended professionalism' in contrast to 'restricted professionalism'. 'Restricted professionalism' has been explained as; (a) having a high level of classroom competence; (b) being student-centered, having a high degree of skill in overcoming problems related to students; (c) evaluating one's own performance by looking at the changes in students' behavior and success; and (d) attending short courses. On the other hand, 'extended professional' has some specific skills. S/he a) views work in wider context of school, community and society; b) participates in a wide range of professional development activities (e.g., conferences); c) has a concern to link theory and practice; d) has the commitment to systematic questioning of one's own teaching; and e) has the concern to question and to test theory in practice. Briefly, 'extended professional' has the capacity to develop autonomously through systematic self-inquiry, the study of other teachers' work and testing ideas through research. Therefore, it will not be incorrect to claim 'extended professional' as the first concept involving research as an important component of being a teacher.

In addition to the contributions of Lewin, Stenhouse and Hoyle to teacher-research movement, the role of Donald Schon should not be ignored. Especially in the USA, Schon's work on the reflective practice resulted in higher interest in teacher-research. According to him, professionals are thinking, reflective practitioners instead of unthinking technicians. With this definition, teachers gained the role of being autonomous investigators of their own work.

2.3.Teacher-research in Language Teaching

In language teaching, the roots of teacher-research date back to 1980s. The concept of *teacher as researcher* started to be recognized as a result of the limitations of the large scale and longitudinal studies conducted with the aim of identifying the best methods and approaches in language teaching/learning which were open to doubt (Allwright and Bailey, 1991). This was probably because of their being essentially quantitative and having involved large groups of participants. In addition, they were conducted by academicians with no or little concern about the practitioner due to lack of collaboration between the researcher and the practitioner.

Since these classroom-based studies were not conducted by the teachers themselves or at least in cooperation with them, they also failed to meet the needs and to solve the problems of the language teachers (Borg, 2010). Thus, the approach that defines the teacher as the technician who is expected to practice the findings of academic research has become the focus of the criticism. Allwright (2005) verbalizes the situation as 'disillusionment with technicist research'.

Therefore, classroom-based research which fore fronted the practitioner as the owner of the story of her own classroom practice appeared as an alternative research methodology and a logical step in the historical progress of teacher-research. As Freeman (1996) and Kemmis (1980) pointed out, the gap between teachers and researchers, in other words between theory and practice started to narrow down. Therefore, teaching was no longer perceived to be 'something that certain people do and others research' (Freeman, 1996, p.106). In other words, an important step was taken to change the perception that research conducted by academicians can influence what teachers understand and do in their classrooms (Freeman, 1996). With this aim, teachers were encouraged to engage in a systematic research process to solve their own problems or test the applicability of innovations in their own contexts either in collaboration or individually.

The first accounts of teacher-research show that, the suggested research process was very demanding by requiring extended time, effort and systematicity due to the academic nature of the research being engaged in. In other words, as in the standard view of academic research (Robson, 2002), teachers were required to follow all the steps such as; problem posing, doing literature review, collecting and analyzing data and writing a report to share the results. As a result this structured and academic form of teacher research was criticized and different perspectives related to teacher-research have been proposed.

One of them is *evidence-based practice* (EBP), which takes its roots from medicine (Biesta, 2007). Following the general concerns related to the quality and the effects of teacher-research in both UK and the USA, this alternative perspective was stimulated in order to make the teaching profession an evidence-based one through which teachers would either do research or engage with it by reading and applying the outcomes of academic research (Hargreaves, 1999). In other words, the evidence-based practice movement argues that policymaking and practice should be based on research evidence (Hammersley, 2005). Proponents of evidence-based practice underline that educational research should be ‘‘the kind of progressive, systematic improvement over time that has characterized successful parts of society throughout the twentieth century’’. However, due to the positivistic assumptions underlying this alternative way of teacher research, some other scholars have criticized the applicability of EBP in education (Elliott, 2001). Even though the validity of EBP for education has been questioned, there is a common agreement that the more conscious use of and involvement in research by practitioners can have a more positive effect on their profession (Borg, 2013).

Another alternative perspective on teacher-research was suggested by Allwright (1997, 2003, 2005). Despite being one of the early efforts to encourage teacher-research (Allwright and Bailey, 1991), Allwright (1997) admitted that his encouraging teachers, unintentionally, created extra burden for the practitioners who do not have adequate time and support. The

research done under these circumstances was believed to be incomplete and unmanageable. As a justification for this claim, Allwright stated that he observed teachers during in-service courses ‘to be under pressure in order to become the sort of "expert" researcher that full-time academics themselves aspire to be’. Under this heavy burden, they complained to be under pressure of both conducting a research and teaching. Therefore, results might be amateurish research, which is done unwillingly through force. This might also result in relief that as soon as they complete their research, the teachers can turn back to their teaching without feeling the necessity of doing more research.

As a result of this regret, Allwright (2003) developed *Exploratory Practice* (EP) as a reaction to academic teacher-research. With EP, the emphasis has been placed on *understanding* rather than *problem-solving* and *puzzling event* instead of *problem* which causes a negative feeling about the teaching context. He further stated that the common agreement about problem-solving as the distinguished character of teacher-research and trying to improve learners’ achievement is both restrictive and unhelpful. What he suggests, instead of ‘academic teacher-research’, is to understand the *quality of life* in the teaching context (Allwright, 2003). Therefore, not only teachers but also the learners should be seen as classroom practitioners, helping to understand life in language classroom in collaboration.

2.3.1. Conceptualizations of Teacher-research

As discussed in the previous section, teacher-research has been defined by different perspectives and it has undergone different conceptualizations. To begin with, Cochran-Smith and Lytle (1999) discussed three conceptualizations of teacher-research as: (1) social inquiry, (2) ways of knowing and (3) practical inquiry. According to the first concept, teacher-research is a form of action research to promote social change. The second one sees teacher-research as a form of collaborative inquiry to improve teaching contexts and the last one (practical inquiry) states that teacher research helps developing teachers’ practical knowledge.

In a similar line, Hargreaves (1996) and Hammersley (2004) conceptualized teacher-research as evidence-based practice and stated three different views. According to EBP, teacher-research is (1) a way of solving practical problems, (2) movement for social change and (3) a form of professional development within a systematic approach.

Moreover, in the field of language teaching, Exploratory Practice appears as an important conceptualization (Allwright, 1997, 2003, 2005). EP was formed to be a type of teacher-research that can be an integral part of teachers' everyday life aiming at improving the quality of classroom life. On the contrary to the problem-solving principle of action research, its purpose is to understand the puzzling events. EP makes teacher-research 'a more feasible and productive activity for teachers and learners'. Despite this distinction between EP and action research, Borg (2013) states that there are various examples showing that teachers can make use of action research in a practical way (e.g. Valeri, 1997). For this reason, there is no need to overemphasize the distinctions between these two alternative approaches to teacher-research.

In addition to these conceptualizations, in recent applied linguistics literature, there are some terms which are used interchangeably to refer to teacher-research; namely, classroom research, teacher research and action research. However, some researchers argue that they have some major distinctions in terms of focus and methodology (Allwright and Bailey, 1991; Bailey, 1998; Burns, 1999). Burns in her study explains that classroom research refers to the *focus* and often to the location of the research. Similarly, Allwright and Bailey (1991, p. 2) define classroom research as research that is *centered* on the classrooms which are conducted by academic researchers. Teacher research is defined to refer to the *people* conducting the research (Burns, 1999). In other words, it is stated to be conducted by teachers and may center on the classroom but does not necessarily (Allwright and Bailey, 1991, p. 2). On the other hand, action research refers to the distinctive research *methodology* (Burns, 1999). Specifically

speaking, action research is stated not to be restricted to a classroom setting or to teachers. It can be used as a research methodology in various settings. However, since it is mostly used in education, it can be used interchangeably with teacher research and classroom research. Despite the distinctions in the literature, teacher research, action research and classroom research will be referred as teacher-research in this study which focuses on all the parties in language teaching such as; students, teachers, and materials.

2.3.2. Defining Teacher-Research

Many researchers have contributed to the definition of teacher research (Stenhouse, 1975; Brumfit and Mitchell, 1989; Freeman, 1996; Cochran-Smith and Lytle, 1999; Carter and Halsall, 1998; Dadds and Hart, 2001; Lankshear and Knobel, 2004, Borg, 2010). According to these definitions research can either be conducted by teachers themselves or in collaboration with peers or a research expert who provides the sound framework of rigorous research methods, based on the story of the teacher (Freeman, 1996).

Nevertheless, there are some distinctions among the definitions. To illustrate, while Lankshear and Knobel (2004) focus on the importance of collaboration, Brumfit and Mitchell (1989) pay attention to the necessity of making the research public with the concern of communicating results. On the other hand, Dadds and Hart (2001) mention the role of improving practice for the benefit of others. From a different perspective, Allwright (1997, 2003) focuses on *understanding the quality of life* in the classroom. Recently, Borg (2010) defined teacher-research as a synthesis of these previous definitions:

> "…a systematic inquiry, qualitative and/or quantitative, conducted by teachers in their own professional contexts, individually or collaboratively (with other teachers and/or external collaborators), which aims to enhance teachers' understandings of some aspect of their work, is made public, has the potential to contribute to better quality teaching and learning in individual classrooms, and

which may also inform institutional improvement and educational policy more broadly." (p.395)

Following the definitions discussed above, teacher-research, teacher as a researcher and academic research can be operationalized as follows for the purposes of this study:

Teacher-research: It is (a) systematic, (b) investigation conducted by teachers to find solutions to the problems or explore any puzzling events in their own contexts, (c) individually or in collaboration, (d) to make the results public for better teaching.

Teacher as a researcher: A teacher who (a) willingly investigates his/her own teaching practice (b) has motivation for research, (b) is efficacious in research, and (c) is reflective.

Academic Research: It is the systematic and objective analysis of observed educational issues with a large group of participants that leads to generalizations and theories.

2.3.3. Advantages of Teacher-research

As Nunan (1989) pointed out, the concept of teacher-research has definitely brought a change to the concept of teacher. A teacher's identity as a researcher has been fore fronted because of the importance of their researching their own classroom to improve their own teaching and the necessity of being involved in educational innovations and school-based curriculum development (Carr and Kemins, 1985). Moreover, teacher-research has been accepted as the 'end-point of professional development' of which benefits have been cited (Nunan, 1989; Davies, 1999; Kincheloe 2003; Lyle 2003; Lankshear and Knobel, 2004; Kirkwood and Christie, 2006; Borg, 2009). These benefits can be listed as follows: (1) It bridges the gap between research and action by creating a link between the researcher and the practitioner (Nunan, 1989); (2) by being a form of professional development, it has a profound effect on teachers (Stenhouse, 1975); (3) when teachers engage in research, they start to make justified pedagogical decisions which help them improve their teaching skills (Davies, 1999);

(4) it helps teachers understand what they learn from experience; (5) teachers become learners rather than functioners; (6) teachers reflect on their professional needs and they explore the learning processes (Kincheloe, 2003); (7) it impacts teacher efficacy, especially in the area of instructional practices (Cooper-Twamley, 2009); (8) it acts as a consciousness-raising exercise by engaging teachers in critical thinking through observation and analysis of classroom events (Nunan, 1989); (9) it develops teachers' autonomy in making professional judgments (Lankshear and Knoebel, 2004); and (10) it reduces the feeling of frustration and isolation (Roberts, 1993).

In addition to these numerous benefits of teacher-research for teachers and their development, in a recent analysis, Bell et al. (2010) concluded that it is also very effective on learners. They explained that there is a direct link between teachers' engagement in/with research and positive learner outcomes by contributing learners' attitudes, motivation, knowledge and language skills.

2.3.4. Barriers to teacher-research

On the contrary to the benefits of teacher-research in the field of language teaching, there has been ample research explaining factors that discourage teachers from being engaged in/with teacher research (e.g. Allwright, 1993; Allison and Carey, 2007; Allwright and Hanks, 2009; Atay, 2006; Borg, 2003; Borg, 2007; Borg, 2009; Burns, 2009; Edwards, 2005; Henson, 2001; Maharaj-Sharma, 2011). When the deterring factors in the literature were analyzed, several barriers can be listed: (1) inaccessibility of research done by scientific researchers (Borg, 2003; Borg, 2013), (2) non-collaborative nature of schools (Henson, 2001; Worrall, 2004), (3) lack of time and resources (Allison and Carvey, 2007; Allwright and Hanks, 2009; Borg, 2009; Borg, 2003; Burns, 2009; Edwards, 2005), (4) implied inadequacy stated by competent teachers about the unnecessity of doing research (Borg, 2003); (5) lack of

knowledge, skills and expertise (Allison and Carvey, 2007; Allwright, 1993; Borg, 2003; Burns, 2009; Edwards and Willis, 2005); and (6) lack of teacher motivation and encouragement (Allison and Carvey, 2007).

All these factors are believed to discourage language teachers to practice research in their teaching contexts.

2.3.5. Critiques of Teacher-Research

As any debated issue in the field of language teaching, teacher-research is not without any critiques either. The first and the most common criticism has been about the reliability of the methods used for teacher-research (Crookes, 1992; Huberman, 1996). Because of the narrative nature of the inquiry in teacher-research, the academic researchers, specifically, complain about the lack of generalizability of this approach. Moreover, Elliott and Sarland (1995), Foster (1999) and Brown (2005) listed some of the arguments against teacher-research in the field of language teaching. The most cited ones have been; the validity of the research method; the dominance of description over analysis in many reports; teacher researchers' lack of academic research knowledge and not including theoretical literature in their accounts; the tendency in many teacher-research reports to adopt a less technical stance to the problems and to ignore the wider institutional and social practices which may influence larger groups and the inadequacy of the research training teachers receive.

With specific relation to the general quality of the research conducted by teachers, Ellis (2010) stated that owing to the methodological limitations in teacher-research, the findings are rarely of value for the field. A similar claim was also made by Block (2000) stating that the lack of generalizability leads to little impact for the field of language education.

All these arguments, however, have been rebutted by the scholars favoring teacher-research (e.g. Bartlett and Burton, 2006; Lankshear and Knobel, 2004; Borg, 2009) by suggesting some criteria to evaluate research conducted by teachers of which focus is very local and context-specific and some types of validity that may act specific to teacher-research. For instance; Anderson and Herr (1999) stated that outcome validity, process validity and democratic validity (referring to collaboration) should be checked instead of validity types specific to large-scale quantitative studies.

2.4. Studies on Teacher-Research

Studies conducted in the field of teacher research can be discussed under four categories; (1) *studies conducted with the purpose of investigating teachers' conceptions of research* (Akyel, 1999; Everton, Galton and Pell, 2000; Ratcliffe et al., 2004; Edwards, 2005; Borg, 2006; Borg, 2007; Yeşilyurt and Demiröz, 2008; Demircioğlu, 2008; Borg, 2009; Moore, 2011; Maharaj-Sharma, 2011) , (2) *studies giving advice to teachers on how to do research* (Nunan, 1989; Allwright and Bailey, 1991; Freeman, 1998; Burns, 1999; James, 2001; Brown and Rodgers, 2002; Lankshear and Knobel;2004; Roth, 2007); (3) *studies investigating the role of being teacher-researcher on professional development* (Akyel, 2000; Benton and Wasko, 2000; Özdemir, 2001; Macaro and Mutton, 2002; Stremmel, 2002; Atay, 2006; Atay, 2008; Roberts, Crawford and Hickman, 2010; Korucu, 2011; Ross and Bruce, 2012; Gao and Chow, 2011) (4) *studies investigating the effect of conducting teacher-research within structured programs such as BA/MA TESOL programs on teachers' perceptions* (Atay, 2008; Borg, 2009; Edwards and Willis, 2005; Davis, Kiely and Askham, 2004; Reis-Jorge, 2007; Wyatt, 2010; Yaylı, 2012).

2.4.1. Studies Conducted with the Purpose of Investigating Teachers' Conceptions of Research

2.4.1.1.Studies in L1 Context

Everton, Galton and Pell (2000) analyzed the findings of a Teacher Training Agency questionnaire, designed to investigate teachers' conceptions of research and the value they attributed to it. 302 teachers, who are mostly principles with different subject areas, participated in the study. The results showed that qualified teachers gave more consideration to research than inexperienced teachers. Additionally, when the teachers were asked to state the most reliable source to gain information about educational research, INSET courses (80%), official publication (70%) and accredited courses (75%) were reported to be relied on most. The participating teachers were also asked to state the research projects or/and researchers that influenced them. Out of 302, 221 teachers cited 523 research topics; aspects of learning, management and leadership were the most common topics. Concerning their research priorities, they were asked to make a list. Increasing motivation and effective teaching methods were mentioned by most of the teachers. Finally, teachers were asked to rate the value they would assign to the educational research. The results revealed that, experienced teachers who are not principles were more likely to be involved in research and these teachers valued educational research more compared to administrators and the inexperienced teachers. However, it is stated that most of the experienced teachers completed their postgraduate studies. The researcher concludes that it is significant for teachers to be given opportunities for further professional study alongside those who are conducting research.

Ratcliffe et al. (2004), investigated the science teachers' views of research through interviews with 60 science teachers. They found that the participants had limited knowledge about the process of research. In the same study, the possible effects of research on teachers'

practice were also explored and results found that teachers are influenced indirectly through curricula and materials instead of through reading or doing research.

In another study, Demircioğlu (2008) examined the attitudes of student teachers in social studies towards an educational research assignment in an educational research methods course. Data came from a questionnaire containing open-ended questions and an interview. 74 pre-service teachers answered the questionnaire; 20 of them were randomly chosen for interview. The results showed that they felt that they would use their research skills that they gained through the assigned research project, to detect problems that occurred in their teaching, prepare relevant data-collection instruments and read research papers analytically. Moreover, student teachers thought that this kind of small-scale research project should be conducted as part of the teacher education process, because it is necessary for pre-service teachers to carry out educational research in order to recognize and solve their future teaching problems, and learn how to examine the results of educational research.

Maharaj-Sharma (2011) reported the views of 25 secondary school science teachers regarding their understandings of classroom research and their willingness to be actively engaged in classroom research in Trinidad and Tobago. The results of in-depth analysis through interviews with five teachers revealed that teachers were willing to be engaged in research due to the feeling that findings provide insights and new knowledge in their profession. In relation to the challenges they might have faced, they stated that they needed to be provided with funding, support, revised workloads and increased staffing at schools in order to be able to be involved in research.

2.4.1.2. Studies in EFL Context

In her study, Akyel (1999), investigated the attitudes of 31 Turkish EFL teachers toward their teaching career and professional development through semi-structured interviews. The results of the study revealed that among the 31 participating teachers only six teachers were

subscribers to educational journals. The remaining 25 teachers said that they were too overloaded to have much time to either reading research articles or conducting their own research. Twelve teachers reported that they attended workshops and seminars and seven teachers said that they enjoyed learning from colleagues and systematic self-study. When the teachers were asked to state their concepts of teacher as researcher, the results showed that 21 of them felt that exchanging ideas and sharing experiences would increase their reflection on their practice. They added that this concept implies that systematic self-study means learning from each other.

In his book, Edwards (2005), which is compiled of 18 examples of classroom based research conducted by language teachers in their classrooms who are also MA students, asked the teacher researchers to indicate their views regarding doing teacher-research. Most of the teachers defined teacher-research as 'something involving data, that can be analyzed in order to observe how something behaves, to discover something new, to provide answers to questions, or a structured plan of action to solve problems'. The author also asked teacher-researchers to suggest some tips to aid in investigating their teaching contexts. Some of these tips were; keeping it small and simple, keeping it relevant to context, reading, writing, discussing, talking to learners. The teachers, on the other hand, complained about the lack of time to do research. They stated that, transcribing data, doing analysis, reading, and writing a report requires extended time. One of the teachers said that 'my job calls for me to teach, and offers no compensation or time for research'. In the rest of the book, Edwards questions this issue and asks if it is too time-consuming, why some teachers do it. The following excerpt of one of the teacher researchers gives the answer:

> '… what I've learned; satisfaction at the depth of understanding and clarity of articulation I've achieved; confidence that I can approach professional challenges in a principled way and eventually overcome them; awareness about what I'm doing; a deeper appreciation for and more critical eye when reading other people's research'

Borg (2006), in one of his studies, investigated teacher's conceptions of research and their perceptions of the institutional research culture. The questionnaire was administered to teachers at a Freshman English program at a university in Turkey in June of 2005. Fifty teachers responded to the questionnaire in which they were asked to state what activities constitute research and state opinions about the characteristics of research. The results demonstrated that most of the teachers (90%) perceived research as an investigation conducted by university lecturers which were then analyzed statistically. Teachers' views also reflected a conception of research where objectivity, hypothesis testing, and the manipulation of variables are fundamental concerns. Other important results that should be noted were: teachers thought that they are given sufficient support and encouraged by the administration; however, due to overloaded schedules (77%) they could hardly find time to be engaged in and read research. Finally, participating teachers reported that not learning practical ideas for classroom practice from published research is another reason for not getting involved in research.

In another study, Borg (2007) explored 44 EFL teachers' conceptions of research in Switzerland. Data came from the same questionnaire used in Borg (2006). The results revealed very similar findings to the previous study. The majority of participating teachers believed that research should be conducted by academicians with some statistical analysis to get results. The most commonly mentioned conceptions of participants about research were; its objectivity, hypothesis testing, and the manipulation of variables. Other significant results were related to their ideas about institutional culture concerning research. Even though they stated doing research (60%) themselves and having had access to published research (59%), they also claimed that research is not an important part of their job (36%). Finally when the participants who stated not doing or not reading research were asked to give reasons, not having time, not knowing research methods and their belief that teaching and researching are different jobs were the most mentioned ones.

Borg (2009), in a more recent study investigated the conceptions of research held by 505 EFL teachers from 13 countries around the world. The results of the study showed that teachers read and do research from moderate to low levels. They indicated not having enough time and knowledge, not being able to access materials and hardly being able to understand published research as key reasons for not being involved in research. Teachers who were engaged in research reported being motivated by practical and professional concerns rather than external factors such as employers or promotion. Most of these teachers had more than 20 years of experience in teaching.

In addition to the previous studies, Moore (2011) probed EFL teachers' conceptions of and engagement with research in Cambodia. Specifically, he focused on the opinions, attitudes and beliefs of Cambodians who teach English at tertiary-level institutions. The same questionnaire reported in Borg (2006, 2009) was administered in the study. Cambodian English teachers believed that research is conducted by university lecturers and after collecting large amount of data, a statistical analysis was done. They rated the usefulness of research to teachers (95%), and the collection of large amounts of data from a number of participants (85%) as the most important criteria of research. In relation to the research culture in their institutions, they stated positive results such as, being supported by the administration and teachers doing research themselves. Teachers who stated doing research (51%) thought that it is good for their professional development and helpful to find better ways in teaching.

With the purpose of investigating teachers' conceptions of research, Yeşilyurt and Demiröz (2008) investigated the views of high school EFL teachers on the role of research and the use of research results in the process of teaching English. Data were collected through a questionnaire specifically developed for the study. When the results of the questionnaire were analyzed, it was determined that English teachers consider research and its results important;

however, they partially follow the research publications. The results also showed that they tried to apply the findings of research in their classrooms and conduct research themselves.

When the studies conducted with the purpose of investigating teachers' conceptions of research were reviewed, it was clear that teachers were willing to be engaged in research. However, they believe that research should be conducted by academicians at universities. They were not also aware of the importance of research as a component of their profession and an integral part of their professional development. Moreover, it was obvious that there are many factors hindering teachers' engagement in and with research such as, not having enough time, not having research as a part of their workload, not being able to understand the published research, and not having adequate knowledge to conduct their own research in their own context. Therefore, they needed to be supported and encouraged to overcome these factors.

2.4.2. Studies Giving Advice to Teachers on How to do Research

Another strand of research dealing with teacher-research engagement is based on advice to teachers on how to do research (Nunan, 1989; Allwright and Bailey, 1991; Freeman, 1998; Burns, 1999; James, 2001; Brown and Rodgers, 2002; Lankshear and Knobel, 2004; Roth, 2007).

2.4.2.1. Studies in L1 Context

Allwright and Bailey (1991), in their book, explain classroom research, its principles and procedures. They also give advice to teachers about the details of conducting classroom research, more specifically, how to collect data, how to analyze and how to report.

Parallel with the contents of Allwright and Bailey's (1991) work, Burns (1999) also provided details about action research, its theoretical background, importance, role and ways of conducting with the purpose of raising teachers' awareness about being teacher-researchers.

Additionally, Rodgers and Brown (2002) in their comprehensive book introduce classroom research, ways of compiling data and analyzing them, and interpreting the results.

Some details about the significance of classroom research and how to reflect on the findings are also provided in the book.

Lankshear and Knobel (2004), in their work, identify key requirements for teacher-researchers to conduct good quality teacher research. First, they start with sound background information regarding the importance and role of teacher research. They also explain teacher research with specific relation to quantitative and qualitative approaches and how to make it public.

Finally, Roth (2007) shares his own experiences of doing teacher-research while being a high school teacher and department head. He explains six different research studies that he had conducted individually or in collaboration with other colleagues to explain; possible topics to study, ethical issues, how to access resources, how to collect data, interpret and write a report.

2.4.2.2. Studies in EFL Context

Nunan (1989) in his work, introduced EFL teachers to a wide range of research methods, data collection techniques, and analysis procedures appropriate to classroom research. Moreover, language teachers were also provided with theoretical research knowledge and skills to carry out research individually or collaboratively, steps in planning, conducting, evaluating and reporting research.

Likewise, Freeman (1998) starting with the idea of 'knowing *how* things work in the classroom is not the same as knowing that they *will* work', gives information regarding how to conduct teacher-research including data collection methods, framing an inquiry and going public with specific attention to foreign language teachers' problems and their classrooms.

Finally, James (2001), in his book, provided tasks for in-service language teacher education and development. The major focus of his book was to provide language teachers an 'accessible and flexible framework' to investigate topics in their classrooms and schools for their professional development.

This review shows that, in the field of teacher education, there have been many attempts to support teachers with several guidelines and a necessary knowledge base to become teacher-researchers and help them investigate their own classrooms either individually or in collaboration with others.

2.4.3. Studies Investigating the Role of Being Teacher-researcher on Professional Development

The third category of teacher research studies involved the studies conducted with the aim of investigating the role of being a teacher-researcher on professional development (Akyel, 2000; Benton and Wasko, 2000; Özdemir, 2001; Macaro and Mutton, 2002; Stremmel, 2002; Borg, 2003; Atay, 2006; Atay, 2007; Roberts, Crawford and Hickman, 2010; Korucu, 2011; Ross and Bruce, 2012; Gao and Kwan Chow, 2012).

2.4.3.1. Studies in L1 Context

Benton and Wasko (2000) conducted an action research study to investigate what teachers think about the influences of action research on their teaching practices and student achievement. Together, a university and eight schools conducted the study during the 1997-1998 school year collaboratively. The teachers in these schools were asked to state their opinions whether their involvement with the action research projects had a positive impact on their teaching practices. 70 teachers out of 87 responded that their teaching practices had been affected positively by being engaged in collaborative action research. They also stated that the research project helped them develop new strengths in teaching and add to their existing methods. The analysis of all eight research projects also revealed varying degrees of gains in specified areas of student achievement. Finally, some teachers were asked about their opinions in relation to their professional development that resulted from their involvement as researchers in the research projects. Results showed that action research gave teachers the opportunity to

examine the achievement of their students through specific data, and also to examine their own teaching practices and strategies that affect that achievement.

Stremmel (2002), in his article, discusses the significant role of teacher-research on the professional development of practitioners. The main idea of his informative study was based on the view that when teachers are engaged in research activities in collaboration with other teachers or university researchers in which they address mutual concerns and problems, they develop more affluent understanding of their teaching, their students and themselves. They also add to their knowledge base.

Bartlett and Burton (2006), in their article, reported how a group of primary school teachers from nine different schools researched their classroom teaching. Each of the teachers identified an area of research in their classroom that they wanted to evaluate, such as the benefits of pupils working in teams, or the creation of role-play areas. They decided on what kind of data they needed to collect and how to collect it. They held meetings as a group and also met individually with a mentor several times to share experiences and to discuss progress. After finishing their research projects they presented findings and their analysis to each other. Their evidence and conclusions were also presented to other teachers at their school and sometimes at other schools. The article considers whether, in the light of critiques of other similar teacher-research projects, these data gathering and analytical activities might have been reasonably described as research. In the end of the study it was concluded by suggesting that being engaged in research constitutes an effective form of professional learning and development.

Roberts, Crawford and Hickman (2010) conducted research to investigate the concept of teacher-research as an important way of professional development through the evaluation of a 3-year Teaching Program. For the purpose of the study, teacher-research projects which were carried out during this program were used as a data source and analyzed to explore the extent of teacher-researchers' professional development by being engaged in research under the

supervision of experts in research. The results revealed increased confidence, professional growth, strong sense of community, collaborative engagement and continuous reflectivity for the participated teachers.

Finally, Ross and Bruce (2012) evaluated the impact of collaborative action research on teachers' professional development. The researchers aimed to extend the findings of qualitative research in the field by reporting two related quantitative research studies. In the first study 80 elementary school teachers participated, in the other one 105 mathematics teachers responded to the questionnaires. In the end of these studies, participating teachers' were observed to have significantly improved beliefs about their professional abilities. Moreover, as a result of conducting their own research, their data collection and analysis skills were improved. The results also showed that engagement in action research contributed to their beliefs regarding their ability to engage students in the activities.

2.4.3.2. Studies in EFL Context

Akyel (2000) investigated the collaborative efforts of two EFL teachers in order to help solve the problems in their classroom contexts through the aid of a supervisor who is an expert in research. The researcher also aimed to help teachers develop professionally and investigate the change in these teachers' practices and attitudes toward teaching as a result of being involved in collaborative problem-solving process. Data came from videotaped classroom instruction, stimulated recall, field-notes, and participating teachers' journals and self-reports. The results of the study showed that participants developed strategies for their own professional development through engaging in collaborative processes of problem-solving.

Özdemir (2001) conducted a study focusing on the effectiveness of action research as a means of increasing professional development of language teachers in the English language school of a university. The study investigated the improvements and changes that action research leads to in teachers' teaching practices and ideas, beliefs, perceptions and emotions.

The researcher conducted an action research study in her class. Qualitative data came from an action research journal, which was kept by the researcher, an observation checklist filled in by an observer and action research reports written by eight teachers who also conducted action research in their own classes. The results of the study show that engagement in research spurred changes and improvement in teachers' instruction. Additionally, it also led to change in teachers' ideas, beliefs, perceptions and emotions thus contributing to the professional development of teachers.

In their article, Macaro and Mutton (2002), reported on a small-scale study in which they observed three qualified language teachers' development by involving them in the research process as 'co-researchers' for a two-year project. Data were collected through observations of these teachers' lessons and interviews with them. They were actively involved in the data analysis process by reacting to data gathered by the researchers. At the end of the research process, Macaro and Mutton indicated, owing to the fact that teachers were engaged in a continuous reflective process in collaboration with the researchers, they developed professionally regarding discipline, planning and finding solutions to the problems that they encountered throughout their practice.

Atay (2006) conducted an explorative case study shedding light into the professional development of pre- and in-service teachers through collaborative research engagement in an EFL setting. Ten pre-service and ten in-service teachers participated in the study. First they were provided with relevant theoretical knowledge on research, and then collaborated and conducted their research in in-service teachers' classes. The results of the study demonstrated that engagement in collaborative research helped both in-service and pre-service teachers observe, evaluate, and reflect on their teaching practices in a systematic manner.

In another study, Atay (2008) reports on an INSET program in which Turkish EFL teachers were delivered related theoretical knowledge about research engagement and, in addition,

provided them with support for conducting research, reflection, and collaboration. Results of the study showed that although teachers faced some challenges during research engagement, the program which includes both theoretical knowledge and hands-on experience affected their professional development positively. More specifically, teachers' awareness of their own instruction and learners' needs increased. Those teachers with experience regained a new eagerness in teaching and they became more reflective regarding their classroom practices.

The role of research on EFL teachers' professional development was also investigated by Korucu (2011) focusing on the process of a teacher's research engagement and the changes it leads to in the teacher's instruction. The specific aim was to investigate the improvement in content knowledge, beliefs and attitudes and teaching practices of teachers. Qualitative data came from the reflection journal of the participating teacher and the interviews conducted by with the participant throughout the research engagement process. Quantitative data were collected from the quiz and exam results of the students. The results of the study showed that action research contributed to the professional development of an English teacher regarding content knowledge. It also caused some changes in beliefs and attitudes and led to improvements in teaching practices.

Finally, Gao and Kwan Chow (2012) made an enquiry into the research engagement of 33 primary school English language teachers in China. Questionnaire data and teachers' interview transcripts demonstrated results of the research engagement experiences of Chinese primary school teachers. The study revealed that the participants had numerous challenges regarding contextual constraints and inadequacy of research knowledge as teacher researchers.

The studies, which investigated the effects of language teachers' being engaged in research on their professional development can also be categorized as; (a) studies reporting teachers' engagement in research by themselves (Korucu, 2011; Gao and Kwan Chow, 2012), (b) studies reporting on teachers' collaborative research engagement with colleagues (Akyel,

2000; Stremmel, 2002); (c) studies reporting teachers' collaboration with an expert in research (Akyel, 2000; Macaro and Mutton, 2002; Atay, 2008; Bartlett and Burton, 2006).

The findings of the studies discussed in the previous section indicate that research engagement resulted in professional development of teachers who were involved in research either as an individual or collaborative task. It is also clear that teachers' lack of knowledge and confidence can be overcome by the help of an expert in research.

2.4.4. Studies investigated the effect of conducting teacher-research within structured programs on teachers' perceptions

The final strand of research in the field of teacher-research investigates the possible effects of conducting teacher-research within structured programs such as BA/MA TESOL programs on teachers' perceptions (Atay, 2008; Borg, 2009; Edwards and Willis, 2005; Kiely et al., 2004; Reis-Jorge, 2007; Wyatt, 2010; Yaylı, 2012).

The first study was conducted by Atay (2008) along with the participation of 18 EFL teachers in a university preparatory program. Teachers attended a six-week teacher-research program every afternoon after their classes for four hours. Teachers were instructed in the theoretical knowledge of ELT for the first two weeks. In the next two-week period, they received instruction in research methodology, classroom research, and how to do research. In the last two-week period of the program, they were requested to prepare a research proposal on a problem they face in their teaching practice and were expected to submit their research proposals. They were then required to carry out their research individually. The mentor acted as facilitator for the participants in the event that they were to face any challenges through e-mail correspondence. At the end of the sixth week, only six teachers submitted their reports. Borg (2013) explained this result by criticizing the lack of facilitating factors such as no reduction from teaching and the unrealistic time period (two weeks) to conduct the necessary

research. Additionally, the discussion stating that the benefits of the program for the professional development of the participants made by Atay (2008) was also found unrealistic.

The second study reported the results of a collaboration between the University of Leeds and Ministry of Education in Oman challenged with a BA TESOL project (Borg, 2009). In the project 900 Omani EFL teachers participated. The rationale of the project was explained that teachers are more willing to do research when they are supported in a structured program in which they can learn and get feedback. The project consisted of four phases each of which lasted for six months. In the first phase, teachers learned the basics of educational research and wrote the research proposal. In the second phase, they collected data and completed a pilot study. In the next phase, they analyzed the data and completed all necessary fieldwork. Finally, an analysis and research report were written. To facilitate the process, teachers were released from work for one week after the first phase. In the following phases, they were given one day off to work on the projects. The results of the study showed that, teachers stated they learned how to do good quality research, evaluate research, help others do research and become enthusiastic about doing research.

Edwards and Willis (2005), in their book compiled the research conducted by teachers with the aim of exploring different aspects of task-based learning. Eighteen English language teachers contributed with their classroom-based investigations. It is important to note that all contributors were MA TESOL students in different universities. At the end of their projects, the authors asked them their ideas and perceptions about the process. They listed some advices for teachers who want to investigate their classroom based problems with teacher-research: (a) the scope should be limited and the aim should be simple; (b) the focus should be relevant, to both teachers and learners, (c) the aim should be clear, (d) teachers should discuss what they are doing with their colleagues and, talk about their ideas especially the ones who have already done some classroom research (e) any previous teacher-research reports should be read, (f) a

diary or a journal in which the observations and feelings are written should be kept during the process, (g) learners and their opinions should be listened to and included as data, (h) teachers should be honest, (i) any seeking for the right answer or solution should not be the aim, and lastly (j) the findings should be publicized. The participants also complained about some factors that posed a negative effect. One of these factors was limited time. In fact, the benefits of research engagement they stated far outnumbered the obstacles that were necessary to cope with. An increased sense of professionalism, respect for other researchers, appreciating students' abilities, the enjoyment of learning, increased motivation , efficacy in doing something to solve problems, gaining insight into own instruction, the feeling of achievement, and enjoyment of teaching were the most commonly stated advantages.

Davis, Kiely and Askham. (2004) conducted another project focusing on the implementation of a series of innovations in a research methods course in a Masters in TESOL program. Within this course 30 participants were engaged in research by reading and writing reflection papers criticizing published research. Participants were also requested to submit a research proposal requiring the investigation of what kinds of difficulties encountered and present the research design. The evaluation reports showed that all participating MA students had a positive outlook toward the course. The only challenge they faced was to access some of the reading materials and published studies in the libraries. Moreover, the preparation stage of the presentation and the feedback received after doing it were found to be more valuable than having done it.

In another study, Reis-Jorge (2007) reported a case study, shedding light on the effect of formal instruction and how hands-on experience can change teachers' beliefs of teacher-research and of themselves as future teacher-researchers. A group of nine teachers attending the in-service in TEFL program in a higher education institution in Britain participated in the study. Within the program, the study was mainly conducted in a Research Methods course. The

objectives of the course were to increase interest for classroom-based research and to inform the participants regarding the necessary research skills and knowledge in order to plan and conduct a research. The course included three stages; reading, formal instruction, and engagement. In the reading stage, participants read articles to review the literature about the topics instructed and in the formal instruction stage necessary knowledge regarding research methods was provided. The participants' conceptions of teacher research were interpreted in terms of functional and structural views. That is, at the beginning of the course, teachers tended to define teacher-research only by referring to its aims (i.e., assessment and problem-solving). However, as the course progressed, the participants started to have a dual perspective of teacher-research. Nearly all of them defined it in terms of both aims and the process which leads to discovery and professional development. At the end of the course, the definition turned out to be: "…an enquiring practice based on information obtained in a more or less informal way - orally and through direct observation - as later (after the dissertation) conceived as small scale enquiry carried out by classroom practitioners in a more systematic way on the basis of evidence gathered by means of data collection." The researcher stated that by being engaged in research, teachers' feelings of self-discovery and awareness increased, they started to be more critical of themselves as teachers and towards others. Results also showed that they would adopt a reflective and researcher stance in their future career. However, in their views it is easy to see that they were engaged in research since it is a requirement of the academic setting in which they were enrolled rather than professional development. The participants listed the reasons for the difficulty in being engaged in research out of this structured program as follows; heavy workload, class size, curricular and extracurricular demands and lack of resources, in addition to lack of collaboration from peers and administrators. As a result, the researcher suggested action research or exploratory teaching projects as the alternative to academic classroom-based research due to practical reasons.

A very recent study which was conducted in the 'Materials Development and Evaluation' course in a Master's in TESOL program in Turkey aimed to investigate both the research experience of four teachers and their collaboration with a university professor supervisor (Yaylı, 2012). The results showed that the participants mostly had difficulty during qualitative data analysis and interpretation of the data. After the research practice, they stated that they experienced difficulties in doing research and learned how to cope with them by making use of previous research and the assistance of the university professor.

Despite the accepted value and advantages of teacher-research in the field of language teaching as discussed previously, and strong emphasis on the significance of teachers' being research engaged, the fact whether or not teachers have the necessary knowledge, either theoretical or practical, has not received much focus in the field. As stated by Borg (2006), most of the teacher-research has been conducted within teacher education programs, such as undergraduate programs, graduate programs (e.g, Masters of Art in TEFL) or certification courses which are all formal contexts. If it is required to make teacher-research an essential component of teaching practice, then it should be carried out of the borders of such academic settings. That is to say, teachers' transferring their research knowledge into their research practice is of vital importance to improve their teaching skills. Therefore, the courses in these formal contexts such as Masters of Art programs in TEFL, should aim to create a link between theoretical research knowledge and implementation of this knowledge into practice in the teaching environments of teachers who attend these programs.

The courses in these formal settings can provide the theoretical knowledge related to research and the teachers attending can be guided when practicing research. However, in order to create a link between their research knowledge and practice throughout their teaching career, they need to be motivated and efficacious to do research.

2.5.Teacher Research and Teacher Efficacy

Teacher efficacy is a concept referring to a teacher's feelings about his/her capability in performing the actions in a way leading to achievement (Bandura, 1977; Woolfolk Hoy, 1990). In the field of language teaching, there have been many studies conducted with the aim of investigating the role of teachers' efficacy in language teaching (e.g., Pajares, 1996; Chagon, 2005; Tangen, 2007; Lee, 2009; Swanson,2010; Jie-ying, 2011; Guven and Cakir, 2012). As shared features of all these studies, the factors affecting teachers' efficacy in a language teaching context and the possible outcomes of teachers' having high or low efficacy have been investigated.

In addition to the above-mentioned studies, there is another strand of research aiming at investigating the mutual effect of being engaged in teacher research and teacher efficacy (Cabaroğlu, 2014; Cooper, 2009; Henson, 2001; Liu, 2009; Seider and Lemma, 2006). Due to the active and collaborative nature of teacher-research, it has been widely suggested that, this activity not only causes instructional effectiveness, it may also impact teacher efficacy positively. In other words, teacher research is likely to facilitate teachers' perceptions of self-efficacy, collaboration, positive student-teacher interactions, and professional development.

Cabaroğlu (2014) in her recent study explored the effect of research engagement on English language pre-service teachers' self-efficacy beliefs in a 14-week research course. The course was designed to help pre-service language teachers understand their future teaching contexts and improve their teaching abilities by the help of research engagement as well as improving their knowledge base. In order to investigate the changes in participating pre-service teachers' self-efficacy beliefs, data were gathered through self-efficacy scales, reflective journals and a course evaluation form. The results showed that the participants' teaching efficacies, self-awareness, problem-solving skills improved.

Cooper (2009), in her dissertation, examined the effect of doing action research on teachers' teaching efficacy. In the study, four high school math teachers and five fifth grade content teachers participated. The high school math teachers conducted similar research studies and they sought answers for their own contextual problems in collaboration with other teachers. The fifth grade teachers investigated one problem upon which was commonly agreed in a collaborative way. The analysis of both quantitative and qualitative data showed that participation in action research influenced teacher efficacy mostly in teaching positively. Moreover, being actively engaged in teacher-research increased participants' willingness to continue as a teacher-researcher. Despite their concerns about the extra time required to complete an action research study, nearly all participants stated having positive feelings about their engagement in action research process.

Henson (2001) in his study investigated the impact of a year-long teacher research project on teacher efficacy and autonomy in an alternative education school. Results indicated progress in both general and personal teaching efficacies of teachers. Additionally, collaboration among teachers was found to be reliably related to general teaching efficacy of the participating teachers.

Furthermore, Liu (2009) in his study gathered data from sixty-eight early childhood pre-service teachers who were enrolled in Practicum II –Action Research in years 2006 and 2009. A pre- and a post Action Research and Teaching Self-Efficacy surveys were administered and findings showed that there is a correlation between research-based teaching and high teaching self-efficacy, and that action research supplements teacher candidates' self-efficacy growth.

Seider and Lemma (2004) conducted a study to investigate the perceived effects of research engagement on MA students' efficacy feelings. They gathered data through questionnaires and interviews with teachers who did action research as a requirement of their Master's program during the years 1992 through 2001. Results demonstrated that teachers'

sense of professional efficacy improved and action research had immediate benefits for student learning. Even though it was found to be a challenging process, teachers valued conducting action research for professional development.

As can be seen in the previous discussion, teacher efficacy in language teaching and the relation between doing teacher-research and efficacy have been investigated in the field. However, there has been no attempt to investigate teachers' efficacy in doing research. One of the objectives of the present study is to fill this gap in the literature.

2.6.Teacher Research and Motivation

Motivation has been identified as "some kind of internal drive which pushes someone to do things in order to achieve something" (Harmer, 2001). In addition, it is used to define "the success or the failure of any complex task" (Brown, 1994). Three major theories have been proposed to explain motivation and productivity upon which teacher motivation is based (Johnson, 1986). According to *expectancy theory*, expecting a reward such a bonus or a promotion for which it is worth working increases the probability of a teacher to work hard. Additionally, *equity theory* claims that if there is unfair treatment of the teachers' efforts and achievements, teachers can be displeased and lose their motivation. Finally, *job enrichment theory* urges that teachers become more productive when they are provided with various and challenging tasks. All these three theories show the importance of external factors in becoming motivated teachers, which has been accepted as one of the sources of teacher motivation. On the other hand, the role of intrinsic motivation, which specifically increases with the achievement of students, despite extrinsic elements, should not be ignored (Suslu, 2001). As Latham (1998) emphasizes, intrinsic factors are more important to motivate a teacher. In other words, intrinsic motivation is about being engaged in an activity because of the joy and interest in the activity, whereas extrinsic motivation causes engagement in the activity due to external factors (Reeve, 1995; Sansone & Harackiewicz, 2000).

By being accepted as one of the fundamental reasons of success in every field, motivation of teachers has also been widely investigated (e.g., Wilby, 1989; Coladarci, 1992; Pennington, 1992; Nunan and Lamb, 1996; Gherali-Roussos, 2003; Suslu, 2006; Praver and Oga-Baldvin, 2008; Bernaus, Wilson and Gardner, 2009; Falaut, 2010). These studies found that major factors affecting teachers' motivation negatively are; administrative problems, classroom management, stress, low salary rates, lack of materials and overloaded time schedules. Additionally, teachers were found to be motivated when they actively take part in the decision-making processes of school goals, have autonomy, good working conditions and are valued as professionals.

Despite being very limited, another area of literature is related to the factors motivating teachers to be research engaged. Professional development as an obvious result of teacher-research engagement has been accepted as a significant factor (e.g. Akyel; 1999; Borg, 2003, 2006, 2009; Atay, 2008). Therefore, the fact that there are specific factors motivating teachers to be involved in such professional development is also valuable for the field. However, not much attention has been paid to it untill now.

Meerah, Johar and Ahmad (2001) investigated factors that de/motivate teachers to conduct research. Results showed that having research knowledge and skills do not necessarily make teachers research engaged. `Bureaucratic constraints', having little time or energy left for professional development due to overloaded schedules and the amount of daily preparations at school, the lack of administrative support and extrinsic rewards suggested are among the demotivating factors to be engaged in research. On the contrary, teachers who have positive attitudes and who are self-reflective on their teaching practice were found to be better involved in research. Participants were also found to be aware of the importance of research to improve teaching. They stated that they feel satisfied and professionally developed when they share or report their findings to their colleagues.

In another study, Hardre et al. (2011) investigated personal, contextual, and motivational factors that influence faculty research engagement across disciplines. 781 faculty members from four academic departments of 28 U.S. research-extensive universities participated in the study. Data were collected through anonymous online questionnaires. Results of the study showed that intrinsic motivation positively correlated with value for research, research effort, and self-efficacy. However, teaching load was negatively related to intrinsic motivation for research. On the other hand, extrinsic motivation was found to be negatively related to teaching load, service provided and advisorship.

As it is clear in the above discussion, teacher motivation has been investigated in specific relation to language teaching. However, teachers' motivation to be engaged in/with research is of least importance.

2.7.Teacher-research and Reflective Teaching

The conceptual change as a result of the shift from behaviorism to constructivism in teacher education has redefined many concepts such as teacher development and position of teachers. Specifically, teacher development started to consider the existing knowledge, experience, opinions and values of teachers (Bell and Gilbert, 1996). As another implication of constructivism, "reflection on experience" was claimed to lead to change in teaching. These changes reformulated the notion of reflective teaching (Roberts, 1996).

Reflectivity has been widely addressed in the literature as one of the most significant tasks in teaching. Dewey who is believed to be the originator of 'reflection' considered it to be a way of problem solving in early 1900s (Hatton and Smith, 1995). To Dewey, reflection contributes to professional development by reframing problems, which results in a variety of possible solutions. He further suggests that attitudes like open-mindedness (i.e desire to listen to other view points), responsibility (i.e. considering the results of actions) and whole-heartedness (i.e. analyzing beliefs of oneself with the purpose of learning) are crucial for the

development of reflection. Dewey's concept of reflection was further developed by other researchers (e.g. Van Mannen, 1977; Schön, 1983&1987; Wallace, 1991; Zeichner and Liston, 1996; Johnston and Badley, 1996).

Van Mannen (1977) explained reflection as "a form of human experience that distances itself from situations to consider the meanings in these experiences". He proposed three levels of reflection; technical reflection, practical reflection and critical reflection.

Schön explained that continuous reflection on teaching and interaction with students help teachers improve their reflectivity. He recommended that through the help of these reflections, teachers start to understand their contexts. According to Schön, reflection occurs in two different time periods: reflection-on-action (i.e. occurs before and after teaching), reflection-in-action (i.e. occurs when a teacher plans her teaching).

Wallace (1991), being affected by Schön's ideas about reflective practitioner suggested a model which aimed to propose a rationale for good teacher education. In his model, he tried to create a link between theory and practice and supported continuous professional development. Furthermore, Zeichner and Liston (1996) defined reflection by comparing technical teaching with reflective teaching. Accordingly, reflective teaching involves critical examinations of experiences and an understanding of the results of teaching practice. Johnston and Badley (1996, p. 4) similarly defined reflective practice as the 'acquisition of a critical stance or attitude towards one's own practice and that of one's peers'.

The common agreement of all these definitions is on the significance of being critical through reflection. The features of a critical reflection were listed as asking clear and accurate questions and problems, collecting and evaluating related information, reaching at well-reasoned conclusions and solutions by assessing them, being open-minded to search for alternative perspectives, implications, practical consequences, and being in communication to find solutions to problems (Paul and Elder, 2006). Furthermore, it is generally accepted that

critical reflection is one of the major elements of professional development and way to improve one's own practice. On the contrary to the literature fore fronting the significance and necessity of having reflective thinking, the difficulty of mastering this higher-order skill was also widely discussed. That is to say, reflective thinking is a complex activity that requires time and explicit practice through activities, which are embedded in the educational curriculum. In other words, as Gelder (2010) argued it is a 'lifelong journey than something that can be picked up in a few weeks' time'.

There have been plenty of research studies conducted to investigate reflectivity in the field of teacher education (e.g. Adler, 1991; Amobi, 2005; Brooker, 1993; Calderhead and Gates, 1993; Canning, 1991; Colton and sparks-Langer, 1991; Hatton and Smith, 1995; Gay and Kirkland, 2003; Smith, 1989; Zeichner and Liston, 1995). As defined by Hatton and Smith (1995) there have also been studies exploring the effects of the following strategies to facilitate reflectivity in teacher education; (1) Action research projects (Carr & Kemmis, 1986; Zeichner, 1986; Ross, 1989; Pugach, 1990; Sparks-Langer & Colton, 1991; Dinkelman, 2003; Chant, Heafner & Bennett, 2004; Leitch & Day, 2006; Zeichner, 2006; Carlo, Hinkhouse and Isbell, 2010), (2) Case studies and ethnographic studies of students, teachers, classrooms, and schools (Ross, 1989; Sparkes, 1991; Stoiber, 1990), (3) Microteaching and other supervised practicum experiences (Cruikshank, 1985; Sparks-Langer & Colton, 1991; Zeichner, 1986), (4) Structured curriculum tasks (Ben-Peretz, 1984; Beyer, 1984; Smith, 1991). In addition to these strategies, writing tasks such as keeping journals and diaries (e.g. Surbeck, E., Han, E. P. & Moyer, j. E.,1991; Ballantyne, R. & Packer, J., 1995; Bain, J. D., Ballantyne, R., Packer, J. & Mills, C., 2006) and keeping portfolios (Anderson & Demulle, 1998; Antonek, McCormick & Donato,1997; Guiliano, 1997; Koçoğlu, 2006) have also been suggested as methods to promote reflectivity in teaching.

Among the above strategies, conducting research to solve some contextual problems and its effects on teaching reflectivity has received attention in the field (Carr & Kemmis,1986; Ross, 1989; Ciriello, Valli and Taylor, 1991; Dinkelman, 2003; Chant, Heafner & Bennett, 2004; Leitch & Day, 2006; Zeichner, 2006; Carlo, Hinkhouse and Isbell, 2010; Hagevik, Aydeniz & Rowell, 2012). It is important to note that even though reflectivity and action research started to receive attention after the work of Dewey, the relationship between these two concepts was recognized after the Stenhouse's notion of the teacher-as-researcher (Leitch and Day, 2006). Therefore, engaging teachers in continuous exploration of their teaching is necessary for their development of reflective thought as teacher-researchers.

To begin with, Carr and Kemis (1986), in their book, indicated that a teacher, who has actively become involved in systematic examination of his/her teaching and context, plans the action, acts consciously, observes the results of action systematically, and reflects critically on the action (p. 40). They further claimed that in doing so, teachers create critical self-reflection which help them to reconstruct their practice.

Ross (1989) also stated that the ability to reframe problems and explain classroom events in an alternative way support the reflectivity of teachers. With this philosophy, Ross, investigated the impact of an action research course on elementary teacher education students' reflectivity. Students were required to conduct research projects and their projects were evaluated in terms of reflectivity. The rubric he adapted was originally developed by Kitchener (1977) and King (1977). In this seven-stage reflectivity judgment model, it is believed that in the first and second stages, students view the world as simple. In stages 3 and 4, a person is aware that there are differing viewpoints and uses personal beliefs while making decisions. During later stages, a decision is given based on the context where a specific event has happened. Ross, changed this seven-stage rubric into three-level one. In this adapted version, levels were from low description with little or no analysis to higher levels where events were

analyzed with multiple perspectives. The results of the study showed that throughout the project, students expanded their appreciation and started to give significant educational decisions. Moreover, the majority of the participants appeared to reflect in high levels. Ross concluded that engaging pre-service teachers in a research process helped them improve their abilities to be more reflective.

Ciriello, Valli and Taylor (1991) designed a teacher preparation program at Catholic University based on the idea of critical reflection. The program consisted of students' critical assignments, action research and journal writing. At the end of the program, researchers' investigated which method was mostly perceived as beneficial for reflectivity. Students' responses to the questionnaire indicated that they mostly favored action research because of the fact that they could evaluate the context and think systematically.

Furthermore, Dinkelman (2003) indicated the power of action research as a component of teacher education. He fore fronted the potential of this activity in promoting reflective practice by providing opportunities for teachers to reflect on their practice and understand their contexts. In this informative study, the researcher suggests teacher-educators adopt research as an essential part of their own professional practice to improve teacher education programs. In this sense, research is believed to be effective on reflective teaching.

In the study by Chant, Heafner and Bennett (2004), fourteen elementary education majors at the university of North Carolina volunteered to participate within the assignments related to personal theorizing (i.e. reflection) and action research. As a result of this process, data revealed three categories. In the first category, which is called defining self, participants were able to define their beliefs about teaching. The second category was labeled as defining reflection. In this category, participants could create a personal definition of reflection. Lastly, in the category of professionalism, reflectivity of participants was observed to increase as a result of research engagement which they perceived as a requirement of their profession.

Leitch and Day (2006), in their research claimed that the type of reflectivity to be employed changes according to the type of action research in which to be engaged. Technical action research allows limited reflection in and on practice because of the strict frame of this research. On the contrary, practical action research is stated to improve teachers' practice by the help of reflective processes within this type of action research as was the case in Lewin's research cycle, which included the steps of observe-reflect-plan-act-evaluate. Lastly, reflective practice in emancipatory action research is restricted with the model of planning-acting-observing-reflecting-critiquing the social contexts of teaching by engaging teachers in a process where they investigate social and educational systems.

Zeichner (2006), in his study, in which focused on reflection among the accomplishments of action research, argued that the relation between these two notions (i.e. reflection and action research) indicate the process of learning to be a teacher. He further stated that unless giving up these activities, learning continues throughout the teaching career and adds to teachers' knowledge, experience and practice.

Carlo, Hinkhouse and Isbell (2010) in their recent research aimed at teaching reflective thought through engaging two chemistry education major students into action research process. Results showed that students felt more confident in their scientific abilities, better understood the requirements of graduate school. Moreover, their engagement in such a research process led them develop reflective thought.

Finally, Hagevik, Aydeniz and Rowell (2012) examined the role of action research in stimulating critical reflective thinking. In a study with twenty pre-service teachers, data came from collaborative discussions, final written documents, presentations, and follow-up surveys. Results showed that engaging in action research improved their practice and promoted their critical reflective thinking.

On the contrary to these studies focusing on the positive effect of teachers' research engagement on their reflectivity, there is also another strand of research, which claims the difficulty of development of critical reflection in a limited time period without explicit instruction and practice. Paul at al. (1989) urge that critical thinking has to be incorporated into education systems starting from the very beginning of education life and it should be a compulsory component of content courses in schools at every level. Moreover, Halpern (1998) stated that critical thinking can be learned through explicit instruction which includes skills training regarding verbal reasoning, argument analysis, hypothesis testing, decision making and problem solving. In line with what Halpern suggests, Gelder (2010) argues that the improvement of critical reflection depends on the continuous and conscious practice.

In addition to being a controversial issue in the literature, it is also clear that most of the studies were conducted in the field of pre-service teacher education in which majors were different from language teaching. Moreover, this relationship did not receive much attention in Turkish context. Therefore, more research needs to be conducted regarding the use of teacher-research to promote in-service language teachers' reflective thought in their practice.

To conclude, as a result of repositioning the teacher as the 'researcher' with the effect of social constructivism, the gap between teachers and researchers came closer. Due to this change in the field, the importance of teachers' being researchers has been discussed extensively and its value on teachers' professionalism has been accepted. As stated by Roth (2007), there is no doubt about the fact that teachers who research their own practice are and become better practitioners. Hence, the studies conducted with the aim of investigating the impact of being a teacher-researcher have created great encouragement. However, there are some important issues to be clarified. First of all, in order to be teacher-researchers, teachers have to be knowledgeable about what research is, how it is conducted and possible implications for their teaching practice. Secondly, their awareness about the significance of research for

professional development should be raised. In addition, they need to have the necessary motivation and efficacy to practice research throughout their teaching career.

CHAPTER 3

METHODOLOGY

The purpose of this chapter is to address the methodology and the procedures that are used to carry this study by means of nine sections: (a) research questions, (b) theoretical framework, (c) research design, (d) a description of research setting, (e) a description of the participants, (f) the researcher (g) a description of the treatment, (h) a description of data collection instruments and procedure, (i) validity and reliability of data, (j) data analysis.

3.1. Research Questions

This study aims to see the possible effects of an INSET course as one of the components of an MA program in TEFL to help in-service teachers develop as teacher-researchers who can explore their own teaching practice. With this purpose in mind, the study first investigated whether there are any differences in participating EFL teachers' research knowledge, practice, motivation, efficacy and teaching reflectivity at the end of the INSET course which is designed to help them develop as teacher researchers exploring their own teaching. Finally, this study examined the participants' opinions about the contributions of INSET and other MA courses to their understanding of research and practice.

Particularly, this study addressed the following research questions to be answered:

1. Does the INSET course affect teachers' research knowledge and practice? If so, how?
2. Does the INSET course affect teachers' motivation for and efficacy in teacher research?
3. Does the INSET course affect teachers' reflectivity in relation to teaching?

4. What are the opinions of teachers about the relative contribution of the INSET and other courses to their understanding of research and implementation?

3.2. Theoretical Framework

Good teaching, traditionally, has been considered as having the adequate pedagogical and content knowledge. However, it is recently accepted to involve more than these technical skills. As Guskey (2002) asserts, the meaning of teaching is enriched by teachers' engagement in continuous professional development. Hence, teaching must be viewed through persistent reflection and application of innovation by means of inquiry-based approaches. In this process teachers cannot be isolated from the social context. On the contrary, they are suggested to be in strong communication with other parties (e.g. colleagues, administration, students) taking role in education in social constructivism. According to the proponents of social constructivism this situation is supposed to lead to better teacher improvement and professional development (Guskey, 2002).

In the light of the above discussion, the theoretical framework underpinning the present study is social constructivism (Roberts, 1998) defining reality as "an ongoing process of meaning making and interpretation" (Williams and Burden, 1997). Social constructivism, as an educational theory, is based on the importance of dialogue and interpersonal communication in the process of teacher learning as well as the process of teaching /learning (Vygotsky, 1997).

As a part of the basic activities of teacher learning, action research, which is also named as teacher-research and classroom research, was proposed as the methodology of action science by the German-American psychologist Lewin (1946) (as cited in Roberts, 1998). To Lewin, teachers learn from investigation of their teaching contexts by the help of concrete evidence affecting their instructions. His concern was about the investigation and the solution of real world problems. One of his remarkable statements is as follows;

> Research is too important to be left in publications, in books, but should be put directly into the service of problems needing urgent solutions (as cited in Van Lier, 1994).

Additionally, engaging teachers in the process of research has been emphasized as 'democratizing research' as a way to free practitioners and improve curriculum (Stenhouse, 1985). Similarly, within the same theoretical framework, Carr and Kemmis (1986) state that teacher-research challenges the 'conformist' nature of teaching through teachers' active participation in the research process and taking the responsibility of their own development. In the field, some people argue that teachers should carry out research with others. It is vital to work in collaboration with other parties in education i.e. students, administrators, teachers, since it is difficult to observe or record one's own classroom in a systematic way (e.g. Van Lier, 1994). In fact, collaboration and dialogue underlie the social constructivist approach to teacher learning and professional development (Williams and Burden, 1997). Considering these principles of social constructivism, it is an appropriate framework for the purposes of this study.

3.3. Research Design

In this study, convergent parallel design strategy which is among the mixed method strategies was adopted (Creswell and Clark, 2011). This design is suggested when the concurrent timing was used to gather data through quantitative and qualitative sources during the same phase of the research process. In this design, the data sources are kept independent during analysis and then the results are mixed during the overall interpretation. This approach is also claimed to enable triangulation and gathering stronger data for reliability concerns.

3.3.1. Rationale for Adopting Convergent Parallel Mixed-methods Design

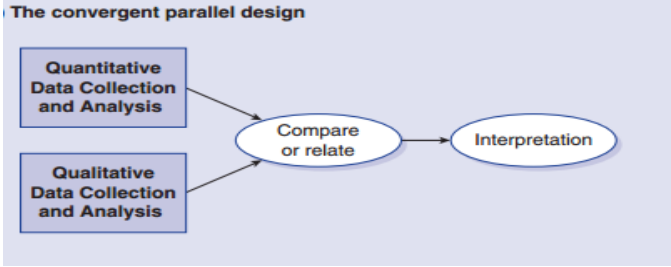
Mixed method is a procedure which combines numerical and verbal data collection sources and analysis at different stages of the research process within the study for the purpose of better understanding of the research problem (Tashakkori and Teddlie 2003; Creswell 2005, Ivankova, Creswell and Stick, 2006). The main rationale for mixing data collection and analysis

methods is due to the fact that none of the methods is claimed to be appropriate and sufficient by itself. When they are used together, they are believed to complement each other and result in a more robust analysis.

In the literature, approximately forty different types of mixed-method approaches were listed (Creswell, Plano Clark, et al., 2003, pp. 216–217). Creswell and Clark (2011) classified these forty methods into a single version. According to this recent classification, there occurred six major mixed methods research design; (1) convergent parallel design, (2) explanatory sequential design, (3) exploratory sequential design, (4) the embedded design, (5) transformative design, (6) multiphase design.

Owing to the purposes of this study which are addressed with four different research questions, both quantitative and qualitative strands were applied concurrently by keeping the strands independent during analysis and then mixing the results during interpretation as can be seen in Figure 3.1. As a result, through adopting convergent parallel design, triangulation of data, more comprehensive account of analysis, increasing credibility of the study and compensating weaknesses of either research types were aimed.

Figure 3.1
Convergent Parallel Design (Adopted from Creswell and Clark, 2011, p.69)



3.4. Setting

This study was conducted in the MA in TEFL program of a private university in Istanbul, Turkey in the spring semester of 2012-2013 academic year. The university is an English medium university with approximately 25.000 students. English Language Teacher education program which was founded in 2004-05 academic year, offers B.A., M.A. and PhD

programs in English Language Education. This department is offered by the Faculty of Education which comprises five departments.

MA in TEFL program has been opened in the academic year of 2006-2007. Till the time of the study, 137 students have been accepted to the program. 61 of them graduated, 76 students were still going on with their MA in TEFL education. Students, who want to graduate with thesis, have to take eight courses during the program and complete 24 credits. If their GPA score for eight courses is over 3.50, they can write an MA thesis. On the other hand, students attending MA with non-thesis program, have to take 10 courses and complete 30 credits to receive their MA degree. The curriculum of the program focuses on theoretical and practical issues related to teaching English as a Foreign Language, in-service teacher education and professional development.

The purpose of the MA in TEFL program is twofold. MA with thesis program aims to create an academic environment in which the participants develop professionally to possibly go on with their PhD studies in the future by the help of the theoretical courses such as Research Methods in ELT, Second Language Acquisition, Sociolinguistics, Corpus in Linguistics. These courses prepare the ground for their future PhD studies. Non-thesis MA program on the other hand, aims at developing students as professionals in language teaching. Courses such as Materials Development, Technology use in ELT prepare the grounds for sharing ideas with peers and instructors and reflecting on own and others teaching practices within the framework of required readings and practice in classroom based research which is an essential component of this program to find solutions for the problems in their own contexts. In this sense, non-thesis MA students are given the opportunity for their professional development.

3.5. Participants

At the time of the study, there were 61 MA in TEFL students enrolled in the program. 17 students (5 male, 12 female) who have enrolled in the program as of fall semester of the

academic year 2012-2013, participated in the study. 13 participants were working in private institutions whereas 4 were working in state schools. 12 of them were full-time; the other five were part-time instructors of EFL. Seven participants were working at high-schools, nine participants were working at university level and only one participant was working at a kindergarten. The reason of this purposive sampling is owing to the fact that, these 17 MA students had not taken any research course before the semester when the study was conducted.

3.6. The Researcher

The researcher of the present study is an experienced EFL teacher. At the time of the research, she was an instructor in the preparatory program of the English Language Teaching department. She has also been teaching General English courses (e.g. Oral Communication, English Composition) in the undergraduate level of the same department. For the purposes of this study, she revised the syllabus of INSET course under the supervision of her dissertation supervisor. She also taught the course but she did not tell the students that this course would serve as the treatment for the dissertation. It is believed to cause reliability problems if the participants know that there is a researcher in their context and they can tend to manipulate their natural behavior and ideas which is also known as 'hawthorne effect'. Participants might have thought to tell what was expected from them during data collection. However, it was not possible to collect data independent of the researcher since the research design included the INSET course as the treatment (Sorensen, 2014). For this reason, the instructor did not declare that she was the researcher at the same time (Sarantakos, 2005). Furthermore, to eliminate any trustworthiness concerns, strong collaboration with participants was ensured during the data interpretation process (Sorensen, 2014).

The researcher, also the instructor, had the role of supervisor who coached student-teachers in their process of learning about teacher-research and practicing it throughout the semester. The theoretical information was provided through reading assignments to be

discussed in the class. During these discussions participants were encouraged to relate what they had read to their research engagement. Specifically speaking, her role was to facilitate and monitor in-class discussions. During these discussions, she also clarified the problems and questions the students asked. When the students asked for extra examples and practice, she, as the instructor, provided students with the necessary and sufficient materials. During in-class activities, she monitored and encouraged students to participate in the activities. Moreover, she had the role of supervisor during their research engagements. When the students had difficulty in the process of practicing research, she guided and supported them either in the feedback sessions or in one-to-one conferencing sessions without interfering their decisions related to each phase of research engagement.

3.7. Treatment: Current Issues in In-service Teacher Education and Professional Development (INSET) Course

INSET course is one of the required courses that the MA in TEFL students take for partial fulfillment as the requirement of thesis and non-thesis MA in TEFL program. The course was originally aimed at having a theory-based content which were mostly presented by the students. As the outputs of the course, students were expected to (a) have a wider knowledge of many of the issues faced by in-service TEFL teachers as a result of course readings, discussions and research, (b) read in depth on the subject of an issue of concern to themselves and/or their colleagues which has implications for professional development, (c) expand their ability to set up and report an action research project, (d) be able to contribute to the professional development of colleagues, (e) gain experience in presenting research findings.

When the content was analyzed, a close link between theory and practice was clearly seen, however, during unofficial discussions, the students pointed out that they were required to conduct their action research without being provided with sufficient training and guidance. As a result they had difficulty in applying what they did or learnt into their practice.

For the purposes of this study, the syllabus of the INSET course was redesigned to help participants develop as motivated and efficacious independent teacher-researchers who try to solve the possible problems in their classrooms by implementing the results of published research and the research they conduct themselves. For this purpose, participants were provided with readings and opportunities for experimentation in their own classroom to develop their research knowledge and research engagement. In doing so, the course also aimed to improve their motivation and efficacy in conducting teacher research and reflectivity in relation to teaching.

MA in TEFL program students are also required to take a Research Methods course aiming to develop: (a) students' understanding of the nature of applied research design, (b) the ability to critique the internal and external validity of research studies, (c) the skills necessary to calculate basic statistics using the SPSS computer package, (d) the ability to interpret and report the results of statistical analyses.

More specifically, Research Methods course is designed to provide a well-grounded and advanced level introduction to the overall process of applied research. It provides a sound introduction to some major topics such as relationship between science and educational research, related theories, the process of educational research, conceptualization and measurement, issues related to sampling, causation and research design, approaches to data collection (experiments, survey research, observations, interviews and action research), evaluating the scientific merits of other researchers' work, analyzing the qualitative and quantitative data, conducting basic analysis tests such as t-test, chi-square, correlation and ANOVA, conducting and writing a research paper.

On the other hand, revised INSET course specifically focuses on raising MA in TEFL students' awareness of what teacher-research is and how it is applied in their teaching practice to overcome possible problems they encounter in their contexts. Research they are practicing

in this redesigned course is mostly qualitative by the help of which they can understand and solve the problem through data gathered and discuss the results in a narrative format. Hence, they are guided to become independent teacher-researchers exploring their own teaching practice. The major purpose of this course is, then, to fill the practical gap in the program, mostly consisting of theoretical courses by providing teachers with the opportunity to practice research in their own contexts which is in turn believed to involve them in a continuous professional development and reflectivity.

3.7.1. Structure of INSET Course

The course was offered 3 hours per week for 15 weeks in MA in TEFL program in 2012-2013 academic year spring semester (see Appendix K for the syllabus). The readings for the course were compiled according to academic level of students who were all in-service teachers. Books with the purpose of educating in-service language teachers as teacher-researchers were reviewed (e.g. Nunan, 1989; Richards and Lockhart, 1994; Freeman, 1996; Gebhardt and Oprandy, 1999; Lankshear and Knobel, 2004; Roth, 2007) and weekly readings were compiled in a pack.

In order to increase the participants' awareness with regards to teacher research and its applicability, students were required to complete 10 written tasks (see Appendix G). Each written task was assigned after in-class discussions on a specific subject to help students grasp the theory better. Out of ten written tasks, five of them included instructional tasks (e.g. doing and interview, transcribing and doing content analysis) by which the students were expected to apply what they learned in the previous week. After completing these instructional tasks, they were required to reflect on the application process of the instructional task. Therefore, the major aim of the weekly written tasks was to raise the participating teachers' awareness of their own teaching and help them develop as reflective professionals.

As another important component of the course students were asked to identify a problem in their own teaching contexts and conduct a research to solve it by following the steps in teacher-research cycle. Together with their research projects, they were also required to keep a reflective journal (see Appendix H for the guidelines). This task aimed to tap the experiences of participants during teacher research engagement. The difference of this journal from the weekly tasks is that it is mostly related to the experiences they gained during the process of conducting their own research projects.

The students sent their completed tasks to the instructor one day before the class time every week so that the instructor could read and identify the problems during students' application process to discuss and/or give feedback in the following session. Every week, two class hours started with the discussion of the instructional task assigned in the previous week and went on with the discussion on reading assignments about what teacher-research is, how to conduct teacher research, its significance for and contribution to teachers' professional development. The remaining one class hour focused on students' reflections on the weekly assigned tasks and their experiences while they were conducting their research.

At the end of this course students were expected to be capable of; (a) understanding key concepts and issues in teacher-research, (b) understanding the importance of teacher-research as a significant component of their profession, (c) identifying problems in their teaching, (d) planning a research to solve the problem, (e) accessing related literature and doing literature review, (f) deciding on the appropriate research methodology, (g) collecting data appropriate to the problem, (h) analyzing both numerical and verbal data, (i) interpreting the results, (j) implementing findings into their teaching.

Both summative and formative assessment applied to evaluate participants' achievement in this course; final Exam (20%), weekly written tasks: 10% (1% each), research journal (10%), teacher-research project (50%), attendance and participation (10%).

3.7.2. Implementation of the INSET Course

Week 1:

During the first week of this fifteen week course, students were asked to write an essay on their conceptions of teacher research. While writing their essays, they were given guiding questions to follow (see Appendix D). They were, then, given the course syllabus including the weekly plan of the course content and the requirements. The syllabus was reviewed together, mutual expectations were negotiated and the readings for the second week were assigned. Finally, the students were asked to complete the first written task aiming at raising the students' awareness of their classroom practice and professional development**.** For this aim they were to write a reflective essay and ask themselves the following questions as a language teacher (adapted from Richards and Lockhart, 1994): (a) What is the source of my ideas about language teaching?, (b) Where am I in my professional development?, (c) How am I developing as a language teacher?, (d) What are my strengths/weaknesses as a language teacher?, (e) What are my limitations at present?, (f) How can I improve my language teaching?.

Week 2:

The lesson began with the discussions on various topics covered in the readings assigned in the previous week. Topics discussed mainly were; (a) meaning of teacher research, (b) the role of teacher as a researcher, (c) the rationale for teacher research. In relation to each topic, to help students personalize the topic, the discussion started with warm-up activities such as brainstorming. During the discussion on the first topic which is the meaning of teacher research, students were expected to learn the similarities and differences between academic research and teacher research (Lankshear and Knobel, 2006). While doing this, students discussed the cyclical nature of teacher research as a systematic inquiry and general features of teacher research (i.e. research question, literature review, gathering data). Discussion of first topic created was a perfect introduction to the overall content of the course. Second topic was the

role of teacher as a researcher. During the discussion of this topic, students mainly focused on the gap between theory and practice in relation to research and teachers' engagement in research and teachers' major concerns of practicing research (Nunan, 1989). They also discussed the rationale for teacher research as the third main topic. In doing so, the significance and role of teacher research for teachers' professional development were the major foci of the discussion. After having discussed about all these topics, the instructor provided students with some slides which included the key concepts that were necessarily discussed by the students to wrap up the discussion. The discussion continued with the in-class activity about "exploring our teaching" (Gebhard and Oprandy, 1999). The aim of this task was to make learners personalize the subjects discussed in the classroom.

In the second half of the session, whole-class feedback was given to students' first reflective task assignment which was explained previously. During this feedback hour, they related their reflections with the issues discussed in the first half of the session. Before the session ends, the students were assigned readings for the third week and the second reflective task aiming at developing awareness related to the significance of being research engaged. For the task they were provided with a quotation by Long (as cited in Nunan, 1984) suggesting that teacher involvement in research provides teachers with useful information about what actually happens in their classrooms, gives teachers techniques for monitoring and evaluating their own teaching and the teaching of their peers, and helps teachers resist bandwagons. They were asked to reflect on the role of teachers' engagement in research given their own teaching situation.

Week 3:

The main topic to discuss was teacher-research as a systematic inquiry (Lankshear and Knobel, 2006; Gebhard and Oprandy, 1999). In order to introduce the systematicity of teacher-research, the discussion agenda was set around the importance of research question and

problem, how to pose a good quality research question. To help students better acquire, they were provided with a set of questions and asked to discuss their quality in peers. Later on they were given a set of problems and they formulated research questions themselves. After this step to inquiry, teacher-research design was introduced and the process of exploration through action research was discussed. The students sometimes made comparisons between the designs of applied research articles they read previously for the purposes of other courses and the cycle of teacher-research. During the discussions on the process of exploration, some other key concepts such as data, instrumentation, sampling, analysis and interpretation were also discussed as the key concepts. Finally, the importance of being engaged in such a cycle as teachers for professional development was mentioned.

In the second half of the session, discussion was on the second reflective task, which was assigned in the previous week. Accordingly, students were expected to discuss what the teachers' role as the researcher in their own context. Every single student was given the word to share his/her reflection with his or her friends to receive peer feedback.

Before finishing the session, the instructor distributed a teacher research (Richards, 1999, p. 203) study and required students to write a reflective paper concerning the design and purpose of the study as the third reflective task. The aim was to better comprehend the way a teacher-research is conducted and reported and its difference from applied research studies in relation to design and reporting. .

Week 4:

The first half of class began with the review of the topics discussed in the previous weeks. This review aimed at reminding students the theory covered till this week. This was done on purpose owing to the fact that, from this week on the details of the general picture in relation to teacher research would be delved into. The students discussed the written task

assigned in the previous week. In doing so, students were encouraged to review the theoretical issues. To illustrate, the students reflected on the problem explored in the study and the design adopted.

After this review and reflection session, second half continued with the discussion on various topics (e.g. formulating research purposes, from problems to planning the action). The discussion focused on how to formulate research questions appropriate to research problems and purposes and the characteristics of good research questions (Lankshear and Knobel, 2006). To help students better understand, they were provided with sample research questions and asked to work on them in peers and decide which ones are better in quality and if they are not good, they were required to modify those questions. Next topic of the discussion was how to plan a teacher-research cycle with its necessary phases in order to find solutions to the possible problems in classroom settings (Freeman, 1994).

Before ending the session, students were asked to complete task four. For this task, they were required to reflect on their own lessons with specific attention to teaching techniques, classroom management, goals/objectives and their strengths and weaknesses as a teacher in order to identify the problems in their teachings. As another purpose of this task, they were asked to choose one of the problems and prepare a research proposal including the statement of the problem and the research question(s), which they think needs immediate solution to start a teacher-research project as one of the requirements of INSET course. The students in the classroom conducted individual teacher research due to the fact that they were all working in different schools. In other words, for practicality purposes, they could not work in collaboration with each other. However, in order to maintain the collaborative nature of teacher research, they were in collaboration with their colleagues at their own schools either by asking their opinions or asking them for observation or interview. As another note, the students were informed that from this week-on they would start keeping a reflective journal and the first entry would be

about the first three tasks they completed previously. They were asked to reflect on the difficulties they encountered and the strategies they applied to overcome those difficulties while accomplishing the first three tasks.

Week 5:

The lesson began with the discussion on the general approaches to teacher research. Specifically speaking, document-based research, quantitative research, qualitative research and mixed methods approach and triangulation were discussed with their advantages and disadvantages for teacher-research in the first session in a general sense (Lanshear and Knobel, 2006). During the discussion, appropriate data collection methods for these approaches were also mentioned. To help students learn in detail, students were given in-class task which requires students to match different research questions, with suitable data collection tools and the approaches in peers with relevant justifications. As a second topic, what literature review is, and its importance to inform the research study were discussed. The instructor informed students about how to get access to online databases and resources.

In the feedback session, each student explained the problem s/he identified as a research problem and both the instructor and the peers provided feedback. Sometimes, ways to solve the problem were advised, sometimes the nature of the problem was discussed. In the end of this session, the students were assigned to get access at least four articles and a book related to their research problem and write a literature review together with the reference page. The students were required to find articles which were published in the last five years in order to make them read the recent developments about their problems in the field. As the reflective task five, they were required to reflect on the process of planning and reviewing literature for their research project. For this purpose, they would first complete the instructional task which is writing a literature review and then they would reflect on the process of doing it.

After the lesson, one-to-one conference session was held with the students who could not decide which problem to solve. During this session, students' reflective tasks were read together and the students were guided with some questions such as "Which problem do you experience most frequently?".

Week 6:

The lesson started with a quick review of general approaches to teacher-research and the role of literature review. After this quick reminder, the discussion started with quantitative research designs. Even though teacher research is mostly qualitative, quantitative research is not restricted. Additionally, in order to help students make sense out of the numbers in readings, it is suggested to instruct basics of quantitative study. Without going into detail, general information about the differences among different research designs (i.e. experimental study, correlational study) were discussed (Lankshear and Knobel, 2006). Secondly, some useful key terms such as independent/dependent variables, random/purposive sampling to better grasp the idea behind these designs were also discussed. Finally, some samples of questionnaires, surveys and tally sheets were brought to classroom and necessary explanations how to adapt/adopt these instruments for their teacher-research projects were explained.

In the feedback session, the students reflected on their process of planning and writing a literature review as the task for this week. They discussed on the difficulties they faced and the strategies they used to overcome those problems such as finding the most relevant articles and synthesizing what they read. After the feedback from students about the lack of time to complete their literature reviews, an additional week was given for the fifth task and a new task was not assigned for the following week.

Week 7:

The major focus of this lesson was teacher research as qualitative investigation. After discussing the reasons of qualitative nature of teacher research, the distinction between some concepts such as "naturally occurring data" in observation and "prepared settings" for interviews to collect data as well as the distinction between "new" and "existing" data were also mentioned (Lankshear and Knobel, 2006). Secondly, general information about three different kinds of data (spoken, observed, written) were presented. For each type of data, students were provided with sample research questions requiring different kinds of data. Later, research questions and data types were discussed first in peers, then as whole class. As a second in-class activity, they were asked to think, what type of data they need, to answer their own research question in their research projects. Then, they discussed as whole class and received feedback from each other and the instructor.

Due to the fact that students were not assigned a reflective task in the previous week, the second half of the lesson was also devoted to readings assigned on the qualitative teacher research in the previous week. In this session, data collection techniques such as; interview, observation, recording, field notes and their advantages and disadvantages were discussed (Freeman, 2004). Different techniques were assigned to different student groups for discussion in the class. While the students were discussing each technique, they were required to discuss its dis/advantages, methods and types. To illustrate, the group of students who discussed interview mentioned its methods (e.g. structured, semi-structured, unstructured) and its types (e.g. individual, focused-group) as well as its advantages and disadvantages. This way of discussion was repeated for observation, field-notes, think-aloud protocols and journals. Before ending the lesson, both quantitative and qualitative research designs were reviewed and the importance of triangulation was discussed. Finally, the students were assigned reflective task 6 aiming at helping students identify the most appropriate data collection method(s) for different

problems (adapted from Richards and Lockhart, 1994). For this task, they were provided with five different situations and asked to state which data collection method would be most appropriate by stating justifications for each decision. Additionally, they were required to write second journal entry in which they were to reflect on the process of choosing the appropriate research method for their research project.

Week 8:

The lesson started with a quick review of the qualitative research designs and data collection techniques, which were all discussed in the previous week. After this review section, lesson went on with the discussion on various topics related to collecting spoken data for the purposes of teacher-research. The topics discussed were; the rationale for spoken data collection, how and why to collect spoken data, interview, think aloud protocol, recording and analysis of spoken data. Later, in order to help students better learn the details, the instructor demonstrated some video clips of real examples of interviewing, read-aloud protocol and recording. After watching these clips, students were asked to reflect on each technique in terms of its practicality and the possible difficulties. As a second activity, students worked in peers, prepared three interview questions on a given topic and demonstrated how to do both individual and focused-group interview in the class. Each peer received feedback from other students and the instructor after demonstration.

In the second session, analysis of spoken data was discussed. In this discussion students were informed about transcription process, pattern-coding, open coding and the distinctions between two data analysis techniques. Since it was the first time the students would do analysis of qualitative data, the instructor explained and demonstrated how to do the analysis on a piece of transcribed spoken data. The instruction started with preparing and organizing data to do categorizing and coding. The instruction went on with pattern-coding because of its being more

structured. Later on, students experienced this process of analysis in peers on another transcribed data through hands-on experience in the class in peers.

Because of the loaded session agenda, the duration of the feedback session was decreased to half an hour. Students discussed on reflective task 6 and they commented on the situations and appropriate research methods for each one. For the following week, students were assigned reflective task 7. For this task students were required to do an interview with one of their colleagues after preparing a set of questions on an educational issue they would identify. Then, they recorded, transcribed and analyzed the data they gathered. As a second step, they would write a reflective essay on the process of preparing, doing and analyzing an interview. Students who decided to collect spoken data for their projects also wrote the third entry in their reflective journals about the process they were engaged in.

Week 9:

The lesson started with discussion in relation to observational data (e.g. the role of observer, purposes and types of observed data, advantages and disadvantages of observation, recording). During this discussion, the significance of self-observation and peer-observation with specific relation to teacher-research and its importance for professional development was also mentioned. As a second issue, the instruments to gather observed data (e.g. tally sheet, narrative account, and check list) were introduced by the instructor. Later, students went on discussing the nature of different instruments. The session continued with personalizing the issue through the prompting questions of the instructor such as; Have you ever observed your colleague's class? / Have you ever been observed by another colleague?, How did you feel? The aim of this personalizing activity was to make them understand the possible changes in the behavior of an observed teacher or students as well as its advantages and disadvantages. Finally, the instructor

asked, who would collect observed data for his/her research project, why and how. This activity served as a review.

In the second half of the lesson, the instructor taught open coding on a piece of transcribed recording by demonstrating every step. Next, the students worked on another piece of transcription of an audio-recorded lesson and did the open-coding analysis with their peers and then checked the results with the instructor.

In the end of the lesson, students shared their interview experiences, which they did for the reflective task 7. They generally discussed the difficulties they experienced during the preparation process as well as conducting and analysis processes. The difficulties they mentioned were generally about preparing questions and analysis. For the following week, they were assigned reflective task 8 both to practice observation as a data collection method and reflect on the process of gathering and analyzing observed data. They were given a tally sheet (Nunan, 1989, p. 78) to analyze the interaction in one of their colleague's classroom by the instructor. They were also asked to keep field-notes in addition to tallying. Because of administrative restrictions, none of the students could do recording. After doing the observation, they were asked to quantify the tally sheet and do the coding of the field-notes they took during the lesson an then they identified possible problems to research in the class they observed together with the teacher of the class. In this way, they were introduced to mixed method approach for teacher research. After completing this instructional task, they were asked to reflect on the process. Finally, the students who were collecting observed data for their projects were asked to write an entry into their reflective journals about the process of collecting and analyzing observed data.

Week 10:

Tenth week's session started with the discussion on the key concepts related to collecting and analyzing written data. These concepts are; written data sources, criteria to evaluate written documents, different purposes of collecting written data and content analysis. The discussion started with what is meant by written data and whether every written information can be data or not. The discussion went on with the purposes and uses of written data for teacher-research purposes. Later, the sources of written data such as; journals, logs, field-notes were discussed in detail. The students also mentioned the advantages and disadvantages of collecting written data for their research purposes.

After the discussion of the above mentioned key concepts, content analysis was the main issue to discuss. In addition to the types of coding (i.e. open coding, pattern coding), how to quantify content as a part of content analysis was also introduced. The instructor distributed one page of journal entry and asked students to work on it with peers to do the content analysis by both coding and quantifying the content.

In the second half of the lesson, students reflected on task 8 which was both an instructional and reflective task about collecting and analyzing observed data. The students discussed the difficulties and benefits of doing an observation in a colleague's class. Before finishing the course, the students were assigned reflective task 9. The aim of this task was to develop students' written data collection and analysis skills. For the task, they asked one of their colleagues to reflect on one of his/her lessons in written form. Then, they were also required to do the content analysis on that piece of reflective essay. After completing this instructional part of the task, they were required to reflect on the process of collecting and analyzing written data. In addition, the students who collected written data for their own research projects would write an entry in their reflective journals about the process.

Week 11:

The lesson started with a general review of the qualitative data collection ways and analysis. After this review, the main issue to discuss was collecting and analyzing questionnaire data. Even though, teacher research is in general qualitative, there is no restriction for quantitative studies (Lankshear and Knobel, 2006). Just to give some basic understanding of the statistical numbers such as; descriptives, and help teachers to understand the numbers in the articles they can come up with, this week was dedicated to quantitative data collection and basic analysis.

The discussion started with the review of difference between adopting and adapting a questionnaire. Later, students were given some brief information about the process of developing a questionnaire (Sarantakos, 2005). However, they were not asked to develop one because of time restrictions. Since it is not a statistics based course, and the knowledge about descriptive statistics (mean, median, average, standard deviation) were suggested to be sufficient (Nunan, 1998) for classroom based studies, the students were taught how to conduct descriptive statistics both by hand and on SPSS.

In the second half of the lesson, the students reflected on their written data collection and analysis processes which was assigned with reflective task 9. They talked about the problems they encountered and how they solved them. For the following week, the students were assigned the tenth and the last reflective task which required them to find a published teacher-research article and reflect on the article by following the guideline provided with the reflective task. According to that guideline, they were expected to summarize the aim, research cycle and the results. Afterwards, they would reflect on the design of the study by discussing any possible drawbacks and limitations and reflect on the possibility of implementing the results in their own contexts.

Week 12:

The lesson started with the discussion on the quality of research projects. In doing so, reliability and validity of teacher-research were delved into from both quantitative and qualitative perspectives. In doing so, how to ensure the reliability and validity of teacher research were also discussed. How to interpret and report the analyzed data were discussed in the second half of the lesson. In this session, the students' idea sharing with relation to reflective task 10 helped them better understand the reporting of teacher-research projects. Finally, students were asked to write an entry about the process of reporting their research projects and another entry on the whole process of being engaged in a classroom-based research.

In **weeks 13 and 14**, students presented their research projects and shared their experiences with their peers. These weeks were important in order to make their research studies public and give them a chance to share their teacher-research engagement and learn from each other's studies, which is an important characteristic of being a teacher-researcher. After their presentations, the peers and the instructor asked some questions related to different phases of research process.

Week 15 served as a post-treatment data collection period. They were given the questionnaires, asked to write the essays and four volunteered students were interviewed.

3.8. Data Collection Instruments and Procedure

Data were collected through Survey of English Language Teachers' Research knowledge (adapted from Borg, 2009, see Appendix A), Teachers' Efficacy in Research Scale (see Appendix B) and Teachers' Motivation for Research Scale (see Appendix C). Research knowledge and practice essays (see Appendix D for guideline) written both before and after the instruction, research knowledge and practice interview (see Appendix D), motivation for research interview (see Appendix F) and efficacy in research interview (see Appendix E), 10

weekly written tasks (see Appendix G for guidelines), reflective journal kept throughout research engagement (see Appendix H for guidelines), essay to elicit participants' opinions about the relative contribution of INSET and other MA courses to their research knowledge (see Appendix J) and the researcher's post facto notes kept after each session were the other data collection sources.

3.8.1. Questionnaires

3.8.1.1. Survey of English Language Teachers' Research Knowledge

The survey of English Language Teachers' Research Knowledge (Borg, 2009) consists of six different sections namely; (1) *scenarios* aimed to investigate participants' understanding of research through evaluating different inquiries, (2) *characteristics of research* elicited the ideas of participants related to how important provided characteristics is in conducting research, (3) *research culture* examined their opinion about the general attitude to research in their own teaching contexts, (4) *reading research* investigated the extent of participants' reading research articles and what kind of journals they were reading, (5) *doing research* aimed at learning whether the participants engaged in research process and reasons of doing it, and (6) *about yourself* asked some background and personal information.

Originally, in total there were 37 items distributed to the above 6 sections. Even though the items in five of the six sections were kept as they are, some of the items in section two which is about the characteristics of good quality research were adapted and some items were added according to the context and purposes of the study by taking the opinions of four different experts in the field. To illustrate; the item "A large number of people are studied" was changed to "The number of participants depends on the type of research". Since there were no items related to qualitative data analysis and collection, some items to evaluate these characteristics were added. Some of the additional items are; "Verbal data are analyzed with content analysis"

and “For qualitative research data can be collected through interviews”. After this adaptation, the number of items in this section increased to 14 from 11.

3.8.1.2. Teachers’ Motivation for and Efficacy in Research Questionnaires

In order to investigate the efficacy and motivation levels of participants with specific attention to teacher-research engagement, no questionnaires was available in the field. Therefore, for the purposes of this study, two scales aiming to meet the purpose of the study and fill the gap in the field were decided to be developed.

3.8.1.2.1. Developing a Motivation for Research Questionnaire

After a detailed review of the literature, previously developed various motivation scales (e.g. Hardre, Beesley, Miller & Pace, 2011; Trembley et al. 2009; Vallerand, 1992; Waugh, 2002) were examined for wording. Before developing the items, unofficial negotiations were held with colleagues and pre-service teachers. They were asked questions like; What kind of factors motivate you to do research?, Do demotivating factors such as unappreciative work environment prevent you from researching?, Are you motivated? Why/not?. After these negotiations, items aiming at investigating motivation were created and a pool of 45 items were prepared. While preparing the items, rules for construction of a questionnaire were strictly followed (Mahr, 1995). According to these rules, statements are suggested to be easy to read and follow including clear instructions about how to respond the items. Additionally, every statement is recommended to be relevant to one or more aspects of the study, ambiguous and leading questions are advised to be avoided. If the items are not in the native language of the respondents, simple language is suggested to be used without jargon, double negatives and complicated expressions.

Items such as; *I do research to get a promotion* were written to examine participants’ extrinsic motivation to do research whereas items just like; *I do research because it helps keep*

up with the recent developments aimed at investigating intrinsic motivation of the participating teachers. There were 22 items for extrinsic motivation and 23 items for intrinsic motivation.

Later on, for the purpose of content validity, these 45 items were given to four different experts who were academics in the ELT department for scrutiny and suggestions. The experts were asked to evaluate items with regard to relevance, content coverage and understandability. While giving this scale to experts, some changes or eliminations and further item suggestions were anticipated. Hence, the experts gave detailed feedback on each item. Some items were reformulated, some of them were eliminated and some were added. In the end of this step the statements were tested for relevancy, clarity and simplicity as well as for conformity with the basic rules of questionnaire construction stated above by the researcher and her supervisor. As a result, some ambiguous items involving double negatives and jargon were corrected and reformulated. After doing necessary revisions, the questionnaire was assigned to experts again and revised till it was considered to be satisfactory.

After all these steps, final version of the scale with 25 items was prepared (see Appendix C). With items 1, 2, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 20, 21 intrinsic motivation of teachers for research was aimed to be investigated whereas with items 3, 14, 15, 16, 17, 18, 19, 22, 23, 24, 25 extrinsic motivation was aimed to be tapped. This scale was administered to randomly selected 30 pre-service teachers who were attending to English Language Teaching certificate program in the same institution. The students were asked to indicate the extent to which they agree with the statements related to their motivation for research on a 4 point Likert scale ranging from "not at all true" (1) to "very much true" (4).

After the data were gathered, KMO and Bartlett's test of Sphericity assumptions were checked to be able to conduct factorial analysis. The KMO value varies between 0 and 1. A value close to 1 indicates that patterns of correlations are compact, and factor analysis will yield reliable factors (Akbulut et al, 2010; Kline, 1994). KMO values of .60 or above are acceptable

(Pallant, 2001; Kline, 1994; Tabachnick and Fidell 2007; Hair, et al., 1998, George and Mallery 2001). As can be seen in table 3.1, KMO value was found to be .716 and Bartlett's test of Sphericity resulted in .000. These are the tests to evaluate whether the data meet the sampling adequacy assumption or not. In other words, meeting this assumption means the sample was large enough to apply a satisfactory factorial analysis (Büyüköztürk 2003).

Table 3.1
KMO and Bartlett's Test

Kaiser-Meyer-Olkin Measure of Sampling Adequacy			,716
Bartlett's Test of Sphericity		Approx.Chi-Square	1179.830
df	300	Sig.	,000

To examine the factor structure behind the scale, principle component method was performed and it was followed by varimax rotation (rotated component matrix) (see table 3.2). The factor analysis resulted in two independent factors with factor loadings greater than 0.4.

Table 3.2.
Rotated Component Matrix for Motivation for Research Questionnaire

	Component	
	1	2
Item 1	.575	
Item 2	.624	
Item 3		.510
Item 4	.772	
Item 5	.770	
Item 6	.720	
Item 7	.821	
Item 8	.763	
Item 9	.836	
Item 10	.790	
Item 11	.586	
Item 12	.801	
Item 13	.876	
Item 14		.855
Item 15		.885
Item 16		.721
Item 17		.850
Item 18		.868
Item 19		.911
Item 20	.619	
Item 21	.806	
Item 22		.785
Item 23		.855
Item 24		.742
Item 25		.650

Extraction Method: Principle Component Analysis

Factor 1 includes 14 items all of which measure the intrinsic motivation of teachers for research. Therefore, this factor was named as 'intrinsic motivation'. On the other hand, factor 2 includes 11 items measuring extrinsic motivation of participants for research. Thus, it was named as 'extrinsic motivation. As a result of this analysis, two major constructs were observed to evaluate constructs about intrinsic and extrinsic motivation of teachers for research engagement.

3.8.1.2.2. Developing an Efficacy in Research Questionnaire

Having reviewed the literature, various efficacy questionnaires (Ashton, Buhr & Crocker, 1984; Tschannen-Moran and Woolfolk Hoy, 2001; Gibson and Dembo, 1984; Henson, Kogan, and Vacha-Haase, 2001) were examined for the purposes of appropriate wording to use and the stem of the items. As the first step, an intensive literature review was done to identify the constructs to be investigated. Later, unstructured interviews were held with a few EFL teachers to elicit their concepts and capabilities related to research. Some of the questions asked were; What is research?, Do you read articles?, Have you ever done research?, What kind of steps do you know?. Following literature review and interviews, an item pool with 47 seven items was created with the purpose of investigating the following constructs which were elicited from literature review; *defining research and related concepts, reviewing literature, posing problems, collecting data, analyzing data, doing research, collaboration, presenting and applying findings*. In the process of development, rules suggested in the field (e.g. Mahr, 1995) were followed as mentioned in the previous section.

After creating an item pool, items were given to four ELT academicians for feedback on the relevance, content and intelligibility for the content validity purposes. Following their evaluations and feedback, some of the items were deleted, some were revised and some new items were added. However, the constructs were kept the same on their suggestion. After this process, the researcher and the supervisor tested the statements for clarity, relevance and

simplicity once more. Having done the necessary changes, the scale was assigned to experts for a second time and their approval was received.

As a result of expert opinions and revisions, there were 42 items on a four point likert scale ranging from "strongly disagree" (1) to "strongly agree" (4). The questionnaire was administered to randomly chosen 30 pre-service teachers who were attending to English Language Teaching Certificate program in the same institution. This group was selected on purpose because they were the closest group to the actual participants of the study in terms of academic level by being all graduates of English language related departments.

On the data gathered from the piloting the Kaiser–Meyer Olkin (KMO) measure of sampling adequacy (KMO) and Barlett's test were calculated to assess whether the sample was large enough to apply a satisfactory factor analysis and examine to determine appropriateness of factor analysis (Büyüköztürk 2003). For the piloting, KMO was found to be .667 and Bartlett's test of Sphericity resulted in a significant value supporting the factorability of the correlation matrix obtained from the items (.000, $p< 0.01$).

After checking these assumptions, varimax rotation factorial analysis was performed, and the items which loaded under the same factor were observed not to share common constructs. Therefore, the number of items reduced to 33 under the supervision of the advisors. And this revised scale was administered to other randomly selected 20 students again. Before performing the factorial analysis, sampling adequacy assumption tests were applied again. As a result, KMO was found to be .661 which is considered as a mediocre result (Pallant, 2001). The Bartlett's test of sphericity also resulted in a significant value (see table 3.3) for the application of the factorial analysis for the data.

Table 3.3
KMO and Bartlett's Test

Kaiser-Meyer-Olkin Measure of Sampling Adequacy			.661
Bartlett's Test of Sphericity		Approx.Chi-Square	1655.498
df	561	Sig.	.000

Factorial analysis was performed and the following rotated component matrix (see table 3.4) shows the results of the factor loading for the 33 items in the questionnaire. Even though the items in the questionnaire were aimed to group under eight constructs as stated previously, after factorial analysis, some items in different constructs tended to merge with other items. Therefore, after merging the items, factorial analysis revealed four independent constructs with factor loadings greater than 0.4.

Table 3.4
Rotated Component Matrix for Efficacy in Research Questionnaire

	Component			
	1	2	3	4
Item 1	,761			
Item 2	,459			
Item 3				,484
Item 4	,515			
Item 5	,570			
Item 6		,552		
Item 7		,466		
Item 8			,410	
Item 9				,676
Item 10	,551			
Item 11			,471	
Item 12				,641
Item 13			,502	
Item 14			,402	
Item 15			,818	
Item 16				,641
Item 17			,711	
Item 18				,489
Item 19	,728			
Item 20		,777		
Item 21		,548		
Item 22	,509			
Item 23	,645			
Item 24	,600			
Item 25		,526		
Item 26		,486		
Item 27		,744		
Item 28	,443			
Item 29	,622			
Item 30	,722			
Item 31				,600
Item 32	,664			
Item 33		,483		

Extraction Method: Principal Component Analysis.
a. 4 components extracted.

Items 1, 2, 4, 5, 10, 22, 23, 24, 29, 30 and 32 loaded under the first construct. The common characteristic of these items is the ability to do research. That's why it was labelled as

the ability to follow the process of doing research. Additionally, items 6, 7,19, 20, 21, 26, 27 and 33 under the second factor. This construct was entitled as *ability to deal with findings*. Moreover, items loaded under the third factor named as *instrumentation*. This construct consisted of items 8, 11, 13, 14, 15, 17. Finally, items 3, 9, 12, 16, 18 and 31 loaded under the fourth factor called *ability to understand and analyze data.* As a result of the analysis, item 25 were observed not to load under any related construct. This item was decided to be checked again after the main administration.

3.8.2. Other Data Sources

The purpose of other data sources is to triangulate and strengthen the data gathered through questionnaires for in-depth investigation. Weekly written tasks, reflective journal entries and students' research project reports have both instructional and data collection purposes. As it was explained in the structure and the weekly schedule of the course, students were required to complete the reflective tasks, journal entries and wrote their research project reports to help better understand the content of the INSET course. In addition, these written tasks, journal entries and research projects are used as data sources to evaluate the progress of students' reflectivity, difficulties they encountered during the process of conducting project and implementation of theoretical knowledge into practice. Other data sources namely; essays, interviews, and researcher's post facto notes have only the aim of data collection.

3.8.2.1. Written Tasks (Appendix G)

The instructional idea underlying written tasks is to raise the participants' awareness of their own teaching and helping them develop as reflective professionals. As a second purpose, these tasks serve as data collection source to evaluate students' progress in reflectivity.

From the standpoint of professional development, critical reflection is believed to trigger a deeper understanding of teaching (Richards, 1994). It involves examining teaching and learning experiences as a basis for evaluation, decision -making and the source for change.

A critical reflective teacher poses questions about the system they are involved in, their own practice and the alternatives. Therefore, written tasks underpin teachers' reflection on their action. For this purpose, the participating teachers were required to accomplish 10 reflective tasks. Each task was related to in-class discussions in line with the previous week's readings. Tasks 1 and 6 were adapted from Richards and Lockhart (1994) and task 2 was adapted from Nunan (1984). Other seven tasks were developed for this study. For each task, participants were provided with written guideline (see Appendix G).

3.8.2.2. Journal Entries

The difference of journals entries from written tasks was to understand the participants' experiences throughout the process of engaging in research. They were asked to keep a journal in every phase of conducting their teacher research projects. Each entry included their reflection on one-step of research process. The participants were required to write about the difficulties they encountered and their strategies to overcome those difficulties. They were also asked to write about their gains from each step as a teacher-researcher. They started writing their entries weekly starting from week four when they posed their problems to do research. With the purpose of data collection, these entries were used to evaluate the participants' feelings and reflectivity throughout their research engagement (see Appendix H for the guideline).

For the first journal entry, they reflected on the first three written tasks. The second entry included their reflections about the literature review process in which they discussed the difficulties and challenges they experienced, the benefits of this process. Third entry was about data collection phase, and the fourth entry was about the analysis of collected data. For the fifth entry, they reflected on the process of interpreting analyzed data. Finally, in the sixth entry, the participants reflected on the whole process of being engaged in a teacher-research project.

3.8.2.3. Essays

For the purposes of the study, the participants were required to write two different essays. One was to elicit their research knowledge and practice. After providing a guideline with some prompting questions, the participants wrote their essays both in the first week of the treatment and in the last week of the treatment.

The second essay was to explore the participants' opinions about the relative contributions of the INSET course and other MA courses to their research knowledge. It was written in the final week of the semester when the INSET course and other courses were over.

3.8.2.4. Interviews

Three different interviews were done with randomly selected four participants in order to trigger the discussion and not to limit their opinions. The interviews, aiming at eliciting the participants' research knowledge and practice, efficacy in research, motivation for research, were conducted at the outset and at the end of the instruction.

The first interview was conducted to investigate the participants' research knowledge and practice. The questions were grouped under two headings; research knowledge and research practice. Questions in the first group aimed to tap the participants' knowledge and conceptions related to research whereas questions in the second group aimed to evaluate participants' ideas and experiences of research practice (see Appendix D for the interview questions).

The second interview was done to elicit their feelings of efficacy in research. There were seven questions in this interview. All of the questions aimed at tapping their feelings regarding their capability to be engaged in research by doing and/or engaged with research by reading (see Appendix E for the interview questions)

The third one was to evaluate how motivated the participants were to be engaged in and/or with research. There were seven questions, all having the purpose of investigating their ideas related to their motivation in conducting, reading or implementing research (see Appendix F for the interview questions).

3.8.2.5. Researcher's Post Facto Notes

The researcher noted down her observations and reflections about each lesson in the form of a journal. As Bogdan and Biklen (1998) suggest, the notes were in the form of descriptions and reflections. By being both the researcher and the instructor of the course, she also reported her assumptions and sincere feelings as a part of the reflective notes. The purpose of these notes was two-fold. First, she did not want to forget any discussions or events happened during the courses while reporting the study. Second, she tried to make the data more comprehensive.

3.8.2.6. Participants' Research Project Reports

As an important part of the INSET course, participants were to conduct a teacher research project in order to solve one of the urgent problems in their teaching contexts. From the fourth week-on they started working on their projects. In the last week of the course, they all handed their research reports. The aims of receiving these reports were to see to what extent they could implement the theoretical knowledge they gained during the course into practice by being actively engaged in a teacher-research process and helping them learn teacher-research by hands-on experience as an instructional purpose.

3.8.2.7. Follow-up Interview

After the participants evaluated the scenarios in the first section of the Teachers' Research Knowledge Questionnaire (adapted from Borg, 2009), participants were asked to explain why they rated each scenario so. This follow-up interview was done during the post-instruction data collection. The reason for doing it after the instruction was to see their explanations after receiving instruction. In other words, their informed judgments about the scenarios were investigated.

Data collection procedure started in the beginning of spring semester of 2012-2013 academic year and continued till the end of this semester.

3.9. Data Analysis

3.9.1. Thrustworthiness of Data

In order to ensure the reliability and validity of the data gathered from various data collection techniques, trustworthiness criteria proposed by Guba and Lincoln (1985) were used. This evaluation was done according to four criteria they suggested; credibility, transferability, dependability and confirmability.

Credibility: To ensure the credibility of the qualitative data, prolonged engagement, triangulation, background qualifications and experience of the researcher and member checks were used as suggested techniques by Guba and Lincoln (1989). By having good rapport and trust with the participants in order to get sincere feelings of them, prolonged engagement was ensured. In addition, collecting data from various sources, multiple source triangulation was ensured (Lynch, 1996). As Patton (2002) stated, background, qualifications and the experience of the researcher was counted as another technique for credibility. Hence, for this study, researcher made use of her teaching experiences and qualifications for the purposes of data

collection. Finally, as Guba and Lincoln (1989) state, by asking participants to confirm what the researcher understood from what they wrote in their reflections and essays and said in the interview member check was performed as another way to ensure credibility.

Therefore, credibility which is defined as "the match between the constructed realities of respondents and those realities as represented by the evaluator" (Guba and Lincoln, 1989) was ensured with the above mentioned techniques.

Transferability: It is "the degree of similarity between sending and receiving contexts" (Guba and Lincoln, 1989). To ensure transferability, thick description was the suggested technique. By providing detailed description of context in which the study was conducted and the participants, the results of the study can be transferred to similar contexts.

Dependability: Guba and Lincoln (1989) define dependability as the "stability of data over time". Dependability audit is a common way to ensure dependability by providing detailed documentation of the process and the procedure of the study. In this study, the research design, its implementation, the data collection procedures and the analysis were all explained in a very detailed way to accomplish dependability.

Confirmability: It is defined as "being concerned with assuring data, interpretations, and outcomes of inquiries rooted in contexts and persons apart from the evaluator and are not figments of the evaluator's imagination" (Guba and Lincoln, 1989). Confirmability audit, triangulation, detailed descriptions, reflections are the common ways of ensuring this criterion. As discussed above, triangulation of different data sources, thick description of each section and the post facto notes of the researcher are helpful to maintain confirmability.

3.9.2. Psychometric Characteristics of Study Measures

Before making any interpretation of the quantitative findings, it should be assured that the collected data meet the normality assumption and study measures demonstrate psychometric characteristic of reliability and validity. Each is presented and discussed below.

3.9.2.1. Normality Assumption and Reliability

The purpose of checking normality assumption is to make sure that the distribution of data meets the criteria of normality so that parametric tests can be used to analyze it. One of the common ways of checking for normality is to perform Kolmogorov-Smirnov test. This test was run on all study scales and the results are presented in related tables.

Moreover, every scale was checked for its reliability through Cronbach's Alpha for the generalizability purposes. The results of reliability check were also demonstrated in the following section.

3.9.2.1.1. Teachers' Research Knowledge Questionnaire (adapted from Borg, 2009)

Within the questionnaire there are three different likert-type subscales. Normality was checked for each subscale. As suggested by Field (2000), significant value less than .05 indicates deviation from normality. As can be seen in the following table, this assumption was met by all subscales both before and after the instruction.

Table 3.5.
Normality test for teachers' research knowledge questionnaire

	Before the Instruction			After the Instruction		
	Kolmogorov-Smirnov			Kolmogorov-Smirnov		
	Statistics	Df	Sig.	Statistics	df	Sig.
Subscale 1	,202	17	,064	,185	17	,124
Subscale 2	,150	17	,200	,166	17	,200
Subscale 3	,198	17	,076	,092	17	,200

Second assumption is about the reliability of data which has to be met before data interpretation. In the questionnaire there are three likert type subscales. Their reliability values were calculated through Cronbach's Alpha. As can be seen in table 3.6, reliability value

decreased in the post-test analysis of subscales 1 and 2. The reason of this shrinkage can be explained with the nature of the subscales all of which require research knowledge in order to become certain in stating ideas. In other words, the ideas of the participants were expected to be informed compared to pre-instruction measurement. This is because the content of the instruction was based on teacher-research. Therefore, the more they learned, the more knowledgeable they become which in turn resulted in clearer ideas. As a result, this learning might have caused variance shrinkage.

Table 3.6.
Reliability of teachers' research knowledge questionnaire

	Before the Instruction	After the Instruction
	Cronbach's Alpha	Cronbach's Alpha
Subscale 1	,81	,73
Subscale 2	,82	,64
Subscale 3	,76	,94

3.9.2.1.2. Motivation for and Efficacy in Research Questionnaires

Normality assumption was also checked for these two questionnaires which were administered both before and after the instruction. As can be seen in table 3.7 these scales met this assumption in both pre- and post- administration.

Table 3.7
Normality test for efficacy in and motivation for research questionnaires

	Before the Instruction Kolmogorov-Smirnov			After the Instruction Kolmogorov-Smirnov		
	Statistics	df	Sig.	Statistics	df	Sig.
Efficacy Scale	.123	17	.200	.074	17	.200
Motivation Scale	.126	17	.200	.123	17	.200

Having met the normality assumption, reliability test was run for these two questionnaires to see how reliable data were to interpret. Table 3.8 illustrates that both questionnaires resulted in reliable values.

Table 3.8
Reliability of efficacy and motivation questionnaires

	Before the Instruction	After the Instruction
	Cronbah's Alpha	Cronbach's Alpha
Efficacy Scale	.92	.86
Motivation Scale	.86	.86

3.9.2.2.Construct Validity of Questionnaires

Construct validity is viewed as the principal term to evaluate the scales used to measure an identified construct because it involves a number of other forms of validity (i.e., content validity, convergent and divergent validity, and criterion validity) that are helpful in assessing the construct validity (Messick, 1980). Therefore, construct validity is considered as a process to assess the validity of a scale. Eventually, for construct validity to exist, it is necessary to have a strong association between the theoretical construct dealt with and the measures and interventions that are used to operationalize it, and a clear distinction between different constructs within the same instrument (Cronbach and Meehl, 1955).

3.9.2.2.1. Construct Validity of Motivation for Research Questionnaire

To examine the factor structure behind the scale, principle component method was performed and it was followed by varimax rotation (rotated component matrix) (see table 3.9). The factor analyses after the main administration resulted in two independent factors with factor loadings greater than 0.4. The logic behind suppressing loadings less than 0,4 is that, this cut-off point was suggested to be appropriate for interpretive purposes (Steven, 1992 as cited in Field, 2000).

Table 3.9
Rotated Component Matrix for Motivation for Research Questionnaire

	Component	
	1	2
Item 1	,409	
Item 2	,768	
Item 3		,642
Item 4	,819	
Item 5	,817	
Item 6	,649	
Item 7	,725	
Item 8	,833	
Item 9	,505	
Item 10	,399	
Item 11	,419	
Item 12	,730	
Item 13	,866	
Item 14		,581
Item 15		,634
Item 16		,411
Item 17		,719
Item 18		,473
Item 19		,596
Item 20	,619	
Item 21	,830	
Item 22		,660
Item 23		,798
Item 24		,693
Item 25		,648

Extraction Method: Principal Component Analysis.
Rotation Method: Varimax with Kaiser Normalization.

The results of the factorial analysis performed on the data gathered shows that all items which loaded under each category share the commonalities of the same construct. In other words, Items loaded under the first factor represent the characteristic of intrinsic motivation whilst other items share the characteristics of extrinsic motivation.

3.9.2.2.2. Construct Validity of Efficacy in Research Questionnaire

Principle component method was performed on the data gathered after the instruction and it was followed by varimax rotation (rotated component matrix) to examine the factor structure behind the efficacy in research scale (see table 3.11).

Table 3.10
Rotated Component Matrix for Efficacy in Research Questionnaire before the Instruction

	Component			
	1	2	3	4
Item 1	,766			
Item 2	,800			
Item 3				,721
Item 4	,704			
Item 5	,798			
Item 6		,460		
Item 7		,771		
Item 8			,586	
Item 9		,757		
Item 10		,516		
Item 11			,602	
Item 12				,400
Item 13			,874	
Item 14			,869	
Item 15			,636	
Item 16				,611
Item 17			,411	
Item 18				,577
Item 19		,612		
Item 20		,640		
Item 21		,587		
Item 22	,684			
Item 23	,514			
Item 24	,777			
Item 25	-,501			,426
Item 26		,725		
Item 27		,858		
Item 28		,766		
Item 29				,852
Item 30			,628	
Item 31			,710	
Item 32	,583			
Item 33		,769		

Extraction Method: Principal Component Analysis.
Rotation Method: Varimax with Kaiser Normalization.

Principal component factorial analysis of the Efficacy in Research questionnaire at the end of the instruction resulted in four independent factors with factor loadings greater than 0.4. Items 1, 2, 4, 5, 22, 23, 24 and 32 loaded under the first construct which is labeled as *the ability*

to follow the process of doing research. Items 6, 7,19, 20, 21, 26, 27, 27 and 33 under the second factor are entitled as *ability to deal with findings*. Moreover, third factor named as *instrumentation* consisted of items 8, 11, 13, 14, 15, 17. Finally, items 3, 12, 16 and 18 loaded under the fourth factor called *ability to understand and analyze data.* As a result of the analysis seven items (i.e. 9, 10, 28, 25, 29, 30, 31) were observed not to load under related constructs. This suggests rewording of the statements before further administration of the scale.

3.10. Analysis of Research Questions

For the first research question (Does INSET course affect teachers' research knowledge and practice? If so, how?), the analysis of quantitative data gathered from Teachers' Research Knowledge Questionnaire (adapted from Borg, 2009) was done through descriptive statistics. In addition, qualitative data gathered through essays, interviews and reflections were analyzed through open-coding and content analysis. Analysis was done both manually and through N-Vivo 10 software.

Quantitative data analysis of the second research question (Does INSET course affect teachers' motivation for and Efficacy in being engaged in teacher research? If so, how?) was done through descriptive statistics and Wilcoxon Signed Rank test on the data gathered through Motivation for Research and Efficacy in Research Questionnaires. The analysis of the data gathered through essays and interviews was the same with the analysis of the first research question.

In order to answer the third research question aiming at investigating the change in participants' teaching reflectivity, participants' weekly reflective tasks and journal entries were analyzed through the reflectivity criteria suggested by Hatton and Smith (1995). According to these criteria, the reflective writings of participants were evaluated in terms of descriptive writing, descriptive reflection, dialogic reflection and critical reflection. Descriptive writing was characterized by not being reflective at all. Instead, it consists of description of events

without providing any justification or reasons in the form of declarative sentences lacking personal indicators such as “I believe”, “I feel”, “because”. On the contrary to descriptive writing, other three criteria involve samples of reflective writing despite being different in the degree of reflection. In descriptive reflection, description of events are supported with justifications and reasons. An example statement can be as follows:

> “…I chose this problem because it seemed to be the most emergent one.”

Dialogic reflection demonstrates as a “stepping-back” from the events and explanation of the possible reasons of why an event happens. Moreover, the writer provides some alternatives to explain the actions. Examples for this type of reflection are:

> “While I had planned to use mainly written text materials I became aware very quickly that a number of students did not respond to these.”
>
> “Thinking about this now there may have been several reasons for this. A number of students, while reasonably proficient in English, even though they had been NESB learners, may still have lacked some confidence in handling the level of language in the text.”
>
> “Alternatively, a number of students may have been visual and tactile learners. In any case I found that I had to employ more concrete activities in my teaching." (Hatton and Smith, 1995)

Finally, critical reflection was defined as the awareness of the influence of historical, and socio-political contexts on the actions and events. In these statements, social, historical and political themes discriminate this type of reflection from dialogic reflection:

> “This shows the deficiencies in our education system.”
>
> “In the past, students were more respectful…”

In line with these criteria, each statement in ten reflective tasks of each participant was coded as DW (descriptive writing), DR (descriptive reflection), DLR (dialogic reflection) and CR (critical reflection). Each sentence on the documents was underlined and marked with these codes to show the type of reflectivity.

In order to ensure inter-rater reliability, another researcher also coded 30% of the documents. Prior to coding, one of the documents was analyzed together to negotiate on the criteria and agree on type of sentences that need to go under each criterion. After this negotiation phase, another document was randomly chosen and analyzed by both raters separately. Out of 27 sentences, 17 sentences were agreed on (63 %) and other 10 sentences were negotiated. Since the agreement rate was not that high, other randomly chosen 5 documents (30% of 17 documents) were analyzed again separately and this time out of 108 sentences, 79 sentences were agreed on and the percentage of agreement was found to be 73. The codes, which were not agreed on, were also negotiated and a consensus was reached. As a result, each statement in the reflective tasks (170 documents, 3953 statements in total) was coded by the researcher and 30% of the documents (51 documents) was coded by the other researcher. The agreement percentage was found 83%.

Each task had a different guideline, which might have affected the length of participants' writings and their reflectivity. That is why, in order to prevent this situation from being a confounding factor, the ratio of the number of statements under each criterion was taken for each task of the participants.

Finally, the fourth research question, which aims to investigate the contributions of INSET course and other courses to teachers' understanding of teacher research was investigated through the open-coding of the essays written by the participants and N-Vivo 10 software.

Table 3.11
Overview of Research Questions and Corresponding Procedure

Research Questions	Data Collection Instrument	Data collection time	Data Analysis
1. Does the INSET course affect teachers' research knowledge and practice? If so, how?	-Teachers' Research Knowledge Questionnaire (adapted from Borg, 2009) -Research knowledge and essays and interviews -Reflective Journals -Researcher's post-facto notes	In the first and last week of the INSET course	-Descriptive Statistics -Content Analysis (open-coding by Corbin & Strauss, 2008) -N-vivo 10
2. Does the INSET course affect teachers' motivation for and Efficacy in being engaged in teacher research? If so, how?	-Motivation for research questionnaire -Interviews to elicit participants' motivation for research -Efficacy in research questionnaire - Interviews to elicit participants' research Efficacy - Reflective Journals - Research knowledge and practice essays	In the first and final week of the INSET course	-Descriptive Statistics -Wilcoxon Signed Rank test - Content Analysis (open-coding by Corbin & Strauss, 2008) -N-vivo 10
3. Does the INSET course affect teachers' reflectivity in relation to teaching?	-Weekly reflective tasks	10 weeks during the course	- Reflectivity Criteria (Hatton & Smith, 1995)
4. What are the opinions of teachers about the relative contribution of the INSET and other courses to their understanding of teacher research and implementation?	Essays, interviews, reflective tasks, reflective journal entries	In the final week of the INSET course	Content analysis (Open-coding by Corbin & Strauss, 2008) N-vivo 10

CHAPTER 4

RESULTS

This chapter presents the findings related to EFL teachers' research knowledge and practice, efficacy in research, motivation for research, teaching reflectivity and their ideas related to relative contribution of INSET and other MA courses to their research knowledge and practice. The findings of each research question are presented in the following sections of this chapter.

4.1. Findings related to the first research question

The first research question aimed at investigating whether the INSET course affected the participating EFL teachers' research knowledge and practice. Research knowledge was tapped through two sections in Teachers' Research Knowledge Questionnaire (adapted from Borg, 2009); a) evaluation of scenarios, b) characteristics of research, and other sources consisting of research knowledge and practice essays written before and after the instruction, research knowledge and practice interview before and after the instruction, reflective journal entries of each participant, reflective tasks, efficacy in research interview before and after the instruction, motivation for research interview before and after the instruction and researcher's post facto notes. Moreover, research practice of the participants which was defined to have two dimensions: using research through reading publications (i.e. engagement with research) and doing research (i.e. engagement in research) (Borg, 2013, pg.3) was also sought through two sections of the questionnaire and the sources stated previously. Despite not having tapped through the questionnaire, participants' ideas about EFL teachers' research engagement and research conducted by academicians and teachers were investigated through other data sources stated in the above lines.

4.1.1. Research knowledge before the instruction

In order to investigate participating teachers' research knowledge, first, they were asked to evaluate ten scenarios, all including some form of inquiry, by indicating to what extent they felt each scenario represents a research case (see table 4.1 for findings) and second, to state the importance level of some research characteristics on a five point likert scale (5= very important, 1= unimportant) (see table 4.2 for findings).

Table 4.1
Percentage of teachers' assessment of scenarios before the instruction

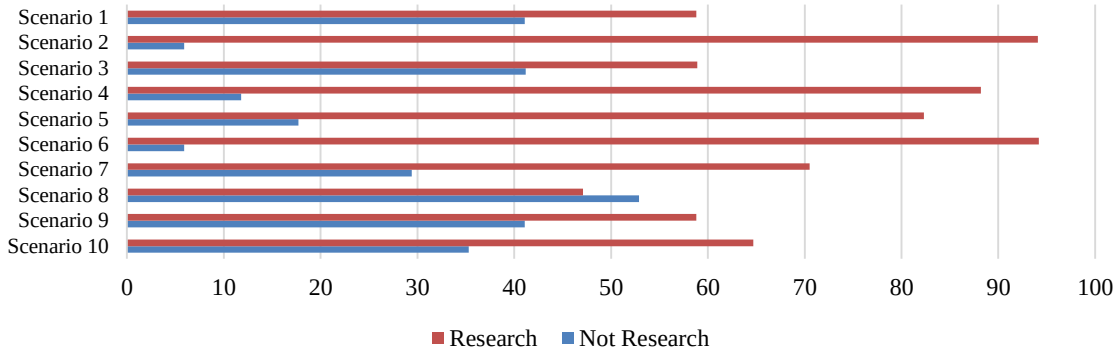


Table 4.2
Descriptive statistics of teachers' conceptions on the characteristics of research before the instruction

Characteristics	Mean	SD
1. Number of participants depends on the type of research.	3.76	1.43
2. A large volume of information is collected.	4.00	0.93
3. Experiments are used.	3.94	0.89
4. Hypotheses are tested.	4.35	0.99
5. Numerical information is analyzed statistically.	4.05	0.89
6. Questionnaires are used.	3.35	1.36
7. The researcher is objective.	4.64	0.60
8. The results apply to many ELT contexts.	3.17	1.23
9. The results are made public.	3.05	1.43
10. The results give teachers ideas they can use.	4.41	0.61
11. Variables are controlled.	3.94	0.89
12. Verbal data is analyzed with content analysis.	4.00	0.70
13. For qualitative research data can be collected through interviews.	3.76	0.97
14. For quantitative research data can be collected through questionnaires.	3.47	1.00

Findings of the scenario evaluation section were presented in two categories for every scenario – not research (including definitely not research and probably not research) and research (including probably research and definitely research).

As table 4.1 presents, before the instruction, three most highly rated scenarios as research were 2 (94.1%), 4 (88.2%) and 6 (94.2%) (see appendix A). Scenarios 2 and 6 are examples of teacher-research both of which were conducted by teachers following different methods. In scenario 2, a teacher tried a new approach to teaching writing over a period of two weeks. He collected data through recording and collecting students' written work. In this scenario, participating teachers might have been affected by the words *samples, analyzed* and *results*. In scenario 6, again, another teacher tested the effectiveness of two methods in her class. However, in order to see the effectiveness, a pre-test post-test design was applied which is highly associated with academic research despite being conducted by teachers. Scenario 4, on the contrary, includes elements of 'scientific research' such as *large sample* and *making use of statistics* to do the data analysis. The researcher, in this scenario, was an academician and the results were written in the form of a research article. All these three scenarios include a systematic process in which some steps such as data collection and analysis were accomplished to answer a research question.

On the contrary, the three least highly rated scenarios before the instruction were numbers 1 (59%), 3 (59%) and 8 (48%). The common point of these three scenarios was that they include only one or two steps of research cycle. Specifically speaking, in scenario 1, the teacher makes notes in her diary about a problem in her class and in scenario 3, a paper was written after an intensive literature review.

In addition to scenario evaluation section, findings of the participants' ratings of research characteristics showed that the most highly rated characteristic was that 'the researcher is objective' (M=4.64), followed by that 'the results give teachers ideas they can use' (M=4.41) and 'hypotheses are tested' (M=4.35).

The participants' research knowledge before the instruction was also tapped through other sources. Data coming from these sources revealed that their knowledge of research includes its

description as; (1) a way to solve problems (N=7) and (2) it is systematic (N=3). Data also indicates their knowledge of (1) steps (N=13), (2) data collection tools (N=10) and (3) data analysis (N=3).

To begin with, participants defined research as a problem solving process as can be seen in the following quotations.

> Research is to focus on a problem, issue or hypothesis to find reasonable solutions to them. (Pre-instruction, Research Knowledge and Practice Essay).

> When you have a problem, you ask people some questions with surveys and try to find a solution. (Pre-instruction, Research Knowledge and Practice Interview).

> Reaching a solution for a problem motivates me to do research (Pre-instruction, Motivation for research interview).

They also stated research as a systematic and data collection process involving some instruments. This finding supports the results of participants' assessments of scenarios which were rated most highly. Following quotations illustrate these aspects.

> Collecting data in a systematic way can be labelled as research. (Pre-instruction, Research Knowledge and Practice Essay)

> When you need some information about anything, you do research. (Pre-instruction, Research Knowledge and Practice Interview).

> The only thing I know is that it involves many steps to be followed systematically (Pre-instruction, Efficacy in research interview).

The participants also mentioned some of the data collection tools among the characteristics of research. Among the tools they mostly talked about are; (a) questionnaires (N=4), (b) surveys (N=6), (c) interview (N=4) and (d) observation (N=4).

> Teachers should ask more experienced colleagues, observe each other's classes (Pre-instruction, Research knowledge and practice essay)

> Data collection methods can be asking questions, doing surveys either in the written or verbal form (Pre-instruction, Research Knowledge and Practice Interview).

> As far as I know, it is necessary to collect lots of data through surveys, questionnaires. It requires time (Pre-instruction, Motivation for research interview).

Participants also identified some steps of research (N=13) as a part of their research knowledge. The five common steps are; (1) data collection (N=11); (2) posing a problem (N=7); (3) conclusion (N=7); (4) data analysis (N=7); (5) doing literature review (N=5). Following excerpts explain their statements.

> Research consist of some steps. These steps are; defining the problem, looking for what has been done before about similar situations, getting data with suitable instruments, analyzing the data gathered and getting a conclusion from these results. (Pre-instruction, Research Knowledge and Practice Essay)

> As for the steps of a research, you need to have a problem, gathered information and do the statistical analysis. (Pre-instruction, Research Knowledge and Practice Interview)

> I guess I can collect some information, but about the analysis I need help (Pre-instruction, Efficacy in Research Interview).

As a final aspect, they stated statistical analysis (N=3) as the only way of data analysis in their statements. This supports their rating of 'hypothesis are tested' item highly which can be done through statistics. Following excerpts illustrate this finding:

> Data can be analyzed through statistical packages like SPSS (Pre-instruction, Research Knowledge and Practice Essay).

> Statistical analysis can be used (Pre-instruction, Research Knowledge and Practice Interview).

> I don't know statistics, that's why I cannot say I am capable of data analysis (Pre-instruction, Efficacy in research interview).

Findings show that the participants' construct of research appeared as *a general abstract term*. All these findings are parallel to their research knowledge elicited through scenario evaluation and their ratings of research characteristics. Hence, these findings, as indicated in the findings of the questionnaire, show that they had some research knowledge before attending the INSET course. Specifically speaking, they knew that research is a way to solve problems systematically by collecting data following some steps. They also knew that data have to be analyzed however they thought of statistical analysis as the only way to do the analysis. However, while identifying the steps, posing a problem which is the first step, was stated by only seven participants and only some of the steps were mentioned. Additionally, among the data collection instruments, they mentioned a few most common ones. On the other hand, by

stating the importance of research results to give ideas for teachers, they fore fronted the pragmatic perspective of research (Borg, 2013). It is also noteworthy that although they thought that research can be done by both academicians and teachers, participants' understandings of research was incomplete in the sense that they did not know specific characteristics of academic and teacher research. Therefore, it can be concluded that the participants had the construct of research as a general term without having the details and sub-constructs related to it.

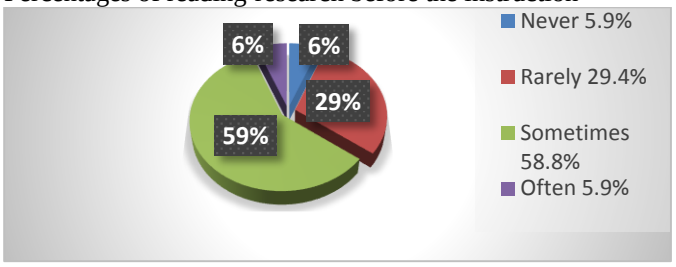
4.1.2. Research practice before the instruction

As Borg (2003, 2006, 2009) suggests, practicing research involves reading published research and conducting research by engaging in the research process actively. Therefore, besides participants' research knowledge, their engagement with research (through reading) together with the reasons of being engaged and not being engaged with research was investigated. Moreover, as the second component of research practice, the participants' engagement in research (by doing) with the reasons of doing and not doing research were explored through questionnaire items and other sources. Additionally, participating teachers' ideas about EFL teachers' engagement in research and the research conducted by academicians and teachers were tapped through only other sources before they attended the INSET course.

4.1.2.1. Engagement with research

The questionnaire item tapping participating teachers' engagement with research required them to state how often they read published research through a questionnaire item. Figure 4.1 summarizes their responses.

Figure 4.1
Percentages of reading research before the instruction



As can be seen in figure 1, 35.3 % of the participants indicated *rarely or never* reading research. These participants were provided with a set of reasons in the questionnaire and asked to choose their reasons. In the following table, the frequency of reasons are given.

Table 4.3
Frequency of reasons for not reading research before the instruction

Reasons		**F**
1.	I am not interested in research	0
2.	I do not have time	1
3.	I do not have access to books or journals	1
4.	I find published research hard to understand	3
5.	Published research does not give me practical advice for the classroom	5

Data coming from other sources also revealed similar results with the findings given in table 4.3. Essay and interview data showed that participants *never or rarely* read research mostly because of; (1) not offering practical suggestions and solutions (N=3) and (2) being difficult to understand (N=3). The following excerpts illustrate these findings:

> When the topics are related to real teaching problems, I like them. However, if it is just about numbers, hypothesis, I don't like them and generally think they are not useful for me and skip them (Pre-instruction, Research Knowledge and Practice).

> Once, one of my colleagues gave me an article and told that there are some ideas to apply in the classroom. However, I couldn't understand because of the statistics and the language used. So, I gave up reading (Pre-instruction, Research Knowledge and Practice Interview).

It is also clear that the participants have concerns about the applicability of findings in those articles to their specific classroom realities.

> The results of a research conducted by others may not be suitable for my classroom (Pre-instruction, Motivation for Research Interview).

> Teachers are more practical by being in the teaching atmosphere than linguists and their products (Pre-instruction, Research knowledge and practice interview).

Other reasons fore fronted by the participants are; not enjoying (N=2) and not having enough time (N=2).

> I cannot read anything. I do not have time (Pre-instruction, Motivation for research interview).

> Reading, searching for information are all requiring time and energy. That's why, I cannot. If I have time I prefer doing extracurricular things (Pre-instruction, Research knowledge and practice interview).

On the other hand, 64.7 % appeared to be reading published research *sometimes* or *often*. The reasons of reading research were tapped through other sources. Data revealed that (1) professional development (N=2), (2) learning different ideas (N=3); and (3) comparing own context with others (N=2) are the reasons of reading published research as can be seen in the following quotations:

> I prefer reading ELT Journal. It helps me see different points of views, which help me find out new ways to develop my way of teaching and enlarges my horizon (Pre-instruction, Research Knowledge and Practice Essay).

> You can see what other people are doing, what kind of problems they have (Pre-instruction, Motivation for Research Interview)

> You learn about different subjects and this contributes to your development (Pre-instruction, Research Knowledge and Practice Interview)

In addition, data coming from other sources revealed findings about (1) access to published research (N=11) and (2) types of journals preferred (N=7). Although accessing published research is a common problem that teachers complain, since the majority of the participating teachers in this study are university instructors, they stated having access to research by the help of their institute's online libraries.

Moreover, those who said that they were reading research were asked to identify what kind of research they read about. Among the journals, participants (N=7) preferred reading *ELT Journal* and *TESOL Quarterly*. However, online *teaching forums* where teachers discuss their

problems and solutions were also favored by 3 participants. When the individual participant's statements were analyzed, 3 participants out of 11 who stated *sometimes* and *often* reading research, mentioned reading forums because of the practical ideas suggested by other teachers. This finding showed that some of the participants were actually talking about reading online discussion forums as research articles. In other words, as the following quotation shows, teachers preferred reading articles or discussions which provide some suggestions and solutions to their problems instead of academic ones which are full of theoretical information.

> I read TESOL Quarterly and ELT Journal but the information in these journals is far from reality. Checking teacher forums and sharing other teachers' problems and solutions is more beneficial due to practical ideas discussed there (Pre-instruction, Research Knowledge and Practice Essay).

> I read sometimes but as I told they are generally not applicable (Pre-instruction, Motivation for research interview).

> They are helpful for me though sometimes they do not provide practical ideas what I look for exactly (Pre-instruction, Research Knowledge and Practice Interview).

The following quotation is worthy to see a sample forum they preferred.

> I prefer forum www.eltpool.forum where teachers share their experiences and make discussions about their problems of English teachers (Pre-instruction, Research Knowledge and Practice Essay).

4.1.2.2. Engagement in Research

Participants were also asked how frequently they conducted research on a scale of 'often' to 'never' before the instruction. As table 4.4 shows out of 17 participants, five participants stated *sometimes* or *often* doing research. 12 participants stated *rarely* or *never* doing research.

Table 4.4
Frequency of doing research before the instruction

	F	%
Never	1	5
Rarely	11	64
Sometimes	4	23
Often	1	5

These five participants were asked to choose their reasons of doing research among a set of reasons provided in the questionnaire. The results are given in table 4.5.

Table. 4.5
Frequency of reported reasons for doing research before the instruction

Reasons	**F**
As a part of a course I am studying on.	5
Because I enjoy it.	2
Because it is good for my professional development.	5
Because it will help me get a promotion.	0
Because my employer expects me to.	0
Because other teachers can learn from the findings of my work.	0
To contribute to the improvement of the school generally.	0
To find better ways of teaching.	5
To solve problems in my teaching.	5

Findings in table 4.5 were also supported with data from other sources. When they were asked to state their reasons for doing research, they mentioned (1) helping students learn better (N=2), (2) finding new techniques (N=2) and (3) finding solutions to problems (N=2) as the reasons. Following excerpts show these reasons:

> I try to do research to improve my teaching and learn new things in my field. Doing research also gives me a deeper understanding of my field. (Pre-instruction, Research Knowledge and Practice Essay).

> The feeling of helping students learn better makes me do research (Pre-instruction, Motivation for research interview).

Even though participants pointed out doing research in the questionnaire item, it does not mean that they were doing academic or teacher research. The analysis of each of these 5 participant's research practice showed that among the 5 participants who stated *sometimes* or *often* doing research, only one of them claimed engaging in research actively (see appendix???). The one who stated *often* doing research explained that he was reading a lot on the internet which shows that what he called doing research was reading discussion forums as illustrated in the following quotations:

> I practice doing research, as a teacher. Actually, research is everywhere in a teacher's life. For example, when you are reading an article, or a newspaper you realize or come across with some different information and that makes you curious, and you want to find out more information about that word or topic, information you are reading. Curiosity lets you do research (Pre-instruction, Research Knowledge and Practice Essay).

> I sometimes do research and look for some additional information on the internet (Pre-instruction, Research Knowledge and Practice Interview).

On the other hand, other 4 participants who pointed out that they were *sometimes* doing research explained that they had done research as a requirement of a course during BA education or started doing but not completed. These participants stated that:

> I started a research project but I couldn't finish it because of external factors such as loaded schedules (Pre-instruction, Research Knowledge and Practice Essay).
>
> I did as a requirement of a course when I was at the university. It was very complicated and difficult. I remember I gave the questionnaires to high school students during my practice teaching. And I asked a person who knew statistics to analyze it (Pre-instruction, Research Knowledge and Practice Essay).

When the research knowledge of each of these five participants was analyzed, it was found that their knowledge of research focused mainly on data collection process to find solutions.

As mentioned earlier and indicated in table 4.4, 12 teachers out of 17 stated *rarely* or *never* doing research. Table 4.6 indicates their reasons.

Table 4.6
Frequency of reported reasons for not doing research before the instruction

Reasons	**F**
I do not know enough about research.	9
My job is to teach, not to do research.	0
I do not have time to do research.	5
My employer discourages it.	0
I am not interested in doing research.	3
I need someone to advise me but no one is available.	5
Most of my colleagues do not do research.	3
I do not have access to the books and journals that I need.	1
The learners would not cooperate if I did research in the class.	2
Other teachers would not cooperate if I asked for their help.	1

The most frequently identified reasons in the essays and interviews were: (1) not having enough time (N=6), (2) not knowing much about research (N=5) and (3) loaded schedules (N=4). In addition to these reasons, difficulty of doing literature review (N=2) and data analysis (N=2) were elicited as other reasons. Commonly stated reasons can be seen in the following excerpts:

> I really do not want to do research because I am loaded with 30 full hours of teaching (Pre-instruction, Research Knowledge and Practice Interview).

I haven't done any research before and I do not know how to conduct a research. I need mentoring (Pre-instruction, Efficacy in Research Interview).

As far as I know, it is necessary to collect lots of data through surveys, questionnaires. It requires time. If I have time, I am sure I do willingly. But I am teaching 25 hours at school and may be twice of this time at home (Pre-instruction, Motivation for Research Interview).

I don't practice research because it takes time and effort (Pre-instruction, Research Knowledge and Practice Essay).

4.1.2.3. Participants' ideas about EFL teachers' research engagement

Data gathered about participants' ideas about EFL teachers' research engagement indicates that they mostly (N=15) thought that it is a necessity for EFL teachers to be research engaged. (1) Solving problems in the teaching context (N=15), (2) self-improvement (N=5) and (3) better teaching (N=6) appeared as the most frequently mentioned reasons for this necessity to be engaged in research as indicated in the following excerpts:

Teachers should not be seen as mere operators but they should be accepted as doctors or lawyers who are able to use their professional experiences, combine them with new ways of solutions to problems to go closer to perfectness, so teachers should do research for their self-improvement (Pre-instruction, Research Knowledge and Practice Essay).

They should do research especially for the subjects which they are not familiar with for their development (Pre-instruction, Research Knowledge and Practice Interview)

It helps reaching a solution for a problem. So, every teacher should give a try (Pre-instruction, Motivation for Research Interview).

This result indicates the participants' awareness about the importance of EFL teachers' research engagement and their belief for the contribution of research to their teaching.

4.1.2.4. Participants' ideas about research done by teachers and academicians

Data also indicated participants' ideas related to research conducted by academicians and teachers. The majority of the participants (N=9) thought that teachers and academicians should conduct different types of research due to the following reasons; (1) academicians are not practitioners (N=4), (2) academicians are more theoretical whereas teachers look for

practical solutions (N=3), and (3) academicians may not give implications for teaching (N=2). These ideas can be clearly understood in the following quotations:

> Teachers are hands-on people while academicians are dealing with theory more. If they do not teach actively, they may be interested in just theoretical hypotheses and may not give effective implications (Pre-instruction, Research Knowledge and Practice Essay).

> They cannot do the same type of research because their contexts are different. One works at a university, the other practices active teaching (Pre-instruction, Research Knowledge and Practice Interview).

> The writers of these articles are generally university professors, so we cannot expect them to research our problems. They generally deal with more scientific issues (Pre-instruction, Motivation for Research Interview).

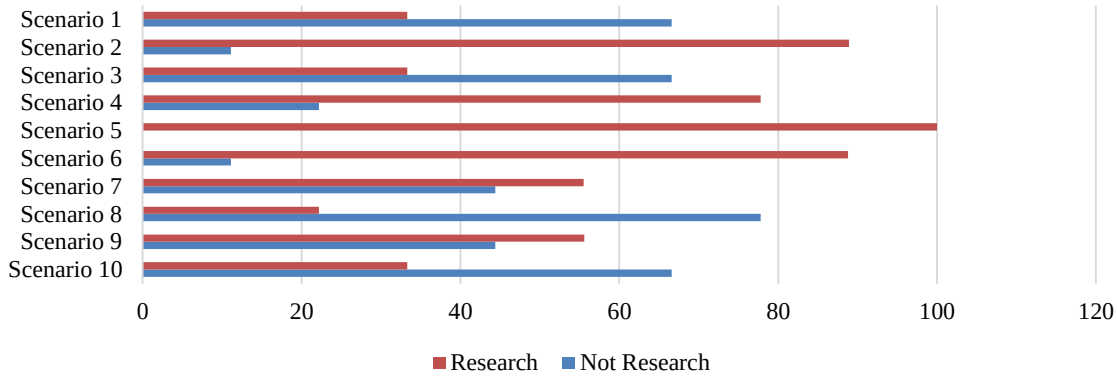
These results also provide further support for the teachers' reasons for not reading published research. As stated previously, the participants who stated not reading research, gave the *difficulty in understanding* research articles as one of the reasons. Moreover, as mentioned earlier, participants preferred reading forums because they believe that there were not enough practical ideas in published research. In other words, the participating teachers believe that academicians hardly provide direct practical implications relevant to practitioners' problems. Hence, they actually pointed out the gap between academic researchers and the *knowers of the story* - the teachers (Freeman, 1999).

To sum up, the findings in relation to teachers' engagement in and with research before the instruction showed that even though the majority of the participants felt that teachers' should engage in research for solving problems and better teaching, some of them stated that they could not do research because of time limitations, loaded programs and not knowing much about conducting research. On the other hand, majority of the participants stated reading published research by accessing their institutions' libraries. However, as mentioned earlier, some of them preferred reading discussion forums for the reasons stated above. Most of the participants also believed that academicians and teachers should conduct different types of research because of the distinctions in their purposes.

4.1.3. Research knowledge during and after the instruction

In order to see whether the INSET course had any effects on the participants' research knowledge, they were first asked to evaluate the same ten scenarios in the questionnaire (see table 4.7) and state the importance level of some research characteristics on a five point likert scale (5= very important, 1= unimportant) (see table 4.8).

Table 4.7
Percentage of Teachers' assessment of scenarios after the instruction



Before the instruction, the most highly rated scenarios were 2 (% 94.1), 4 (% 88.2) and 6 (% 94.2) (see table 4.1). Among these scenarios, the researcher in number 4 was a university professor and the report was written in the form of an academic article on the contrary to numbers 2 and 6 in which teachers were the researchers. As can be seen in table 4.6, after the instruction, scenarios 5 (100%), 2 (88.9%), and 6 (88.8%) were the most highly rated scenarios as research. On the contrary to their evaluations before the instruction, they rated scenarios which only include teachers as researchers highest after the instruction. All the participants evaluated the fifth scenario as either 'probably research' or 'definitely research'. In this research case, teachers experience improving classroom management in their own classes after observing each other's classes. They also publish their results in a teachers' association newsletter. Scenarios 2 and 6 were rated highly although they were not rated as high as before the instruction. Both scenarios include teachers' experimental use of particular teaching

methods. Therefore, participants might have looked for a structured teacher-research circle in which some steps are followed and included.

Data coming from follow-up interview in which participants were required to give reasons for their choices may help to better understand reasons of their choices for the scenarios.

> Classroom management is a common problem we all suffer. And these teachers try to improve this skill through doing a research by observing, collaborating and sharing. That's why it is a research (Follow-up interview).

On the other hand, the three least highly rated scenarios after the instruction were numbers 1 (66.6%), 3 (66.6%), 8 (77.8%) and 10 (66.6%) as it was the case before the instruction (see table 4.1). Responses in the follow-up interview revealed a number of common influences on their assessments. Lacking the necessary steps of teacher-research, insufficiency of the amount of data collected are the common factors stated. To illustrate, some of the participants made the following comments on scenarios 3 and 8 in the follow-up interview:

> Scenario 3 includes only an intensive process of literature review. Even though it can be a step in teacher-research, it is itself is very inadequate. So, I cannot say it is research. (Follow-up interview).

> For me, the most important component of teacher-research which makes it a real research is the application of research findings. However, when only five out of thirty students respond to your request and the teacher uses this limited data to do changes, we cannot talk about credible research in scenario 8 (Follow-up interview).

Another important finding is that 66% of the participants felt that library-based inquiry was not a research case in scenario 3. So, there appeared no difference in their evaluations before and after the instruction.

In addition to scenario evaluation, the participants were asked to decide to what extent the provided characteristics of research were important. In this section, the statements were evaluated on a five point likert scale (5= very important, 1= unimportant). As can be seen in table 4.8, most highly rated characteristic of research is 'results give teachers ideas they can use' (M=4.55), followed by 'results are made public' (M= 4.33) and 'number of participants

depends on type of research' (M=4.33). Before the instruction, the participants rated 'the researcher is objective (M=4.64), hypothesis are tested (M=4.41) and the results give teachers ideas they can use (M=4.41) as important characteristics of research. Therefore, it can be concluded that, both before and after the instruction, the participants agreed that research results should give them ideas to apply in their own contexts. Moreover, by not indicating items such as 'hypotheses are tested' as important after the instruction, it can be stated that their awareness regarding teacher-research and its characteristics raised.

Table 4.8
Descriptive statistics of teachers' perceptions on the characteristics of research after the instruction

Characteristics	**Mean**	**SD**
1. Number of participants depends on the type of research.	4.33	1.24
2. A large volume of information is collected.	4.22	1.27
3. Experiments are used.	4.00	1.09
4. Hypotheses are tested.	4.11	0.49
5. Numerical information is analyzed statistically.	4.22	1.22
6. Questionnaires are used.	3.00	1.20
7. The researcher is objective.	4.00	0.77
8. The results apply to many ELT contexts.	3.55	1.27
9. The results are made public.	4.33	1.11
10. The results give teachers ideas they can use.	4.55	0.51
11. Variables are controlled.	4.11	0.95
12. Verbal data is analyzed with content analysis.	4.22	0.71
13. For qualitative research data can be collected through interviews.	4.11	1.34
14. For quantitative research data can be collected through questionnaires.	3.77	1.16

Findings from other sources indicated that participants elaborated on the following as part of their research knowledge: (1) data collection methods (N=16); (2) steps of research; (3) data analysis (N=12); (4) characteristics of research (N=8).

Data Collection Methods

To begin with, data showed that participants' knowledge of the data collection instruments became more elaborated after the instruction. In other words, even though *questionnaire, survey, interview* and *observation* were the instruments stated before the instruction, after the instruction they mentioned; (a) interview (N=13), (b) observation (N=13), (c) questionnaires (N=10) and (d) journals (N=8); (e) post facto notes (N=4); (f) tests (N=3), (g) diaries (N=3) and (h) recordings (N=2). Following excerpts show this expansion:

Data can be gathered through many ways such as written documents which are field-notes, journals and reflections (Post-instruction, Research Knowledge and Practice Essay).

For spoken, observed and written data I can say I am capable. I mean, I know how to keep field notes, journals and how to collect data through recording (Post-instruction, Efficacy in Research Interview).

I mainly collected data from journal entries of students for each activity that I applied, also from interview with them. Asking students to write journal entries was hard; therefore I tried to guide them with questions each time so that they can answer (Reflective Journal, Entry 4).

Being engaged in such a research, trying to understand the students and finding solutions could only be done through interviews (Post-instruction, Reflective Journal, 6th Entry).

Following table shows the individual analysis of participants' knowledge expansion about data collection methods with a sample statement.

Table 4.9
Sample knowledge expansion about data collection instruments

	Before the Instruction	After the Instruction
Knowledge Expansion	Teachers' own experience, articles surveys and consultation with colleagues	Diaries, journals, essays, logs, observation interview, recording, questionnaire

Steps of Research

Additionally, participants stated some steps of research namely; (a) statement of problem (N=12); (b) data collection (N=12); (c) literature review (N=10); (d) data analysis (N=9); (e) sharing the results (N=8); (f) interpretation of data (N=7). Other than these steps, planning the action (N=6), observing (N=3) and reflecting on the process (N=3) were also counted among the steps of research after the instruction. Despite mentioning some steps of research before the instruction (i.e. data collection, posing a problem, conclusion, data analysis and doing literature review), it is for sure that participants expanded their knowledge of research steps. To illustrate, participants listed sharing results and interpretation of data among steps. Moreover, even though posing problem was not counted as the first step, it was stated to be the first step in the research cycle by the participants after the instruction. The potential reason of mentioning every

single step of the process can be their experiencing and trying to follow these steps while doing research throughout the semester as a requirement of the INSET course.

These findings also support those found in scenario evaluation section. In the most highly rated scenarios (see table 4.7), the common characteristic of the scenarios was including some steps of research such as data collection and analysis. Following quotation illustrates this result:

> Identifying the problem, developing a draft, making literature review, and reading as many articles, journals as possible to get information, choosing research procedures, materials, methods that will help researcher to find out his way, choosing analysis methods (Post-instruction, Research Knowledge and Practice Essay).

> The steps are in a cycle. So it doesn't mean that when we follow all steps we will reach the solution. We may need to restart the cycle. Cycle starts with a problem and ends with sharing results (Post-instruction, Research Knowledge and Practice Interview).

> After taking this class, I learned to solve the potential problems by doing literature review, gathering data and conducting an action (Post-instruction, Reflective Journal, 6th Entry).

> It is important to work with someone because it requires lots of steps starting from problem statement and going till sharing what you have done (Post-instruction, Motivation for Research Interview).

> We should compose a research question, nature of which changes according to the research type we conduct. Then we should read the material available in the literature and come up with a hypothesis or proposition for qualitative research. Treatment should be applied. Then by using an appropriate way of data collection we gather our data and analyze them. The next step is to interpret the data and write findings. Now we can make it public (Post-instruction, Research Knowledge and Practice Essay).

> You need to start with a problem, seek for knowledge in the literature, plan an action, implement and observe the action and reflect on the process after interpreting your findings (Post-instruction, Research Knowledge and Practice Interview).

As a final step of research, participants mentioned data interpretation after the instruction. This is the only category that was mentioned by the minority (12%) of the participants before the instruction. After the instruction 5 (31%) more participants mentioned the necessity of data interpretation as a step in research cycle. In other words, data, in general, showed that despite being mentioned by a few participants before the instruction, more participants expressed their knowledge about data interpretation. The reason of adding 'data interpretation' into their

research knowledge may be because of the hands-on experience they were required to do through weekly tasks. In one of these tasks, in the end of their research practice, they were asked to interpret whatever data they gathered. As a result, they stated that interpretation can be done through (1) inferring meaning from results (N=3) and (2) comparing results with that of previous research (N=2). In the following excerpts, it can be inferred that these strategies are the ones they applied in their own research practice. They also mentioned that data interpretation requires strong background knowledge.

> One should have enough background knowledge because she should infer meaning from the results based on theories (Post-instruction, Research Knowledge and Practice Essay).
>
> It was good to see that I could make data meaningful (Reflective Journal, Entry 5).
>
> I know how to interpret data in qualitative research because data are all verbal and I can understand (Post-instruction, Research Knowledge and Practice Interview).
>
> Actually, data interpretation is not very different from analysis. Because while we are analyzing, the results mean something. They are not like numbers in teacher-research (Post-instruction, Efficacy in Research Interview).

From these results it is understood that participants were all referring to verbal data interpretation, not numerical data interpretation. This also shows the direction of their knowledge expansion after the instruction.

The individual analysis of participants' statements demonstrated the expansion in their construct related to steps of research as indicated in the following table.

Table 4.10
Sample knowledge expansion in steps of research

	Before the Instruction	*After the Instruction*
Knowledge Expansion	Observe and collect data	Research question, collecting data, interpretation, sharing results

Data Analysis

Furthermore, data showed that participants' knowledge of data analysis was also elaborated after the instruction. In other words, although statistical analysis was the only analysis technique they could think of before the instruction, participants stated (1) coding and categorizing (N=10); (2) content analysis (N=3) and (3) statistical analysis (N=3) methods after the instruction. It is important to note that participants focused on the type of research as the criterion to decide on the analysis. Their knowledge of data analysis is demonstrated in the following excerpts.

> There are ready computer programs like SPSS, Excel to analyze numeric data, which can be used for both qualitative and quantitative. On the other hand, content analysis is very common for qualitative research (Post-instruction, Research knowledge and practice essay).
>
> After completing the interviews, I had a coding and categorizing process on the transcriptions (reflective journals, Entry 4).
>
> We learned open and pattern coding for teacher-research which is mainly qualitative. In quantitative research there are different statistical analysis procedures such as, t-test, descriptives (Post-instruction, Research Knowledge and Practice Interview).
>
> Even though the statistical analysis is the common procedure for data analysis, categories and codes were used in the verbal data analysis (Post-instruction, Research Knowledge and Practice Interview).
>
> I am capable of using qualitative methods such as open coding, however if the numbers are on stage I cannot do statistics (Post-instruction, Efficacy in research interview).

Individual participants' statements show the expansion of knowledge in this specific construct.

Table 4.11
Sample knowledge expansion in data analysis methods

	Before the Instruction	*After the Instruction*
Knowledge Expansion	Statistics and formulas through programs such as SPSS or Excel	Analysis with some basic statistics as well as coding and categorization.

Characteristics of Research

Moreover, participants' knowledge of the characteristics of research after the instruction included (a) a systematic process, (b) a problem solving process (N=7); (c) being a way of

professional development (N=6) despite having included only its being a problem solving process and systematic before the instruction. The following excerpts illustrate these findings:

> Research is a systematic inquiry in which the researcher tries to find a solution to the problem, to gain awareness about what is going on inside the classroom or just to have better insight about the things that she does (Post-instruction, Research Knowledge and Practice Essay).

> Research is the process of collecting data by following some systematic stages in order to find a solution to a problem in the classroom (Post-instruction, Research Knowledge and Practice Interview).

> I am capable of using research as a systematic inquiry with all its requirements to solve my problems (Post-instruction, Efficacy in research questionnaire).

In addition, as illustrated in the following excerpts, the relation between research and professional development was especially mentioned by the participants as another characteristic after the instruction.

> It is a process in which researchers or teachers try to find out solutions while improving professionally (Post-instruction, Research Knowledge and Practice Essay).

> It was good to feel that you were doing something that had direct effects on your own classroom which gave me insight in my teaching and a pleasure of success and enjoy of producing something working (Post-instruction, Reflective Journal, Entry 6).

> Research also contributes to their professional development because you learn while you are in the circle of teacher research (Post-instruction, Research Knowledge and Practice Interview).

> I saw that I can change something. I don't need anyone to consult anymore. I feel that I really improved professionally. (Post-instruction, Motivation for Research Interview).

Analysis of each participant's responses in relation to characteristics of research illustrate the elaboration of this knowledge base.

Table 4.12
Sample knowledge expansion about characteristics of research

	Before the Instruction	*After the Instruction*
Knowledge Expansion	To learn about something more or to find solutions to problems	Systematic inquiry to solve a solution to the problem, to gain awareness about what is going on inside the classroom or just to have better insight

In addition to above analysis, data gathered throughout the period of instruction helped to understand the time the participants started to use some specific terms and elaborate on constructs they had before the instruction. To illustrate, data from reflective tasks revealed that

participants started using the terms ‘teacher-research’ and ‘teacher-researcher’ (N=8) and the benefits of teachers’ research engagement (N=12) starting from the second reflective task in week 3 as can be seen in the following excerpts.

> As teachers we should stand and take an action for the problems we encounter in the classroom. As a teacher researcher, we can build on what we know and the most importantly we can bridge the gap between understanding and action by merging the roles of researcher and practitioner (Reflective Task 2, Week 3).

> Being involved in research is of utmost importance for a language teacher if he/she wants to improve him/herself and keep up with the change (Reflective Task 2, Week 3).

> The role of teachers’ engagement in research is very important as it enriches their teaching and learning and it contributes to their students and their schools a lot (Reflective Task 2, Week 3).

> Academicians conduct researches in the field, they get their results and publish them and try to get points to become an associate professor and the most importantly they do not care about the teaching process although it is a totally prolonged process. The only thing they focus is the result of their research (Reflective Task 2, Week 3).

> I think the research in class has different importance from other kind of theoretical research. Although the research based upon some theoretical view and covering broad range of participants has good implications for general understanding, their application in the real classroom environment generally seems to be impossible or improper according to the changing profile of students and their needs. Therefore, research conducted by the teacher for the specific profile of students has direct implications in the class because it is directed to specific goals and needs of students (Reflective Task 2, Week 3).

So, it can be concluded that participants’ knowledge of research expanded and they elaborated on the sub-constructs such as data collection methods, steps of research, characteristics of research and data analysis starting from the second week of the instruction. That is to say, there appeared no difference between the research knowledge of participants before and after the instruction; however, the existing knowledge elaborated and expanded at the end of the instruction. More specifically, although they most frequently mentioned questionnaires, survey, observation and interview as the data tools, after the instruction they added other sources like written reflective journals and post facto notes in their knowledge base. Moreover, although the participants defined the characteristics of research as a systematic problem solving process as part of data collection before the instruction, they emphasized the close relationship of this process with professional development to gain insight into their

teaching. Therefore, research started to mean as a way of professional development for them. Furthermore, although *data interpretation* and *sharing results* were not mentioned among the steps of research before the instruction, they added these steps into their definition of research after the instruction.

In conclusion, the findings summarized above indicate that the participants' knowledge of research was elaborated and they started to mention the concept of teacher-research although they did not make a clear distinction between the processes of teacher-research and academic research.

In addition, when the academic background of the participants such as their BA education and the courses they took before the INSET course and while taking the INSET course are considered, it is not easy to claim that they learned everything related to research in the INSET course. Therefore, the readings and requirements of all these courses in the program must have contributed to their research knowledge. However, although they had some knowledge of research before the instruction, it is obvious that they elaborated more on the construct of research, expanded their knowledge by including sub-constructs and creating a more detailed structure of research as a construct with the INSET course.

4.1.4. Research practice after the instruction

Participants' engagement with research (through reading) and in research (by doing) along with the reasons of doing and not doing research were explored through questionnaire items and other sources. Moreover, participating teachers' ideas about EFL teachers' engagement in research and their opinions about research conducted by academicians and teachers were also tapped through other sources at the end of the INSET course.

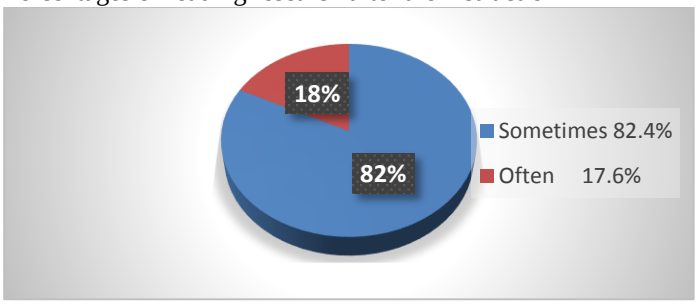
Data about the participants' research practice *before* the instruction indicated their previous research experiences. However, after attending INSET classes, starting from the very beginning

of the term, they were required to practice research individually by the help of some tasks (see appendix G) Therefore, their knowledge about research practice after the instruction involves not only previous experiences but also class discussions and hands-on experience in the INSET course.

4.1.4.1. Engagement with research

After the instruction, with the purpose of investigating whether there appeared any changes in participating EFL teachers' reading frequency, they were asked to state how frequently they read published research through an item in the questionnaire. The following figure summarizes their responses after the instruction.

Figure 4.2
Percentages of reading research after the instruction



Comparing the responses given before and after the instruction in the following table can help better understand the changes in participants' engagement with research.

Table 4.13
Individual participant's reading research frequency and types of reading before and after the instruction

Participants	*Before the Instruction*	*Types of Reading*	*After the Instruction*	*Types of Reading*
1	Sometimes	Journal articles / Forums	Sometimes	Journal articles / Forums
2	Sometimes	Journal articles	Sometimes	Books / Journals
3	Sometimes	Journal articles	Sometimes	Journal articles / Forums
4	Sometimes	Journal articles	Sometimes	Journal articles / Forums
5	Rarely	Journal articles	Sometimes	Journal articles
6	Often	Journal articles	Often	Journal articles
7	Sometimes	Journal articles	Often	Journal articles
8	Sometimes	Journal articles	Sometimes	Journal articles
9	Sometimes	Journal articles	Sometimes	-
10	Rarely	-	Often	-

11	Sometimes	Journal articles	Sometimes	-
12	Sometimes	Forums	Sometimes	Forums
13	Rarely	Journal articles / Forums	Sometimes	Forums
14	Sometimes	Journal articles / Forums	Sometimes	-
15	Rarely	Journal articles	Sometimes	Journal articles
16	Rarely	Forums	Sometimes	Journal articles / Forums
17	Never	Forums	Sometimes	Journal articles

As can be seen in figure 4.2, each participant started reading research by the end of the instruction. Actually, they began reading articles during the instruction as part of the requirement of the course starting from the very first week.

The participants' reasons for reading research were tapped through other sources. Findings are as follows; (a) reading for professional development (N=7), (b) reading to learn practical ideas (N=4), (c) reading to understand theories better (N=3), (d) reading for the research project in the INSET course (N=9), (e) to find solutions in their teaching (N=5), (f) to see what other practitioners experience (N=3), (g) to reflect on their teaching (N=2). Following excerpts explain these reasons:

> I like reading about new developments (Post-instruction, Motivation for Research Interview).
>
> I read published research. I get different ideas and reach as many different ways as possible from each of them. What I read helps me to think practically and to see the problems. Moreover, it helps me to find solutions as well (Post-instruction, Research Knowledge and Practice Essay).
>
> If it is reader friendly, I believe I gain new information and develop (Post-instruction, Research Knowledge and Practice).

Some reasons were also elicited from the reflective journal data gathered during the instruction.

> Reading others' experiences, learning new ways for your teaching and making relations with your own teaching setting all started to inspire me for my research (Reflective Journal, Entry 2, Week 5).
>
> It was really nice to see what literature has on this subject and to have lots of information on my research area. Although it was quite difficult and challenging process to find information in literature, it was quite informative and enjoyable experience for me (Reflective Journal, Entry 2, Week 5).

In addition, data revealed findings about (1) accessing to published research (N=17) and (2) reasons of journal choices (N=10). Before the instruction, they all stated having access to research. However, six (35%) of them mentioned reading forums and counted access to these

forums as access to published research. This result did not show the real extent of having access to published research. After the instruction, all participants stated having access by the help of their MA student IDs for remote access to online libraries to search for articles for their assignment. This situation is also clear in the following excerpts.

> I use Yeditepe online library to reach journals. I also use google academic. I really find them helpful to write literature review (Post-instruction, Research Knowledge and Practice Essay).
>
> I downloaded some articles from TESOL Quarterly through online data bases. They are really reader friendly (Post-instruction, Research Knowledge and Practice Interview).
>
> I have learnt the way to Boğaziçi Library, how to search a book there, where to apply for information and help as I have already got that library's membership (Reflective Journal, Entry 6).

Additionally, the participants mentioned the reasons of reading particular journals such as Teacher Education, TESOL quarterly. Among these reasons are; (a) gaining insight into theories and teaching (N=7), (b) their benefits to increase reflectivity (N=4), (c) getting practical ideas (N=5). These reasons are given in the following excerpts:

> I occasionally read journals such as Teacher Education and ELT Journal to deepen my knowledge and to keep pace with the latest ideas and approaches in my field. I find what I have read so far helpful since they have given me insight and helped me reflect on my teaching in the eye of a teacher-researcher (Post-instruction, Research Knowledge and Practice Essay).
>
> For the project I downloaded some articles from TESOL Quarterly. They are really reader friendly (Post-instruction, Research Knowledge and Practice Interview).

The findings also indicate that participants do not consider academic articles are practical. The following excerpts illustrate the participants' ideas about academic research and their preference for forums (N=6).

> I sometimes read ELT Journal but they are generally far from what I am looking for and they generally do not provide ideas and then I look at the forums. Forums have more practical information. So, I find them useful, I can see what other practitioners experience (Post-instruction, Research Knowledge and Practice Essay).
>
> Some online forums like IATEFL, I like reading those forums because I see my problems are everywhere (Post-instruction, Research Knowledge and Practice Interview).
>
> Moreover, I realized that if I think about the problem in detail and I approach it without fear, there are no problems that I cannot solve. From now on, I will suggest solutions to other practitioners on teaching forums (Reflective Journal, Entry 6).

4.1.4.2. Engagement in research

In addition to participants' engagement with research their active involvement in the research process was also explored. As an important component of INSET course, the teachers were required to conduct a research by following weekly tasks during the semester. As a result, they practiced every single step of research process with hands-on experience during the instruction. To investigate the possible effects of instruction on their research practice, the frequency of their research practice was tapped through an item on a scale of 'often' to 'never' in the questionnaire after the instruction. Comparison of the findings indicate that the number of participants who stated *rarely* doing research decreased to 9 from 11, and the number of participants who stated *sometimes* doing research increased from 4 to 8 after the instruction as indicated in table 4.14.

Table 4.14
Frequency and percentage of participants' statements about doing research after the instruction

	F	%
Never	0	0
Rarely	9	52
Sometimes	8	47
Often	0	0

Participants' reasons of sometimes doing research were also explored. As indicated in table 4.15, three most common reasons were *as a part of a course, to find better ways of teaching* and its *being good for professional development.*

Table. 4.15
Frequency of reasons for doing research after the instruction

Reasons	**F**	**%**
As a part of a course I am studying on.	8	47
Because I enjoy it.	3	17
Because it is good for my professional development.	7	41
Because it will help me get a promotion.	1	5
Because my employer expects me to.	0	0
Because other teachers can learn from the findings of my work.	2	11
To contribute to the improvement of the school generally.	0	0
To find better ways of teaching.	7	4
To solve problems in my teaching.	8	47

These reasons were supported with the statements of participants in the other sources. The same reasons were also mentioned in those sources; (1) doing research as a requirement (N=7), (2) for professional development (N=9) and (3) to solve problems (N=4).

I do research as a requisite of MA courses (Post-instruction, Research Knowledge and Practice Essay).

I am doing research as a project for your lesson (Post-instruction, Research Knowledge and Practice Interview).

Before taking EDEN 505 (INSET) course, I tried to find practical solutions to the problems in my classes on the basis of my experience. I started doing research as a requirement of this course. (Reflective Journal, Entry 6).

Research helps me improve my teaching abilities (Post-instruction, Research Knowledge and Practice Interview).

Research helps to have better understanding on teaching and it also makes more certain to be able to see the problems in my classrooms and analyze and find out solutions for the problems (Post-instruction, Research Knowledge and Practice Essay).

This teacher research study has been personally fulfilling for me. I've also found out a steady increase in the quality of teaching activities and learner outputs (Post-instruction, Motivation for research interview).

In addition to the project which is a requirement of this course, I started another one to solve the problem in my writing class. Students are getting bored very easily and it really affects my motivation (Post-instruction, Research Knowledge and Practice Interview).

This systematic process by including problem statement, reviewing literature, collecting data and drawing conclusion, sheds light on our problems and areas that should be developed and leads us into better teaching (Post-instruction, Research Knowledge and Practice Essay).

I can say that it was a challenging, demanding and quite beneficial process since I was able to overcome one of the major problems of my teaching (Reflective Journal, Entry 6).

In order to investigate the change in the individual participant's research practice before and after the instruction and their reasons, questionnaire data and data gathered from research knowledge and practice essays are presented in table 4.16.

Table 4.16
Summary of individual participant's research practice according to their research practice essays before and after the instruction

Participants	Before the Instruction	Reasons		After the Instruction	Reasons	
		Quantitative	Qualitative		Quantitative	Qualitative
1	**Sometimes**	As a part of course For Prof. Development To solve problems To find better ways of teaching	External factors	**Sometimes**	As a part of course For Prof. Development To solve problems To find better ways of teaching	To be a better teacher and understand students. Not having time
2	**Sometimes**	As a part of a course I enjoy For Prof. development To find better ways of teaching	Had difficulty but enjoyed.	**Rarely**	I do not have time	Not having time Not having encouragement
3	**Rarely**	Not knowing about RMs	Searching individuals' view on foreign language learning.	**Sometimes**	As a part of a course I enjoy For Prof. development To find better ways of teaching	
4	**Rarely**	Not knowing about RMs Not having time Not having anyone to advice	Cannot conduct the whole process without help and have difficulty in analysis	**Sometimes**	As a part of course For Prof. Development To solve problems To find better ways of teaching	
5	**Sometimes**	To find better ways of teaching	Not involved in research	**Sometimes**	As a part of course For Prof. Development To solve problems To find better ways of teaching	As a requirement of this course For further research help of administration, time and positive attitude is necessary
6	**Rarely**	Not knowing about RMs	Tried once as a requirement in SLA class without data collection	**Sometimes**	As a part of course For Prof. Development To solve problems To find better ways of teaching	
7	**Rarely**	Not knowing about RMs Not having time		**Rarely**	Not having time	
8	**Rarely**	Not knowing about RMs Not having time Not being interested in research	It takes time and Effort. Literature review part takes time	**Rarely**	Other: being lazy	As a requirement Not having time Not like reading the literature
9	**Rarely**	Not having time Not being interested in research	Not knowing much about it. Need someone to consult	**Rarely**	Other: Not willing to follow research cycle which is time consuming and difficult	Started doing research with this course
10	**Rarely**	Not knowing about RMs		**Sometimes**	As a part of course For Prof. Development To solve problems To find better ways of teaching	Started doing research with this course

11	**Rarely**	Not having time The learners would not cooperate	On the internet by reading	**Rarely**	Not having time	Cannot do Requires time
12	**Sometimes**	As a part of course For Prof. Development To solve problems To find better ways of teaching	To improve teaching and learn new things. To get deeper understanding.	**Rarely**	Not having time	to improve and to solve problems
13	**Rarely**	Not knowing about RMs My colleagues do not do research	Reading texts to make the lesson more enjoyable.	**Sometimes**	As a part of course For Prof. Development To solve problems To find better ways of teaching	Started doing research with this course
14	**Often**	As a part of course For Prof. Development To solve problems To find better ways of teaching	Don't practice doing research but read a lot.	**Rarely**	Not interested in doing research	Don't do research. Aware of its importance
15	**Never**	Not knowing much about RMs Not having time Not having anyone to advice	Never practiced research	**Rarely**	Not knowing much about RMs Not having time	Started doing research with this course
16	**Rarely**	Not knowing about RMs Not having anyone to advice	When it is required by MA lecturers	**Rarely**	My job is to teach Not having time	Cannot do because of external factors
17	**Rarely**	Not knowing about RMs Not having anyone to advice My colleagues do not do research	Do research on the internet	**Often**	As a part of course. I enjoy For Prof. Development To solve problems	Started doing research with this course.

As indicated in table 4.16, 4 participants who stated that they *rarely* did research before the instruction, pointed out that they were *sometimes* doing research after the instruction. On the other hand, three participants who claimed doing research sometimes or often before the instruction, stated rarely doing research after the instruction. These three people thought of research as a time consuming process that they did not have time. The requirement of INSET course which made them follow each step of research process to conduct a systematic and structured research might have demotivated them. Moreover, 5 participants who stated that they *rarely* did research and 2 participants who stated that they sometimes did research before the instruction, did not change their ideas after the instruction.

In addition to these findings, data from other sources revealed results about (1) benefits of doing research (N=10), (2) difficulties encountered during research (N=15), (3) reasons of doing research in future (N=14), (4) reasons of not doing research in future (N=8).

Benefits of doing research

Despite doing research as a requirement of an MA course, participants stated that they benefitted from the research process that they had been engaged in during the semester. These can be listed as follows; (a) finding solutions to own problems (N=7), (b) gaining better understanding of the context (N=4), (c) developing teaching skills (N=4), (d) enhancing motivation and enthusiasm to teach (N=3), (e) preventing burn-out resulting from problems (N=3). The participants mentioned these benefits as professional development in general. Following excerpts taken from different sources can be representative of these findings.

> Research will contribute to professional development and keep us updated with the fashion in the field. Moreover, it will enhance our motivation and enthusiasm (Post-instruction, Research Knowledge and Practice essay).

> I can say that it was a challenging, demanding and quite beneficial process since I was able to overcome one of the major problems of my teaching. Moreover, I realized that if I think on the problem in detail and I approach it without fear, there are no problems that I cannot solve (Reflective journal, Entry 6).

> Having practiced research in my classroom, I really got excited to see that I can do more than teaching (Post-instruction, Motivation for research interview).

Difficulties encountered during research

Data showed that during the research process the participants had also faced some difficulties while trying to accomplish steps such as; (a) literature review (N=9), (b) data collection (N=7), (c) data analysis (N=7), (d) deciding on which problem to focus (N=5). Reflection (N=2) and interpretation (N=2) were the other two difficulties stated by the participants.

First of all, the main difficulties about doing literature review were stated to be *synthesizing ideas* and *selecting the most appropriate sources.* Following quotations are clear demonstrations of this issue:

> I had some difficulties in choosing the suitable parts to put into my literature review because there were many suggestions, theories and claims and synthesizing important ones just in two pages was a bit painful for me (Reflective Journal, Entry, 2).

> I got lost in the data load. The more I read, the more I got confused. There was a great amount of data related to my research problem. This process was tough and demanding (Reflective Journal, Entry 2).

> At this stage I really had difficult times because I had to read a lot and eliminate a lot , when I got the best options in my hand then again it was a long job to make a logical combination of the texts synthesizing them (reflective task 5).

> I mostly had difficulties in choosing ideas to put in my writing. When I was reading, many things seemed to be important and worth being written. Choosing specific ones and eliminating other important suggestions were sometimes painful (Reflective task 5).

Another difficulty pointed out by the participants was data collection. The difficulties they encountered were mostly related to *data collection process* and the use of *data collection instruments*.

> When I started to collect data especially through interviews, I found this process more complicated than I thought. Persuading students for interviewing, encouraging them to be sincere and taking notes while they were talking were a bit challenging for me (Reflective Journal, Entry 3).

> Interview was difficult to conduct even though I prepared questions beforehand because I was disappointed and demoralized because not 7 but 4 students showed up. I was pretty anxious. Sometimes my students were deviated from the main questions and I needed to direct them to the main road. This made me uncomfortable. I was thinking whether I would be able to get the answers of the questions or not (Reflective Journal, Entry 3).

> I could not decide how to collect my data and whether it would be appropriate for my research problem to help me find my solution to the problem of my action research (Reflective Journal, Entry 3).

Data analysis was also reported as a difficulty participants encountered. After being engaged in the process of data analysis, the participants stated that they had difficulty mostly during the application of the techniques for data analysis such as *transcription of the interviews*, *coding the data*. These challenges can be clearly understood in the following quotations.

> Transcribing was painful. Playing and pausing the player for hours was deterrent (Reflective Journals, Entry 4).

> Organizing the information in the interviews, categorizing them and deducting codes seemed to be problematic for me in the beginning. Especially determining the codes was problematic for me (Reflective Journals, Entry 4).

> I used four different data collection tools and each of them were required to be analyzed, and it took really a lot of time and required a lot of patience for me, as the researcher in this research project (Reflective Journals, Entry 4).

In the 7th written task which required to do an interview with a colleague, transcribe and do the analysis, they identified the same difficulties.

> I exerted great effort in transcribing the data, forwarding and rewinding the audio-recording over and over when I couldn't catch up with the speed of running sentences or couldn't grasp the flowing streams of spoken data and thereby stopped the recording lots of times to transcribe the spoken data that I obtained from him (Reflective Task 7, Week 10).

> Analyzing is also a difficult process, because defining categories and relating them to the codes really requires knowledge and insight about research. To put the words into categories is not as easy as it is in the quantitative research (Reflective Task 7, Week 10)

> Organizing the information in the interviews, categorizing them and deducting codes seemed to be problematic for me in the beginning. Especially determining the codes was problematic for me (Reflective Journal, Entry 4).

Final difficulty faced by the participants during the research process was identifying which problem to focus. The excerpt below illustrates this difficulty:

> Posing problems was a bit complex issue for me since there are lots of issues that I would like to cover (Reflective Journal, Entry 1).

> To decide on your problem and defining it in detail was a hard process for me. It is most probably because of that it is also a process of facing your weaknesses. It is not enough to detect and accept but also you need to go beyond the reasons which may be disturbing and discouraging process from time to time. When I decided that I would do my action research on motivational problems in the

> class, it was really hard for me to accept it firstly. Because you are investigating yourself and for people it has been always hard to criticize him/herself (Reflective Journal, Entry 1).
>
> As you can already guess, my biggest problem is that I do not sincerely enjoy mentioning my weaknesses as all the other teachers. I hate it!!! (Reflective Journal, Entry 1).

All these difficulties reported by the participants may be related to their lack of experience. Since it was the first time they engaged in a structured research process, it can be accepted as normal to experience difficulties. In this study, in order to assist participants to overcome these problems and provide further practice, some instructional tasks were assigned. After completing each task, the difficulties they encountered were discussed in the class and strategies to overcome were suggested. However, it is obvious that participants need more practice.

Reasons of desire and reluctance to do research in future

Finally, data revealed some reasons for the participants' desire and reluctance to do research in their future career. Reasons given by the participants for why they would do research can be listed as follows; (a) to solve problems (N=5), (b) for better teaching (N=5), (c) to understand students and their needs (N=3), (d) increasing self-confidence (N=3). Below are a few extracts demonstrating these reasons in detail:

> This process sheds light on our problems and areas that should be developed and lead us into a better teaching (Post-instruction, Research knowledge and practice essay).
>
> It also contributes to their professional development because you learn while you are in the circle of teacher research (Post instruction, research knowledge and practice interview).
>
> Having practiced research in my classroom, I really got excited to see that I can do more than teaching (Post-instruction, Motivation for research interview).

On the other hand, some participants' (N=7) reasons for reluctance to do research were (a) lack of time in teaching (N=6), (b) overloaded schedules (N=5), (c) disinterest of the school administration (N=3), (d) not being practical (N=3). These can be demonstrated with the following quotations.

> I need time to read, analyze effectively what I read and I need time to collect the data and analyze the data in an Effective way (Post-instruction, Research Knowledge and Practice Essay).
>
> Practicality is more important. I mean, using my effort for preparing extra materials and activities for my students make more sense to me (Post instruction, research knowledge and practice interview).
>
> If I have time, I am sure I do willingly. But I am teaching 25 hours at school and may be twice of this time at home (Post-instruction, Motivation for research interview).
>
> I don't have enough time and encouragement of school principals. Since I would do research under work load and without being paid extra, appreciation and support could be motivating to go on doing research (Post-instruction, Research knowledge and practice essay).

In Turkey, teachers have overloaded schedules and get low salaries in return. The lack of administrative support is also a well-known factor preventing teachers from attending conferences or doing research. Hence, teachers are not perceived to have a researcher identity especially in primary and secondary education. Furthermore, teachers who participated in this study found the processes in research to be cumbersome. Therefore, as Allwright (1999) also pointed out engaging teachers in such a requirement of the INSET course process full of deadlines as a requirement of a formal course created a kind of extra burden for them.

4.1.4.3. Participants' ideas about EFL teachers' research engagement

Before the instruction, 15 participants stated that teachers should be research engaged with the reasons of self-improvement, better teaching and solving problems. By the end of the instruction, 16 participants felt that EFL teachers' research engagement was a necessity. Findings indicated the following reasons for this necessity (a) self-improvement (N=11), (b) to solve problems (N=9), (c) teachers are not mere technicians (N=4), (d) teachers know their own context better than others (N=4), (e) maximizing efficacy (N=3).

Self-improvement

Most of the participants stated the necessity of EFL teachers' research engagement due to the fact that it would help them improve as teachers. In the following quotations, this idea was explained in detail.

Teachers should do research for personal and professional development and better teaching (Post-instruction, Research knowledge and practice essay).

Teachers especially in ELT should do research because it is important to be aware of the innovations and new techniques (Post-instruction, Research knowledge and practice interview).

Engagement in research let me be aware of the idea that it is good to question yourself as a teacher, observe your students and seek for problems with in a continuous development (Reflective Journal, Entry 6).

Solving Problems

The idea that being engaged in research will help teachers to solve their teaching problems is one of the most commonly recurring reasons as can be seen in the excerpts below.

Teachers really should do action research in their classrooms when they would like to solve a problem in their classrooms (Post-instruction, Research Knowledge and Practice Essay).

Writing about teachers' engagement in research let me be aware of the idea that actually it is something good to question yourself as a teacher, observe your students out of the lessons and if you realize important problems, it is a great time to seek for the solutions (Reflective Journal, Entry 6).

They should be the ones who have to solve these problems through research (Post-instruction, Research Knowledge and Practice Interview).

Teachers are not mere technicians

Participants mentioned that teachers should be active practitioners who are decision makers, trying to solve their own problems in their practice as the best knowers of the teaching context. In fact, after the third week of the course, participants started to become aware of the importance of teachers research engagement as can be seen in the following quotations:

Teachers should involve at the each stage of the research like teaching. Because they are the ones who know the student, problems and probable solutions well (Reflective Task 2, Week 3).

Personally, I believe teachers must not be "routine operators" (Reflective Journal, Entry 6).

Teachers should be in a continuous research process because as a teacher, I believe teachers are not just the operators who bend to curricula strictly, yet we are in the process (Post-instruction, Research Knowledge and Practice Essay).

I believe teachers are not just practitioners or knowledge transmitters. They are the people who have problems to be solved (Post-instruction, Research Knowledge and Practice Interview).

Knowing the context better

Teachers' being in the context better than anyone, was indicated by the participants as a reason for teachers' engagement in research. In the first quotation, it is clear that their awareness

raised starting from the third week of the instruction.

> It should be accepted that teachers are "the knowers of the stories", they are aware of the students' strengths and weaknesses or a class' ethnographic structure. Nevertheless, as teachers we should stand and take an action for the problems we encounter in the classroom. As a teacher researcher, we can build on what we know and the most importantly we can bridge the gap between understanding and action by merging the roles of researcher and practitioner (Reflective Task 2, Week 3).

> Teachers should be the ones who are heading research in education since they are in the kitchen (Post-instruction, Research knowledge and practice essay).

> Teachers should do research because they are the insiders and the ones who will find solution to their problems (Post-instruction, Research knowledge and practice essay).

> No one else can better know the problems I am suffering (Post-instruction, Motivation for Research Interview).

Maximizing efficacy in teaching

As a final reason, participants stated that teachers' engagement in research help them maximize their efficacy and prevent burn out that they might experience in their teaching as can be seen in the following excerpts.

> I saw that I can change something. I don't need anyone to consult (Post-instruction, Motivation for Research Interview).

> If teachers do researches, they will be more talented in their field, more enthusiastic and creative maybe they feel less burn-out. But most importantly, they can solve a problem and help others solve a similar one (Post-instruction, Research Knowledge and Practice Essay)

> Teachers should do research to maximize the efficacy and efficiency of their teaching. They are the insiders and they are the ones who will find a solution to their problems as they are the cure. They can investigate, and observe what is going on in their classes with a critical eye (Post-instruction, Research Knowledge and Practice Interview).

In sum, while teachers stated that teachers should be engaged in research to solve problems, to improve their teaching, maximize their efficacy by knowing the context better and not being mere technicians, there was an elaboration in their reasons for research engagement at the end of the instruction.

4.1.4.4. Participants' ideas about research done by teachers and academicians

Data also yielded participants' ideas related to research conducted by academicians and teachers. Even though 9 participants stated that academicians and teachers should conduct

different types of research before the instruction, after the instruction 12 participants thought so. Their main reason is that teachers and academicians have different aims (N=13).

Teachers and academicians have different aims

Participants stated that because of the fact that EFL teachers and academicians have different purposes, the research they conduct should differ. This idea was explained in the following quotations.

> Teachers and applied linguistics should not conduct same research, because teachers seek for more specific solutions while applied linguists try to find general solutions that can be generalized (Post-instruction, Research knowledge and practice Interview).

> Teachers do research about their own classrooms, not academic research. Teachers try to solve their problems in their classrooms, but applied linguists do research for improving the field and informing other experts, teachers in the field. Thus, applied linguists do research that can be generalized, so their research has to be academic (Post-instruction, Research knowledge and practice essay).

Hence, participants also believed that these two professions are different from each other.

> The type of research that teachers conduct should be different from academicians, because if they are stuck with theories and abstract terms, then who will find practical and applicable solutions in the real classroom environment? (Post-instruction, Research knowledge and practice essay).

> I think applied linguists are not that much into our problems. I mean they generally do research because they are interested in that subject (Post-instruction, Research knowledge and practice Interview).

These findings fore fronted teachers' beliefs of the gap between theory and practice. The participants in this study, as indicated in previous sections, had deep anxiety about not finding anything relevant to their problems in the academic research due to different aims and methods and they believed that academicians are far from the reality of teaching contexts. As Freeman (1999) suggested this understanding may also be due to the fact that some researchers do not put the person who does the work at the center. In addition, the major focus of the academic research articles on the strictly controlled research methodology definitely hindered teachers

from reading academic research.

With specific relation to participating teachers' research practice, INSET course has caused some changes mostly because of the participants' engagement in hands-on activities to conduct research during the semester as a requirement. Data gathered before and after the instruction revealed expansion or elaboration of the participants' knowledge and practice that of research. Data both before and after the course also showed that participants did not think that academicians and teachers should do the same type of research. Yet, the mentioned reasons were only their being different professions and having different concerns before the instruction. In the post-data, their having different purposes and the necessity of applying diverse methodology were also added. Finally, participants stated the necessity of doing research to teach better and help students learn better. However, workload which demotivates some participants and prevent them from doing research should not be ignored as a reason of not doing research. That is to say, even though the percentage of the participants who agreed on the teachers' engagement in/with research increased after the instruction, they still felt that following the steps of academic research was too time consuming and burdensome. Therefore, instead of creating such a burden for EFL teachers, they should be encouraged to understand the problems in their contexts and find solutions within a more flexible research cycle.

After the instruction, the number of benefits mentioned by the participants increased by involving its being good for professional development, finding solutions to own problems, gaining better understanding of the context, developing teaching skills, enhancing motivation and enthusiasm to teach, preventing burn-out resulting from problems. On the contrary, participants also complained about many difficulties they had to cope with such as reviewing the literature, collecting and analyzing data, deciding on which problem to focus.

To conclude, the INSET course did not affect participants' research knowledge and practice

in the form of total conceptual change concerning research knowledge as discussed in detail in the above section. The participants did have basic knowledge about research initially. However, as a result of hands on experience in teacher research within the framework of the course their conception of research was elaborated. Moreover, the participants feel that teacher research is a necessity for solving problems and self-improvement before the instruction. However again due to hands on experience and readings as a part of the requirement of the course, their ideas for the necessity of research were elaborated with its various aspects and subcomponents. Similarly, their ideas about the benefits of doing research became more comprised.

4.2.Findings Related to Second Research Question

Second research question investigated whether the INSET course affected participating EFL teachers' motivation for and efficacy in being engaged in teacher-research and if so how. Participants' motivation for and efficacy in research were tapped through Motivation for Research and Efficacy in Research questionnaires which were prepared by the researcher guided by the supervisor (see appendices B and C) and interviews and essays.

4.2.1. Motivation for Research Before the Instruction

The participants' motivation for research before the instruction was first examined through a questionnaire prepared by the researcher guided by the supervisor in which the participants were asked to state their ideas on a four point likert scale (1=strongly disagree, 4=strongly agree) (see Appendix C). The most and least highly rated items in this questionnaire before the instruction can be seen in table 4.17.

Table 4.17
Descriptive statistics of the most and least highly rated items in the motivation for research questionnaire before the instruction

Highly rated items			**Least highly rated items**		
I do research…	**M**	**F**	I do research…	**M**	**F**
12 …to find solutions for the problems in my teaching	3.47	16	25 …not to lose my job	1.35	0
21 …to improve my teaching abilities	3.35	16	15 …because it is part of my contract	1.35	0
13 …because it helps modifying my teaching materials	3.29	16	22 …because administration encourages	1.52	1
1 … to investigate issues in the field.	2.76	12	14 … to get a promotion	1.76	2
9 … to discuss results with my colleagues.	2.88	13	18 … to be paid extra	1.64	2

Participants felt that, doing research to find solutions for the problems (Item 12; M=3.47), to improve teaching skills (Item 21; M=3.35), to modify teaching materials (Item 13; M=3.29), to investigate issues in the field (Item 1; M=2.76) and to discuss results with colleagues (Item 9; M=2.88) were the motivating factors. On the other hand, doing research not to lose their job (Item 25; M=1.35), as part of the requirements in their contract (Item 15; M=1.35), because administration encourages (Item 22; M=1.52), to get a promotion (Item 14; M=1.76) and to be paid extra (Item 18; M=1.96) were felt to be the least motivating factors.

Pre-instruction interviews with the participants and written reflections (essays) helped better understand what motivate them to be research engaged. In addition, interviews and essays also provided demotivating factors to be research engaged.

Motivating Factors

Findings of interviews and essays showed some motivating factors parallel to the findings of the questionnaire. These can be listed as; (a) finding solutions to problems (N=8) and (b) professional development (N=9). Other factors mentioned by the participants are curiosity (N=2) and helping other teachers (N=2), pressure from administration (N=2), promotion (N=1), extra payment (N=1) and holiday (N=1). They are presented in the following excerpts.

> Reaching a solution for a problem in my teaching can be motivating (Pre-instruction, Motivation for Research Interview).

Research enables me to get satisfaction in teaching (Pre-instruction, Motivation for Research Interview).

Research is a way to understand that a method I use works (Pre-instruction, Motivation for Research Interview).

Doing research helps me to understand what the real answer of the problem is. So, it helps me, the students and my colleagues who might experience a similar problem (Pre-instruction, Research Knowledge and Practice Essay).

I know that I should do research especially for the subjects which I am not familiar with (Pre-instruction, Research Knowledge and Practice Interview).

If I am given extra time for holiday or paid extra for research, I would do it willingly (Pre-instruction, Motivation for Research Interview).

Pressure from administration would make me do research. I am not sure how willing I would be. But it would force me to do research (Pre-instruction, Motivation for Research Interview).

Getting promotion could be a reason to do research (Pre-instruction, Motivation for Research Interview).

Demotivating factors

Findings of the interviews and the essays also showed that; (a) disinterest of administration (N=3), (b) lack of time (N=4), (c) loaded schedules (N=4), (d) problems of the school culture (N=1), (e) inflexible curriculum (N=1) were felt to be the demotivating factors to be research engaged. Following excerpts from various participants demonstrate the presence of these factors:

When I told the administration that I was interested in doing research concerning my teaching, they weren't interested and they just told me to use my energy for teaching (Pre-instruction, Motivation for Research Interview).

If I have time, I am sure I do research willingly. But I am teaching 25 hours at school and may be twice of this time at home (Pre-instruction, Motivation for Research Interview).

I really do not want to do any research because I am very loaded with 30 hours of teaching (Pre-instruction, Research Knowledge and Practice Interview).

I don't practice research because it takes time and effort (Pre-instruction, Research Knowledge and Practice Essay).

The reasons of my demotivation are the strict regulations concerning the curriculum and the extra-curricular responsibilities imposed on me (Pre-instruction, Motivation for Research Interview).

Similar to the findings in the questionnaire, interviews and essays also revealed that finding solutions to the problems, professional development, curiosity about the issues in the field of ELT and discussions and sharing of results with colleagues are felt to be motivating factors. On the other hand, factors such as; doing research not to lose the job, encouragement of the administration, as a requirement or to be paid extra were not rated that high.

Besides, the results of interviews and written reflections on the research process provided factors which were felt to be demotivating. To illustrate, loaded schedules, inflexible curriculum, school culture were stated among the demotivating factors hindering participants' research engagement. These factors were similar to the reported reasons of not doing research (see section 4.3.2.2). Similarly, the participants' *reasons of doing research* (see section 4.3.2.2), and the motivating factors were found to be similar. Therefore, the participants felt that there are some motivating and demotivating factors that might affect their research engagement before the instruction.

4.2.2. Motivation for Research after the Instruction

The questionnaire results after the instruction showed that, participants rated items about improving teaching abilities (Item 21; M=3.70), understanding students' expectancies (Item 10; M=3.52), trying new methods (Item 4; M=3.52), finding solutions to problems (Item 12; M=3.41) and modifying teaching materials (Item 13; M=3.41) most highly (see table 4.18). Before the instruction, finding solutions to problems (Item 12; M=3.47), modifying teaching materials (Item 13; M=3.29), investigating issues in the field (Item 1; M=2.76) and discussing results with colleagues (Item 9; M=2.88) were the items which were rated most highly.

On the other hand, factors that were felt to be least motivating at the beginning of the instruction did not change after the instruction. These factors are; doing research not to lose job (Item 25; M=1.29), as a part of the requirements in the contract (Item 15; M=1.29), because administration encourages (Item 22; M=1.76), to get a promotion (Item 17; M=1.64) and to be

paid extra (Item 18; M=1.47).

Table 4.18
Descriptive statistics of the most and least highly rated items in the Motivation for Research Questionnaire after the instruction

Highly rated items			**Least highly rated items**		
I do research…	**M**	**F**	I do research…	**M**	**F**
21 …to improve my teaching abilities	3.70	17	15 … because it is part of my contract	1.29	1
10 …because it helps me better understand my students	3.52	17	25 … not to lose my job	1.29	0
4 …because I like trying new methods	3.52	17	18…to be paid extra	1.47	2
12…to find solutions for the problems in teaching	3.41	17	14…to get a promotion	1.64	2
13…because it helps modifying teaching materials	3.41	17	22…because administration encourages	1.76	4

Table 4.18 shows the most and the least highly rated items at the end of the instruction. Additionally, Wilcoxon Signed Rank test was performed to see the significance of the effect of instruction on the participants' motivation for research statistically. Significance value showed that the instruction did not elicit a statistically significant change in the motivation levels of the participants to be engaged in research (Z=-1.657, p= .097). However, the results demonstrated that 10 participants rated higher on motivation scale after the instruction (see table 4.19).

Table 4.19
Rank Statistics of Motivation for Research Questionnaire

		N	Mean Rank	Sum of Ranks
Post – Pre	Negative Ranks	7[a]	5,93	41,50
	Positive Ranks	10[b]	11,15	111,50
	Ties	0[c]		
	Total	17		

a. Post < Pre
b. Post > Pre
c. Post = Pre

Interviews and essays revealed similar results to the questionnaire findings in relation to motivation after the instruction. Post-instruction interviews and written documents also provided participants' views on what demotivates them.

Motivating factors

Before the instruction, finding solutions to problems (N=8) and professional development (N=9) were stated as the two intrinsically motivating factors. Similarly, at the end of the course participants indicated; (a) professional development and problem solving (N=15) as the motivating factor which is parallel to the findings of the questionnaire. Additionally, the participants indicated (b) having increased self-confidence as a teacher (N=13), (c) excitement and enjoying during the application of new activities and methods for research (N=6) and (d) the students' improvement (N=2), pressure from administration (N=2), promotion (N=1), extra payment (N=1) and holiday (N=1) as the factors that might have motivated them. After having conducted research, they added, the interest of colleagues (N=3) as another motivating factor to be research engaged. Following quotations exemplifies the presence of these factors.

> This process sheds light on our problems and areas that should be developed and lead us into a better teaching (Post-instruction, Research Knowledge and Practice Essay).
>
> I learned a lot. I searched, I wrote, I asked and I learned both conducting a research and the solution to a problem in my classroom. I saw that I improved a lot (Post-instruction, Motivation for Research Interview).
>
> Teacher research also contributes to professional development because we learn while we are in the circle of teacher research (Post-instruction, Research Knowledge and Practice Interview).
>
> I saw that I can change something. I don't need anyone to consult. No one else can better know the problems I am suffering (Post-instruction, Motivation for Research Interview).
>
> I saw that even this was my first action research; I conducted a research by myself as an MA student and completed all the stages by myself. I think this is something to be proud of. This was confidence-building. I think I made progress both professionally and emotionally (Reflective Journal, Entry 6).
>
> My friends wanted me share the results in a meeting. It was a great feeling (Post-instruction, Motivation for Research Interview).

Finally, some participants stated that they got excited and enjoyed in the process of research engagement.

> I got excited because the results also meant something for my colleagues (Post-instruction, Efficacy in Research Interview).

In future, I know that nothing will motivate me to do research but my excitement to solve a problem by the help of new activities and methods will (Post-instruction, Motivation for Research Interview).

I like doing research and I will try to do it. It gives me pleasure. When I proceed to the results and discuss them after interpreting all the things that once seemed jumble, I feel powerful and happy (Post-instruction, Research Knowledge and Practice Essay).

I noticed that as a result of the activities I applied for my research, my students become more eager and they motivated (Post-instruction, Motivation for Research Interview).

Demotivating factors

While the participants mentioned disinterest of the administration, lack of time, loaded schedules as the demotivating factors before the instruction, they added the challenge they experienced during the research process as another demotivating factor after the instruction. Therefore, commonly stated demotivating factors at the end of the course are; (a) disinterest of the administration (N=3), (b) challenging process of research (N=2) and (c) lack of time (N=2). Following quotations show their feelings about these factors.

I could have been more motivated with the support of my administration (Post-instruction, Motivation for Research Interview).

I don't think research is important for my institution. This sometimes demotivates me (Post-instruction, Motivation for Research Interview).

Being research engaged requires support from colleagues, students and principals. In this institution, I cannot say that they help me or support me (Post-instruction, Research Knowledge and Practice Essay).

It was tiring and sometimes even dreadful. It was demanding for extra time and energy (Reflective Journal, Entry 6).

I need time to read, analyze effectively what I read and I need time to collect the data and analyze the data in an effective way (Post-instruction, Research Knowledge and Practice Essay).

The load we have, the time required to read, collect data and report seem all demotivating (Post-instruction, Motivation for Research Interview).

To sum up, the highly rated items in the questionnaire and interviews and essays at the end of the instruction, show that factors such as professional development, improving teaching abilities, finding solutions to problems and trying new methods are the factors that were felt to

motivate participants mostly. Additionally, having increased self-confidence was also mentioned as another motivating factor in the interviews and essays. Additionally, the participants felt that interest of colleagues to be motivating.

On the other hand, the participants felt that not having time, loaded schedules and disinterest of administration were demotivating them to be research engaged after the instruction. Additionally, with hands-on experience in research, they also realized that it is not an easy process and they added challenge among the demotivating factors after the instruction. This result supports their ideas related to engagement in research process (see section 4.1.4.2.).

4.2.3. Efficacy in Research before the Instruction

The participants' efficacy in research was investigated through a questionnaire prepared by the researcher guided by the supervisor (1=not at all true, 4=very much true) (see appendix B) and pre-instruction interviews and essays. Table 4.20 shows the most and the least highly rated items in the questionnaire before the instruction.

Table 4.20
Descriptive statistics of the most and least highly rated items in the Efficacy for Research Questionnaire before the instruction

Highly rated items I feel I can…	**M**	**F**	**Least highly rated items** I feel I can …	**M**	**F**
8 …collect information by observing a class	3.17	14	18 … use statistics to analyze my data	1.58	4
13…do an interview to collect data	3.23	15	10 … chose the most appropriate method	2.05	3
14…collect information by taking notes during observation	3.23	14	32 …combine and analyze data collected through different instruments	2.11	4
20…interpret results of my research	2.58	10			
28…do research on topics in ELT	3.11	12			

These results show that participants felt more efficacious in data collection by observing (Item 8; M=3.17), doing an interview (Item 13; M=3.23) and taking notes (Item 14; M=3.23). Additionally, they rated items about doing research in the field of ELT (Item 28; M=3.11) and

interpreting results (Item 20; M=2.58) highly. However, they felt less efficacious in statistical data analysis (Item 18; M=1.82), choosing the most appropriate method (Item 10; M=2.05), combining and analyzing data collected through various instruments (Item 32; M=2.11).

Findings of the pre-instruction interviews and essays provided support for the above findings as well as providing reasons for the participants' feelings of efficacy. Moreover, findings indicated why the participants did not feel efficacious in certain aspects.

Feelings of Efficacy in Data Analysis

Similar to the questionnaire results, findings of the pre-instruction interviews and essays showed that 10 out of 17 participants indicated not feeling sufficiently capable in doing data analysis. For the reasons of being incapable of doing data analysis; (a) not having enough knowledge (N=8) and (b) thinking of statistics as the only way to do analysis (N=8) were stated. These reasons are given in the quotations below.

> I am sure it is a hard job to analyze all these questionnaires. It requires great analytical knowledge. And I don't know it (Pre-instruction, Efficacy in Research Interview).

> Statistical analysis really scares me (Pre-instruction, Motivation for Research Interview).

> When it comes to analysis, I do not know how to do it (Pre-instruction, Research Knowledge and Practice Essay).

> I know there is statistical analysis but I do not know how to do (Pre-instruction, Research Knowledge and Practice Interview).

Feelings of Efficacy in Data Collection

Parallel to the questionnaire findings, in the interviews and essays before the instruction, more than half of the participants (N=9) stated that they felt efficacious to collect data. However, 8 of them indicated not feeling sufficiently capable because of (a) not having enough knowledge (N=5) and (b) their beliefs about the difficulty of the process (N=4). These findings were depicted in the following excerpts:

I really do not know scientific ways of data collection (Pre-instruction, Efficacy in Research Interview).

I am not sure about the data collection methods. I don't know the stages of data collection (Pre-instruction, Research Knowledge and Practice Essay).

I did an interview when I was an undergraduate student. It was very complicated and difficult (Pre-instruction, Research Knowledge and Practice Interview).

Feelings of Efficacy in Data Interpretation

Questionnaire results showed that 7 participants did not feel efficacious to interpret the findings of their research. Parallel to this finding, in the interviews and essays, same number of participants (N=7) stated not being capable in data interpretation because of (a) not having necessary knowledge (N=3) and (b) thinking of numerical data only (N=4).

I don't know how to analyze and interpret the statistical results (Pre-instruction, Research Knowledge and Practice Essay).

By checking numbers I can say that the bigger value shows more impact of something. Interpretations like this can be done. But I am not sure whether this way is applicable in all results (Pre-instruction, Efficacy in Research Interview).

It is all about your statistical knowledge. If you are good at it, interpreting can be easy (Pre-instruction, Research Knowledge and Practice Interview).

Feelings of Efficacy in Conducting Research

Parallel to the questionnaire results, interviews and essays written before the instruction showed that 13 participants felt efficacious in conducting research; however, 4 participants out of 17 did not feel capable to conduct research because of the fact that they believe it is academic (N=4) and they do not know how to do it (N=4).

Research sounds very academic that's why I don't feel capable (Pre-instruction, Efficacy in Research Interview).

I need help. I can't do it on my own because I don't know how to do it (Pre-instruction, Research Knowledge and Practice Essay).

I should have necessary knowledge to conduct research. Now, I don't have it and I don't feel confident (Pre-instruction, Research Knowledge and Practice Interview).

To sum up, questionnaire results, interview and essay findings showed that more than half of the participants felt capable in data collection, data interpretation and conducting

research. The common reasons of the participants who stated not feeling capable in these aspects are not having adequate knowledge, thinking of research as academic. On the other hand, both questionnaire and other data sources showed that most of the participants did not feel efficacious in doing data analysis because of not having adequate knowledge and thinking of statistical analysis only.

4.2.4. Efficacy in Research after the Instruction

Table 4.21 presents the most and least highly rated items in the Efficacy in Research questionnaire after the instruction. Before the instruction, participants rated items about data collection (items 3, 13, 14), data interpretation (Item 20) and doing research (Item 28) the most highly. At the end of the instruction, items about data collection through observation (Item 14; M=4.00), writing research questions (Item 4; M=3.88), defining teacher research (Item 1; M=3.82), interpreting data (Item 20; M=3.76) and conducting research (Item 24; M=3.64) were rated most highly.

On the other hand, before the instruction, statistical analysis (Item 18; M=1.82), choosing the appropriate method (Item 10; M=2.05) and analyzing data collected with different instruments (Item 32; M=2.11) were the least highly rated items. After the instruction, the items about preparing a questionnaire (Item 11; M=2.41), doing statistical analysis (Item 18; M=2.47) and saving some time to spend on doing research (Item 25; M=3.05) were rated least highly.

Table 4.21
Descriptive statistics of the most and least highly rated items in the Efficacy in Research Questionnaire after the instruction

Highly rated items			**Least highly rated items**		
I feel I can…	**M**	**F**	I feel I can …	**M**	**F**
14 … collect information by taking notes during observation	4.00	17	11 … prepare a questionnaire	2.41	3
4 …write research questions	3.88	17	18 … use statistics to analyze my data	2.47	6
1 …define what teacher research is	3.82	17	25 …save some time in my daily life to spend on doing research	3.05	14
20…interpret findings of research	3.76	17			
24…conduct research about topics in the field of ELT	3.64	17			
31…analyze data collected through observation	3.47	17	15…analyze data collected through a questionnaire	3.05	14
9…analyze data in the transcriptions	3.35	17			
16…analyze data through categorizing and coding	3.29	16			

Wilcoxon Signed Rank test was performed to see the significance of the effect of instruction statistically on the participants' feelings of efficacy in research. Significance value showed that the instruction elicited a statistically significant change in the efficacy levels of the participants in research (Z=-3.408, p= .001). Additionally, the ranks statistics demonstrated that 15 participants rated higher and 2 rated the same on efficacy scale after the instruction (see table 4.22).

Table 4.22
Rank Statistics of Efficacy in Research Questionnaire

		N	Mean Rank	Sum of Ranks
Post – Pre	Negative Ranks	0[a]	,00	,00
	Positive Ranks	15[b]	8,00	120,00
	Ties	2[c]		
	Total	17		

a. Post < Pre
b. Post > Pre
c. Post = Pre

Findings were complemented with data from interviews and essays. They helped understand why the participants felt efficacious and inefficacious in the following aspects; (1) conducting research, (2) data analysis, (3) interpreting results, and (4) data collection.

Feelings of Efficacy in Conducting Research

Before the instruction, in the questionnaire 5 participants stated not feeling sufficiently capable in conducting research related to topic in the field of ELT. Similarly, interviews and essays written before the instruction showed that 4 participants out of 17 did not feel capable to conduct research. However, after the instruction, in the questionnaire, all participants (N=17) stated feeling capable in conducting research about topics in the field of ELT. Parallel to the questionnaire findings, 15 participants indicated that they felt efficacious to conduct research mostly because of the hands-on experience during the course in the post-instruction interviews and essays.

> Before this course, I did not know how to conduct research. But after learning the procedure and the cycle of teacher research, I feel more confident in both designing and conducting research. (Post-instruction, Efficacy in Research Interview).

> I learned both conducting a research and how to find solutions to problems in my classroom (Post-instruction, Motivation for Research Interview).

> INSET course inspired me and gave confidence and I learnt how to examine my problem systematically. It also helped me to understand the importance of doing a research and to bring some solutions to real issues. I had a clear idea about how to design a project more efficiently (Reflective Journal, Entry 6).

> Conducting a teacher research project helped me improve my teaching, learning abilities and I can feel more professional on this aspect now (Post-instruction, Research Knowledge and Practice Essay).

Feelings of Efficacy in Data Analysis

Before the instruction, in the questionnaire, 13 participants indicated not feeling capable to do statistical analysis and 10 out of 17 participants indicated not feeling sufficiently capable in doing data analysis in the interviews and essays. Similar to the pre-instruction results, 11 participants indicated being incapable in statistical data analysis in the questionnaire after the instruction. Additionally, post-instruction interviews and essays showed that 10 participants were not efficacious in doing statistical analysis. However, all participants stated being capable

in doing analysis of transcriptions and observation notes and doing coding in the questionnaire. This finding was also supported with post-instruction essays and interviews. 13 participants out of 17 felt efficacious to do qualitative data analysis (e.g. coding).

> I am capable enough to do coding but for the statistical analysis I need practice (Post-instruction, Efficacy in Research Interview).

> I can't say that I'm expert in data analysis but I can say that I know how to analyze written data through coding for my purposes (Post-instruction, Research Knowledge and Practice Essay).

> I can say I know coding and finding out categories because in the INSET course, we had lots of hands on practice. But for statistical analysis, lots of practice and instruction is needed (Post-instruction, Research Knowledge and Practice Interview).

> As we practiced during the class time, I felt comfortable about how to find my concept, codes and categories in the interview transcription (Reflective Task 7).

> Since there was a pretty good amount of data I was lost inside of data. However, trainings/exercises during INSET class helped me how to sort out necessary data (Reflective Journal, Entry 4).

Feelings of Efficacy in Data Interpretation

At the beginning of the instruction, questionnaire results and interviews and essays showed that 7 participants did not feel efficacious to interpret the findings of their research. However, after the INSET course, 17 participants indicated being efficacious in the questionnaire and 13 participants stated that they feel efficacious in the post-instruction interviews and essays. Following excerpts show this finding.

> Interpreting the data was generally fun for me because I felt that I am really finishing a job that is a product of own classroom. Interpreting the results was like giving the last shape to your research and it was what made the research real (Reflective Journal, Entry 5).

> Actually, data interpretation is not very different from analysis. Because while we are analyzing, the results mean something. (Post, instruction, Efficacy in Research Interview).

> I can say that I can make interpretations of analyzed data (Post-instruction, Research Knowledge and Practice Essay).

Feelings of Efficacy in Data Collection

Before the instruction, in the questionnaire, 15 participants stated feeling capable to collect data through interview, 14 stated being efficacious in note-taking, 8 indicated being capable in collecting data through audio/video recording and 14 felt capable in doing observation to collect data. Additionally, pre-instruction interviews and written documents showed that 9 participants felt that they can collect data; however, after the INSET course, questionnaire findings showed that all participants (N=17) felt capable to collect data through any of the above mentioned ways. Similarly, interviews and essays showed that 15 participants indicated feeling efficacious after the INSET course as can be seen in the following excerpts.

> I can say I am capable to collect data because we have worked on it both in the class and during our research process (Post-instruction, Efficacy in research interview).

> Since my class size was small, data collection was not so hard at least in quantity. I managed somehow to collect data (Reflective Journal, Entry 6).

All in all, the statistical analysis revealed no significant change in participants' motivation level. This result is not surprising since it was not possible to affect the work related conditions through instruction.

Moreover, questionnaires, interviews and essays demonstrated similar findings in terms of motivation for and efficacy in research. Specifically speaking, finding solutions to problems, professional development, helping colleagues, modifying teaching materials, extra payment, promotion, encouragement of the administration were the commonly reported motivating factors before the instruction. However, after being engaged in the research process, they added the self-confidence they gained, the excitement they experienced, the interest of colleagues and students' improvement as other motivating factors to be research engaged.

Furthermore, in the essays and interviews, the participants stated that disinterest of the administration and having loaded schedules demotivate them before the instruction. At the end

of the instruction, after having experienced conducting teacher-research, they added the challenge they faced during the process as another demotivating factor.

With specific relation to participants' efficacy in research, questionnaire results and findings of interviews and essays demonstrated that, majority of the participants' felt efficacious in data collection, data interpretation and conducting research before the instruction. The common reasons of the participants who stated not feeling capable in these aspects are not having adequate knowledge, thinking of research as academic. On the other hand, both questionnaire and other data sources showed that most of the participants did not feel efficacious in doing data analysis because of not having adequate knowledge and thinking of statistical analysis as the only technique. After the instruction, results showed that nearly all participants felt efficacious in data collection, interpretation of findings, doing research and doing qualitative data analysis. However, they still did not feel sufficiently capable in doing statistical analysis.

4.3. Findings Related to Third Research Question

Third research question investigated whether the INSET course affected participants' reflectivity. Data for this research question came from the weekly assigned essays (N=10) and journal entries (N=6).

Figure 4.3 demonstrates the frequency distribution of all participants' reflectivity at the outset, in the middle and at the end of the instruction collectively. Results demonstrated that the percentage of statements written in the descriptive form (DW) gradually increased from the first week on. In other words, participants tended to describe events in the form of declarative sentences lacking personal indicators such as "I believe", "I feel", "because" without providing any justification or reasons. Specifically, the percentage of DW in the first week was 19, in the sixth week 29 and in the last week 53. This tendency is presented in the following statements.

I have been in this profession both as a student and a teacher for fifteen years (Weekly Task 1).

Information about students' opinions and beliefs can be gathered through written and oral questions (weekly Task 6).

As a conclusion of these meetings, they grouped the questions under four titles (Weekly Task 10).

Results also showed that participants' dialogic reflectivity significantly increased starting from the sixth week of the instruction on (Z= -2,050, P= .04). In other words, during this period participants started to step-back from the events and tried to find explanation for why an event happens from the middle of the instruction on. Specifically speaking, while 16% of the statements in the essays written in the sixth week included dialogic reflection, in the last week of the instruction this percentage increased to 26.5%. Following excerpts demonstrate the presence of the dialogic reflection in the essays of the participants from sixth week on.

> I cannot anticipate the disadvantages of some types of data collection because of not having enough experience. (Weekly Task 6)

> At first asking questions seemed easy, but when I started to prepare them I noticed the difficulty as they would work as the frame of the windows (Weekly Task 7)

However, according to the findings, the participants did not seem to improve in the development of critical reflection. Even though, 11% of the statements were critical in the first week, this percentage increased to 29 in the second week and decreased to 14% in the third week. From this week on, a gradual decrease in critical reflection was observed. In the final week, only 2% of the statements included critical reflection. Following statements demonstrate critical reflection at the outset of the instruction.

> An institution should back up its lecturers' professional development because at the end the institution itself will benefit from this development. (Weekly Task 1)

> As years pass, I feel more self-confident but less motivated about the general education system which is based on strict and ineffective curriculum. (Weekly Task 1)

> At present, one of the biggest limitations in an ELT classroom in Turkey is that the classes are very crowded which impedes teachers to apply the recent teaching theories. (Weekly Task 1)

In the field of education, academicians try to publish to become professors without caring about the education in the country (Weekly Task 2).

Ministry of Education adopts new English course books but they do not pay attention to the opinions of students and teachers who have to use these materials (Weekly Task 2).

Additionally, figure 4.4 shows the average percentages of reflectivity criteria independent of time. In the line graph, it is clear that the participants mostly performed descriptive writing (DW) and dialogic reflection (D/R) which show the lack of critical thought.

Figure 4.3
Reflectivity Percentages of All Participants

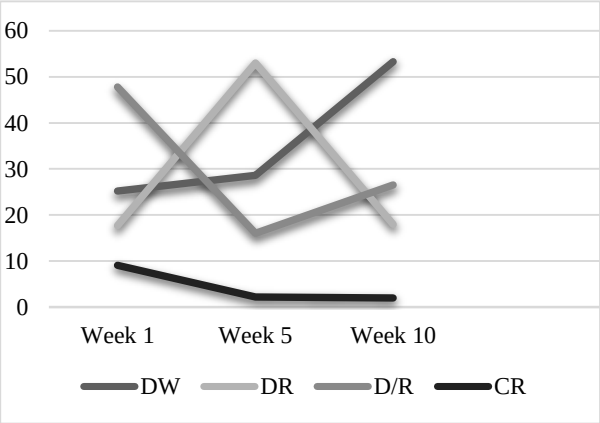
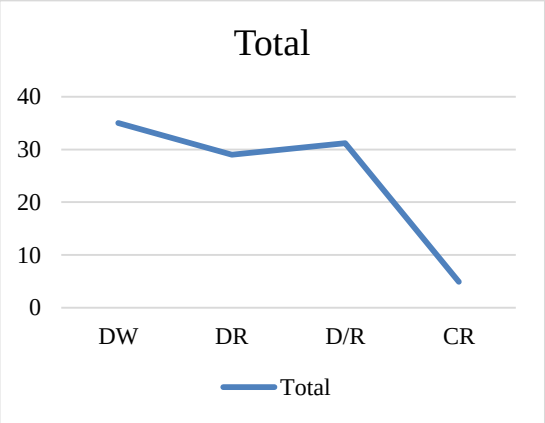


Figure 4.4
Average Percentages of Reflectivity Criteria



There may be several reasons of this result. First of all, because it is a major and higher-order thinking skill (Beyer, 1995), critical thinking needs to be embedded into education systems starting from the early stages of individuals' education (Paul et al., 1989). Accordingly, as pointed out by Halpern (1998), the priority given to the instruction of content knowledge solely has to be replaced with teaching that integrates critical thinking. In other words, for the development of critical reflection explicit instruction and continuous practice throughout individuals' education is required (Gelder, 2010). Within the framework of this one-semester course study, critical reflection could not be possibly expected to develop if participants' prior education did not focus on the development of this ability.

Moreover, Roberts (1998; pg. 58) claimed that learner teachers in in-service education programs interpret reflective developmental tasks as imposed course requirements without assigning any real meaning to them. He also pointed out that using reflective tasks requiring the students to write reflective assignments as part of performance assessment hinders teachers' engagement in reflective thought. In the case of the present study, may be the participating teachers were too much loaded with the requirements.

Furthermore, Schön (as cited in Roberts, 1998; pg. 53) stated that traditional school culture engaging teachers in day-to-day work with loaded schedules and extra responsibilities impede teachers' reflective thinking. Therefore, the participating teachers might not have been supported in reflective thinking.

Finally, the participating EFL teachers were required to reflect critically on the social and historical issues regarding their teaching contexts in a different setting. Therefore, the concern for social desirability and not being in the context to be reflected on might have hindered their critical reflection.

4.4. Findings Related to Fourth Research Question

Finally, fourth research question aims at investigating participants' opinions about the relative contribution of INSET and other MA courses they attended to their understanding of teacher research and implementation. Data came from essays and interviews.

Data analysis showed that (1) Applied Linguistics (N=3), (2) Testing Principles in EFL (N=5), (3) Research Methods (N=13), (4) INSET (N=17) are the courses which were indicated to contribute to participants' research knowledge. Findings also indicated how these courses contributed to the participants' research knowledge.

Applied Linguistics

Three participants who took Applied Linguistics course as the prerequisite to MA courses stated that they prepared a literature review as an assignment. This assignment process was

believed to involve them into an intensive process of searching for and reading published articles related to their research areas. In the end of this process, they were expected to write a *synthesis paper*. In other words, this course helped them become *engaged with research*. Participants explained the contribution of this process to their research knowledge with the following excerpts.

> Applied linguistics course is the first course that I had to read research articles. In other words, I learned what kind of components an article has and the way it is written (Essay on the Relative Contribution of the Courses).

> In Applied Linguistics course, I had to read at least 5 articles and write a synthesis paper. It was the most difficult assignment I have ever done. To be honest, I thought that it is very difficult to do research and I was afraid (Essay on the Relative Contribution of the Courses).

> In applied linguistics course I learned how to do literature review because our professor wanted only a synthesis paper about a subject in ELT. That's why, I searched on the internet a lot and went to libraries (Relative Contribution of the Courses Interview).

Testing Principles in EFL

5 students, who stated having taken Testing Principles in EFL course, agreed that the syllabus of this course served as complementary to their research knowledge in terms of learning how to; (a) prepare a test (N=4) and (b) score a test (N=2) reliably. One of the participants wrote the following statement;

> To solve the problems in our classes, we sometimes try different teaching techniques and we can measure its effectiveness by checking students' achievement on a test. If we cannot prepare the test efficiently, we cannot discuss the efficiency of the new technique or activity we try (Essay on the Relative Contribution of the Courses).

Participants also stated that while conducting their teacher research as the requirement of the INSET course, they used tests as data collection tool. They indicated that they could check the quality of the tests and be careful about scoring by the help of the knowledge they gained from testing course.

> Testing knowledge is very important because while conducting research we often need test results as data. Thus it helped me to conduct a better research (Essay on the Relative Contribution of the Courses).

> In research projects we did for INSET, we used tests as data collection instrument. Because we wanted to see whether the activity worked or not. So, if we cannot develop good tests, our results could be misleading (Relative Contribution of the Courses Interview).

Research Methods in EFL

11 students who attended Research Methods course in the same semester with the INSET course agreed that Research Methods course worked as complementary to INSET course by mostly being based on *academic research* and *statistical analysis*. The following excerpts are the examples of the presence of these ideas.

> In the INSET course, because of the nature of teacher research, we generally focused on narrative type of research. In this sense, Research Methods was different by focusing on mainly statistical analysis used in most of the academic research (Essay on the Relative Contribution of the Courses).

> This course contributed me to gain knowledge on academic research. I can now understand a research article better (Essay on the Relative Contribution of the Courses).

> We have learned how to run and interpret statistical analysis in Research Methods (Essay on the Relative Contribution of the Courses).

> In Research Methods, we generally talked on sample data sheets and analysis. These activities helped us understand the published articles (Relative Contribution of the Courses Interview).

Current Issues in INSET and Professional Development (INSET)

The participants also discussed the contribution of INSET course to their research knowledge regarding solving problems in their teaching contexts through teacher-research owing to some commonly stated reasons; (a) hands-on experience (N=17), (b) individual feedback (N=9) and (c) class discussions (N=7).

a. Hands-on Experience

All participants stated that the course provided them with the necessary theoretical background and opportunities to use their knowledge and reframe their own teaching during the process of the research project. In other words, the participants implemented what they

learned in weekly tasks. Following quotations illustrate their ideas about the significance of hands-on experience they gained in general.

> While doing the assignments, I noticed that I am learning by doing what was taught in the class (Essay on the Relative Contribution of the Courses).

> The research project served to bridge the gap between theory and practice. If it (research) was not a requirement, all theory would be forgotten in a few weeks' time but now I really learned (Essay on the Relative Contribution of the Courses).

> After each task I well-comprehended its purpose. The tasks in the course were not just for the sake of giving assignments, but primarily had a fulfilling purpose. Besides, the tasks were fruitful in terms of grasping the nature of teacher research (Essay on the Relative Contribution of the Courses).

> At first, we were complaining but later we understood the purpose. We looked forward to some more practice sometimes because the assignments were all practice oriented. That's why they really helped me to learn conducting a research (Relative Contribution of the Courses Interview).

In addition to the participants' ideas about hands-on experience in general terms, they also specified the experience they gained. In other words, they stated the benefit of hands on experience to solve problems in teaching contexts, to review the literature, to design an action, to collect and analyze data and to report the study. Following excerpts demonstrate the presence of these ideas.

> Before the INSET course, I thought that the problems in my context could not be solved. That's why, I tended to accept them and modify my teaching. However, this course showed me how to cope with problems (Essay on the Relative Contribution of the Courses).

> I always believed that doing a literature review is very academic and only academicians could do it. Once I learned that it is a valuable source to get some ideas about problems in my teaching, I liked reading and applying what I have read (Essay on the Relative Contribution of the Courses).

> INSET course taught me how to solve a problem in a systematic manner. I learned how to design a research cycle to reach a solution (Essay on the Relative Contribution of the Courses).

> After the INSET course, I feel confident to decide what data to collect and how to do data analysis thanks to the practices required (Essay on the Relative Contribution of the Courses).

> Writing an article was always a very scientific and academic work. When we were required to write a research report, many of us got shocked. However, the continuous practice during and after the class hours helped us a lot. In the end, seeing that we, as the teachers, could report a research was really encouraging and motivating (Essay on the Relative Contribution of the Courses).

b. Feedback Received from the Instructor of the INSET Course

The instructor provided feedback to each of the participants. With the help of these one-to-one conferences, they felt sufficiently supported during the process of research. Since the instructor gave individual feedback after weekly assignments and the application of every step of teacher-research, they stated they did not feel alone in the process and they received enough facilitation through one-to-one conferences. The following excerpts exemplify these feelings.

> The instructor gave individual feedback after every assignment which showed that we were not alone and we could always consult her (Essay on the Relative Contribution of the Courses).
>
> As a teacher, I like the support and rapidness of the instructor. Whenever we needed help, she was with us and ready to help (Essay on the Relative Contribution of the Courses).
>
> The mentoring and feedback we had during the semester were fascinating. I was quite surprised many times when I had timely and individual feedbacks (Essay on the Relative Contribution of the Courses).
>
> The feedback she (the instructor) gave us helped a lot. I mean for example before doing an interview for our research, she assigned an interview. We learned before applying it in our research thanks to the feedback she gave (Relative Contribution of the Courses Interview).

c. Class Discussions

Finally, participants indicated the effectiveness of the class discussions about their teaching experiences and applications to find solutions to the problems in their teaching contexts. Moreover, discussions about participants' progress in research projects were also believed to contribute to their teacher-research knowledge.

> The INSET course was really like an in-service teacher training, not like a boring lesson , it's because I shared my experiences, or classroom problems with my classmates and received their feedback (Essay on the Relative Contribution of the Courses).
>
> Classroom atmosphere, which was designed to promote collaboration among students by exchanging ideas and experiences, was of great help to understand and personalize the topics discussed (Essay on the Relative Contribution of the Courses).
>
> The lessons were quiet useful. They included exchanging ideas and giving solid examples about the steps of research conducted by every student. We learned how to overcome similar problems in our research (Essay on the Relative Contribution of the Courses Essay).

> The topics that we discussed in the class were all related to the problems in our teaching. We could easily comment and share ideas. It also helped me personalize the readings (Relative Contribution of the Courses Interview).

To sum up, participants indicated that every course they attended in the MA in TEFL program somehow contributed to their knowledge of research. Applied linguistics course which is offered as a prerequisite to MA courses helped learn how to do literature review. Moreover, Testing Principles in EFL course helped them develop better tests with good quality items which is significant to collect reliable data in their teacher research projects. Furthermore, they commonly agreed on the fact that Research Methods course contributed to their research knowledge a lot in terms of statistical analysis and interpretation which is good for them to understand academic articles. Finally, participants claimed that as a result of hands-on experience, individual feedback received from the instructor and the discussions in weekly meetings, they learned how to conduct teacher-research to solve problems in their teaching contexts. Therefore, each course within the MA in TEFL program contributed to the research knowledge of the participants. However, INSET course was believed to be the only one to contribute to their research practice.

4.5. Summary

In relation to first research question, namely; possible effects of the INSET course on participating EFL teachers' research knowledge and practice, findings indicated expansion or elaboration in the participants' research knowledge and practice.

With specific relation to participants' research knowledge, it can be concluded that their knowledge of research expanded and they elaborated on the sub-constructs such as data collection methods, steps of research, characteristics of research and data analysis starting from the second week of the instruction. In other words, the research knowledge of participants before and after the instruction did not demonstrate a total conceptual change; however, the

existing knowledge elaborated and expanded. Specifically, despite stating questionnaires, survey, observation and interview as the only data collection instruments at the outset, after the instruction they expanded their knowledge about data collection tools by adding other sources like written reflective journals and post facto notes to their knowledge base. Furthermore, although the participants defined the characteristics of research as a systematic problem solving process as part of data collection before the instruction, the close relationship of this process with professional development to gain insight into their teaching was focused at the end of the instruction. Hence, their understanding of research started to mean as a way of professional development. Additionally, even though *data interpretation* and *sharing results* were not counted among the steps of research before the instruction, these steps were added into their definition of research after the instruction.

In relation to the possible effects of the INSET course on participating EFL teachers' research practice, findings revealed expansion or elaboration of the participants' feelings of research practice mostly because of the participants' engagement in hands-on activities to be engaged in research process during the semester as a requirement. Analysis both before and after the instruction demonstrated that participants thought of academicians and teachers as two diverse professions and they should not conduct the same type of research. However, the reasons stated before the instruction were only their being different professions and having different concerns. At the end of the instruction, having different purposes and the necessity of applying diverse methodology were also added to the participants' opinions about research practice. Finally, participants indicated the inevitability of engaging in/with research with the purpose of teaching better and helping students learn better. Yet, loaded schedules demotivating some participants and hindering their research engagement should also be considered as a reason of not doing research. In other words, although the percentage of the participants who

agreed on the teachers' engagement in/with research increased after the instruction, they still considered that the need to follow the steps of research was waste of time and troublesome.

Moreover, after the instruction, the benefits of research engagement indicated by the participants expanded by involving its being advantageous for professional development, finding solutions to teaching problems, understanding the teaching context in a better way, developing teaching skills, improving motivation and eagerness to teach, preventing burn-out. However, they also stated many difficulties such as reviewing the literature, collecting and analyzing data, deciding on the problem to focus.

Therefore, the instruction did not cause any changes in participants' research knowledge and practice in the form of total conceptual change concerning research knowledge as discussed in detail in the above section previously. The initial basic research knowledge of the participants was elaborated as a result of hands on experience in teacher research within the framework of the course. Additionally, again due to hands on experience and readings as a part of the requirement of the course, their ideas for the necessity of research were elaborated by involving different aspects and subcomponents. Similarly, their ideas about the benefits of doing research became more embraced.

Secondly, in an attempt to investigate the participants' motivation for and efficacy in research, the findings both before and after the instruction indicated that the instruction in the INSET course resulted in the statistically significant change in participants' efficacy in research whereas it did not cause any significant change in their motivation level. However, the results demonstrated that 10 participants rated higher on motivation scale after the instruction (see table 4.19).

Specifically speaking, finding solutions to problems, professional development, helping colleagues, modifying teaching materials, extra payment, promotion, encouragement of the

administration were the extrinsic factors that were stated to affect their motivation for research before the instruction. However, after being engaged in the research process, they added the self-confidence they gained, the excitement they experienced, the interest of colleagues and students' improvement as other motivating factors to be research engaged.

Additionally, in the essays and interviews, the participants stated that disinterest of the administration and having loaded schedules demotivate them initially. After having experienced teacher-research, they added the challenge they encountered during the process as another demotivating factor.

Furthermore, majority of the participants' felt efficacious in data collection, data interpretation and conducting research before the instruction. The commonly stated reasons of the participants who stated not feeling capable in these aspects were not having adequate knowledge, thinking of research as academic. On the other hand, both questionnaire and other data sources showed that most of the participants did not feel efficacious in doing data analysis because of not having adequate knowledge and thinking of statistical analysis as the only technique. At the end of the instruction, results showed that nearly all participants felt efficacious in data collection, interpretation of findings, doing research and doing qualitative data analysis. However, they still did not feel sufficiently capable in doing statistical analysis.

Therefore, the instruction, hands-on assignments and the research engagement in the INSET courses significantly affected participants' intrinsic motivation and efficacy in research.

In relation to the third research question; namely, possible effects of instruction on participating EFL teachers' reflectivity, the results of the reflectivity analysis of the written documents (i.e. weekly tasks and journal entries) showed that the participants mostly performed descriptive writing (DW) and dialogic reflection (D/R) which show the lack of critical thought.

Additionally, the participants' dialogic reflectivity significantly changed starting from the sixth week of the instruction. However, no increase in the critical reflection was observed.

Finally, the results of the fourth research question investigating the relative contribution of the INSET and other MA courses to the participants' research knowledge indicated that every course they attended in the MA in TEFL program was believed to somehow contribute to their research knowledge. Applied linguistics course was stated to inform them about doing literature review and synthesizing ideas from various sources. Moreover, Testing Principles in EFL course was believed to help them develop better tests with good quality items which is significant to collect reliable data in their teacher research projects. Furthermore, they claimed that Research Methods course contributed to their research knowledge in terms of statistical analysis and interpretation which is good for them to understand academic articles they read for literature review. Finally, participants explained that as a result of hands-on experience, individual feedback received from the instructor and the discussions in weekly meetings, they learned how to conduct teacher-research to solve problems in their teaching contexts. Therefore, each course within the MA in TEFL program contributed to the research knowledge of the participants. However, INSET course was believed to be the only one to contribute to their research practice.

CHAPTER 5

CONCLUSION AND IMPLICATIONS

The purpose of this study was to investigate the possible contribution of the *Current Issues in INSET and Professional Development* course as one of the required components of an MA program in TEFL to help participating EFL teachers develop further as motivated and efficacious teacher-researchers who can explore their own practice in their teaching contexts. In doing so, the effect of instruction on participants' research knowledge and practice, motivation for research, efficacy in research and reflectivity were also evaluated. Finally, their ideas about the relative contribution of the INSET course and other MA courses they attended on their research knowledge were analyzed.

With specific relation to the first research question aiming at investigating the effects of the instruction on participants' research knowledge, results showed that participants had some research knowledge at the outset of the INSET course. Specifically speaking, they knew that research is a way of solving problems by collecting data following some steps in a systematic manner. They were also aware of the fact that data have to be analyzed. However, statistical analysis was believed to be the only way for analysis. Additionally, from the beginning of instruction, the importance of research results to give ideas for teachers was fore fronted which showed the pragmatic perspective of research (Borg, 2013). It is also noteworthy that although they thought that research can be done by both academicians and teachers, participants' understandings of research was incomplete in the sense that they did not know specific characteristics of academic and teacher research. Therefore, it can be concluded that the participants had the construct of research as a general term without knowing the details related to it.

These results are in accord with previous research which investigated teachers' conceptions

of research (Borg, 2009, 2013; McNamara, 2002; Rainey, 2000, Ratcliffee et al. 2004; Shkedi, 1998). All of these studies provided evidence for research knowledge of teachers without being exposed to any formal instruction.

The findings related to the participants' engagement *in* research before the instruction demonstrated that although most of the participants agreed with the teachers' engagement in research in order to solve problems and teach better, some of them stated that they did not do research because of time limitations, loaded programs, and not knowing much about conducting research.

These barriers stated to prevent participants from being research engaged were parallel with many previous studies (Allwright, 1993; Allison and Carey, 2007; Allwright and Hanks, 2009; Atay, 2006; Borg, 2003; Borg, 2007; Borg, 2009; Burns, 2009; Edwards, 2005; Henson, 2001; Maharaj-Sharma, 2011). All these studies shed light to the factors that deter teachers from practicing research actively.

On the other hand, with specific relation to engagement *with* research, the majority of the participants stated reading published research by accessing relevant readings through their institutions' libraries. Most of the participants also believed that academicians and teachers should conduct different types of research because of the distinctions in their purposes. This result is in line with the findings of some studies (Borg, 2003, 2007, 2009, 2013) which investigated how teachers were engaged in research. Additionally, as mentioned earlier, some of them preferred reading discussion forums. This preference to read forums, which are online platforms to discuss and share ideas, supports the results of previous studies in which the participants claimed the difficulty in understanding published research full of inapplicable results (Borg, 2003, 2007, 2009, 2013).

In order to investigate the effect of instruction, participants' research knowledge and

practice were also investigated after 15-weeks of instruction during which they were required to read, discuss, reflect, and do research. Findings showed no difference in the participating teachers' research knowledge; however, it is clear that the existing knowledge they had before the instruction was elaborated and expanded by creating a more detailed structure of research as a construct within the INSET course.

These findings concur with the findings of the studies which were conducted in formal settings such as in an MA program (Atay, 2008; Borg, 2009; Edwards and Willis, 2005; Kiely et al., 2004; Reis-Jorge, 2007; Wyatt, 2010; Yaylı, 2012). Despite not stating that there appeared to be no change but broadening in the participants' research knowledge clearly, it is probable that in all these studies, participants who are BA graduates started with some pre-existing research knowledge and then expanded it with the formal instruction to which they were exposed to.

Moreover, the participants emphasized the close relationship of the research process with professional development in order to gain insight into their teaching. Therefore, they started to think of research as a way of professional development which is commonly stated in previous studies (Akyel, 2000; Benton and Wasko, 2000; Özdemir, 2001; Macaro and Mutton, 2002; Stremmel, 2002; Atay, 2006; Atay, 2008; Roberts, Crawford and Hickman, 2010; Korucu, 2011; Ross and Bruce, 2012; Gao and Kwan Chow, 2012) showing evidence for the positive effect of research engagement on professional development.

In addition to the investigation of the effect of instruction on the participants' research knowledge, the effects on their research practice was also investigated at the end of instruction. Findings fore fronted participating teachers' beliefs regarding the gap between theory and practice. As indicated previously, they had deep anxiety about not finding anything relevant to their problems and practical ideas with which to apply to their teaching found in the academic

research due to different aims and methods. They also believed that academics are far removed from the reality of teaching contexts. As Freeman (1999) suggested this understanding may also be due to the fact that some researchers do not place *the knower of the story* at the center. Additionally, the strictly controlled research methodology of the academic articles might have hindered teachers from reading academic research itself.

With specific relation to participating teachers' research practice, the INSET course has caused some changes mostly owing to the engagement in hands-on activities to conduct research as a requirement. Yet, even though the percentage of the participants who agreed on the teachers' engagement in/with research increased after the instruction, they still felt that following the steps of academic research was too time consuming and burdensome. Participants also complained about the challenges with which they had to cope, such as reviewing the literature, collecting, and analyzing data.

At present, there is a common agreement that it is not possible for language teachers to apply what they were instructed in the INSET course into their daily life due to the demanding and strict cycle which were all for research purposes in a formal setting. However, since the setting of the research was an MA in TEFL program, it was necessary to accomplish all the requirements for academic purposes. Hence, as Allwright (1997) suggested, instead of creating such a burden for EFL teachers who do not have adequate time and support and who would do amateur research unwillingly by suffering, they should be encouraged to understand the problems in their contexts and find practical solutions within a more flexible research cycle. For the instructional purposes, the participants were required to publicize their research projects. However, when they engage in research out of MA program, they do not have to follow such a strict cycle and publicize their reports. Instead, they can do research just with the purpose of finding practical solutions.

In addition to participants' research knowledge and practice, their motivation for research and efficacy in research were also investigated both before and after the instruction. Regarding teachers' motivation for research, questionnaire, interview, and essay findings showed that professional development, being curious about the issues in ELT and solving problems were the factors that motivate them mostly. On the other hand, loaded schedules, and inflexible curriculums were felt to be demotivating before the instruction. After the instruction, professional development, problem solving, improving teaching abilities were among the motivating factors. On the other hand, challenge of the research process, lack of administrative support, and loaded schedules were also felt to be demotivating. The challenge that participants faced during research engagement was due to the loaded syllabus and strict research cycle required for instructional purposes. However, they can apply the theoretical knowledge they learned in the INSET course to find practical solutions for the problems they encounter in their teaching contexts.

These findings support previous studies which have shed light on factors that motivate and demotivate teachers (Wilby, 1989; Coladarci, 1992; Pennington, 1992; Nunan and Lamb, 1996; Gherali-Roussos, 2003; Suslu, 2006; Praver and Oga-Baldvin, 2008; Bernaus, Wilson and Gardner, 2009; Falaut, 2010). Moreover, these results concur with the findings of the studies of which focus is on teachers' research engagement (Meerah, Jorah and Ahmad, 2001; Hardre et al, 2011).

With specific relation to the effect of instruction on teachers' efficacy in research, before the instruction, questionnaire results, interview and essay findings showed that more than half of the participants felt capable in data collection, data interpretation and conducting research. On the other hand, most of the participants did not feel efficacious in doing data analysis because of not having adequate knowledge and thinking of statistical analysis as the only way. After instruction, results showed that nearly all participants felt efficacious in data collection,

interpretation of findings, doing research and doing qualitative data analysis. However, they still did not feel sufficiently capable in doing statistical analysis which might be due to lack of practice and hands-on experience regarding statistical analysis within the related course and might be because of not including it as one of the main components in the syllabus. All in all, findings showed that the instruction affected participants' feelings of efficacy in research significantly.

This positive and significant effect of instruction on participants' feelings of efficacy was found to be similar to the findings of previous studies which investigated the impact of research engagement on these feelings (Cabaroğlu, 2014; Cooper, 2009; Henson, 2001; Liu, 2009; Seider and Lemma, 2006). In addition, the findings of the study contribute to the field by providing results demonstrating the impact of research-engagement on feelings of efficacy in research instead of teaching.

Regarding the reflectivity of the participating EFL teachers, as it was stated previously, results showed that participants' dialogic reflectivity significantly changed starting from the middle of the instruction. This change shows that participants started to develop a critical eye to find explanation for why an event happens starting from the middle of the instruction. This result is parallel to the findings of the previous studies (Carr and Kemmis, 1986; Ciriella, Valli and Taylor, 1991; Dinkelman, 2003; Chant, Heafner and Bennet, 2004; Carlo, Hinkhouse and Isbell, 2010; Hagevik, Aydeniz and Rowell, 2012).

However, there appeared to be no increase in the critical reflection showing the participants' lack of awareness regarding the impact of historical and social contexts on their instruction and teaching context. There may be several reasons for this result. First of all, due to being a major and higher-order thinking skill (Beyer, 1995), critical thinking is suggested to be incorporated into education systems starting from the very beginning of education life (Paul

et al., 1989). Therefore, not having an education system in which critical thinking is embedded in its curriculum can be one of the probable reasons. In other words, as fore fronted by Halpern (1998), the priority given to the instruction of content knowledge solely has to be replaced with teaching that integrates critical thinking. Secondly, as it was suggested by Gelder (2010) that the development of critical reflection requires more than a course or a semester. It is a higher order skill which can improve in a long period of time by the help of explicit and continuous practice. Within the framework of this one-semester course study, critical reflection could not be possibly expected to develop if participants' prior education did not focus on the development of this ability. Moreover, Roberts (1998; pg. 58) claimed that learner teachers in in-service education programs interpret reflective developmental tasks as imposed course requirements without assigning any real meaning to them. He also pointed out that using reflective tasks requiring students to write reflective assignments as part of performance assessment hinders teachers' engagement in reflective thought. In the case of the present study, may be the participating teachers were too overloaded with the requirements. Furthermore, Schön (as cited in Roberts, 1998; pg. 53) stated that traditional school culture engaging teachers in day-to-day work with loaded schedules and extra responsibilities impede teachers' reflective thinking. Therefore, the participating teachers might not have been supported in reflective thinking. Finally, the participating EFL teachers were required to reflect critically on the social and historical issues regarding their teaching contexts in a different setting. Therefore, the concern for social desirability and not being in the context to be reflected on might have hindered their critical reflection.

Finally, participants indicated that every course they attended in the MA in TEFL program somehow contributed to their knowledge of research. An applied linguistics course which was offered as a prerequisite to their MA courses was stated to teach them how to do literature review and synthesize ideas from various sources. Moreover, Testing Principles in

EFL course was believed to help them develop better tests with good quality items which is significant in order to collect reliable data in their teacher research projects. Next, they commonly agreed upon the fact that the Research Methods course contributed to their research knowledge a lot in terms of statistical analysis and interpretation, which is good for them to understand academic articles. Finally, participants stated that as a result of hands-on experience, individual feedback received from the instructor and the discussions in weekly meetings, they learned how to conduct teacher-research in order to solve problems in their teaching contexts. Therefore, each course within the MA in TEFL program contributed to the research knowledge of the participants. However, the INSET course was believed to be the only one to contribute to their research practice.

5.1. Implications of the Study

The present study has implications for both the INSET course and the field of language teacher education. To begin, the results of the present study provided insights into the design of undergraduate and graduate teacher education programs. Language teachers should be introduced to research during their undergraduate years and they should be provided with necessary information to explore their own teaching practices during their teaching career. Additionally, MA in TEFL programs, which serve as professional development settings for language teachers should integrate hands-on experience through research engagement and activities aiming at improving the research skills of the MA students into their course syllabuses with the purpose of narrowing the gap between theory and practice.

Secondly, the findings of this study imply that demotivating factors preventing teachers from research engagement should be taken into consideration by the administrators. That is, work conditions of language teachers, extracurricular responsibilities imposed on them and workloads should be improved in order to allow educators some time for professional development. Furthermore, the administrators should have the awareness and should be

conscious about the contribution of such engagement on language teachers' professional development. In other words, they need to support and encourage teachers to be involved in such activities.

The findings also showed that despite valuing the process of research engagement, participants complained about the challenging process of research engagement, which mostly results from the inflexible nature of teacher-research cycle. Therefore, as proposed by Allwright (1993, 1998, 2007), the emphasis should be placed on *understanding* rather than *problem-solving* and *puzzling event* instead of *problem* which is burdensome and causes a negative feeling about the teaching context.

Next, results showed that EFL teachers have difficulty in understanding and finding applicable ideas in academic research. Therefore, the collaboration and cooperation between teachers and researchers should be enhanced and teachers should be provided with valid and reliable findings applicable in their teaching contexts.

In addition, reflective thought, which is believed to contribute to professional development by reframing problems resulting in a variety of possible solutions (Dewey, 1946) should be taught explicitly by incorporating reflective activities into curricula starting from the very beginning of one's education. In other words, reflecting on practical experiences such as research engagement should be encouraged as one of the career-long teacher learning activities including initial teacher education (Vries et al., 2014).

5.2. Limitations of the Study

The present study has some limitations too. The first limitation lies in the fact that the researcher herself instructed the INSET course which served as the treatment. In other words, the lack of an external researcher throughout the data collection process might have affected the credibility and objectivity of the researcher who was the instructor. Moreover, since the researcher is the instructor of the course, the participants might have been hesitant to indicate

their genuine feelings during the interviews and in their essays. However, it was not probable to collect data by the help of another researcher since data collection was linked to instruction (Sorensen, 2014).

Furthermore, being in a formal education setting and due to fairness concerns, the participants were required to engage in a structured research process, which was burdensome and tiring.

Finally, the study investigated the effect of instruction on participants' research knowledge and practice. In order to see long-term effects of instruction, participants should have been followed up in their teaching contexts out of the structured MA in TEFL program. Unfortunately, due to time constraints, only the immediate effects of instruction could have been investigated.

5.3. Recommendations for further Research

Despite the limitations discussed in the previous section, this study also provides foundations for further research.

First of all, since the factors that motivate and demotivate teachers can change in different contexts, it is recommended to replicate the present study in different contexts. Additionally, as a result of the differences in education systems and school cultures, further research is necessary to investigate the differences in research knowledge of the teachers in different countries.

Moreover, the syllabus of the INSET course should be modified due to the challenge it caused with its strict design.

Further research should also investigate the research practices of the participants out of the borders of MA in TEFL program which is a structured context.

Finally, further research is needed to investigate EFL teachers' motivations for research and efficacy in research in different contexts since it has not yet been previously investigated.

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APPENDIX A

ENGLISH LANGUAGE TEACHERS' RESEARCH KNOWLEDGE

What does 'research' mean to you and what role does it play in your life as a professional English language teacher? These are important questions in our field—especially at a time when in many countries teachers are being encouraged to do research as a form of professional development. This Survey of English Language Teachers asks you for your views on these issues and will take 15–20 minutes to complete.
Thank you for your interest in contributing.

SECTION 1: SCENARIOS

The purpose of this section is to elicit your views on the kinds of activities which can be called research. There are no right or wrong answers. Read each description below and choose one answer to say to what extent you feel the activity described is an example of research.

1.A teacher noticed that an activity she used in class did not work well. She thought about this after the lesson and made some notes in her diary. She tried something different in her next lesson. This time the activity was more successful.

Definitely not research ☐	Probably not research ☐	Probably research ☐	Definitely research ☐

2. A teacher read about a new approach to teaching writing and decided to try it out in his class over a period of two weeks. He video recorded some of his lessons and collected samples of learners' written work. He analyzed this information then presented the results to his colleagues at a staff meeting.

Definitely not research ☐	Probably not research ☐	Probably research ☐	Definitely research ☐

3. A teacher was doing an MA course. She read several books and articles about grammar teaching then wrote an essay of 6000 words in which she discussed the main points in those readings.

Definitely not research ☐	Probably not research ☐	Probably research ☐	Definitely research ☐

4. A university lecturer gave a questionnaire about the use of computers in language teaching to 500 teachers. Statistics were used to analyze the questionnaires. The lecturer wrote an article about the work in an academic journal.

Definitely not research ☐	Probably not research ☐	Probably research ☐	Definitely research ☐

5. Two teachers were both interested in discipline. They observed each other's lessons once a week for three months and made notes about how they controlled their classes. They discussed their notes and wrote a short article about what they learned for the newsletter of the national language teachers' association.

Definitely not research ☐	Probably not research ☐	Probably research ☐	Definitely research ☐

6. To find out which of two methods for teaching vocabulary was more Effective, a teacher first tested two classes. Then for four weeks she taught vocabulary to each class using a different method. After that she tested both groups again and compared the results to the first test. She decided to use the method which worked best in her own teaching.

Definitely not research ☐	Probably not research ☐	Probably research ☐	Definitely research ☐

7. A headmaster met every teacher individually and asked them about their working conditions. The head made notes about the teachers' answers. He used his notes to write a report which he submitted to the Ministry of Education.

Definitely not research ☐	Probably not research ☐	Probably research ☐	Definitely research ☐

8. Mid-way through a course, a teacher gave a class of 30 students a feedback form. The next day, five students handed in their completed forms. The teacher read these and used the information to decide what to do in the second part of the course.

Definitely not research ☐	Probably not research ☐	Probably research ☐	Definitely research ☐

9. A teacher trainer asked his trainees to write an essay about ways of motivating teenage learners of English. After reading the assignments the trainer decided to write an article on the trainees' ideas about motivation. He submitted his article to a professional journal.

Definitely not research ☐	Probably not research ☐	Probably research ☐	Definitely research ☐

10. The Head of the English department wanted to know what teachers thought of the new course book. She gave all teachers a questionnaire to complete, studied their responses, then presented the results at a staff meeting.

Definitely not research ☐	Probably not research ☐	Probably research ☐	Definitely research ☐

SECTION 2: CHARACTERISTICS OF RESEARCH

1. Here is a list of characteristics that research may have. Tick ONE box for each to give your opinion about how important it is in conducting research.

	Unimportant	Moderately Important	Unsure	Important	Very Important
a. The number of participants depends on the type of research.	☐	☐	☐	☐	☐
b. A large volume of information is collected.	☐	☐	☐	☐	☐
c. Experiments are used.	☐	☐	☐	☐	☐
d. Hypotheses are tested.	☐	☐	☐	☐	☐
e. Numerical information is analyzed statistically.	☐	☐	☐	☐	☐
f. Questionnaires are used.	☐	☐	☐	☐	☐
g. The researcher is objective.	☐	☐	☐	☐	☐
h. The results apply to many ELT contexts.	☐	☐	☐	☐	☐
i. The results are made public.	☐	☐	☐	☐	☐
j. The results give teachers ideas they can use.	☐	☐	☐	☐	☐
k. Variables are controlled.	☐	☐	☐	☐	☐
l. Verbal data is analyzed with content analysis.	☐	☐	☐	☐	☐
m. For qualitative research data can be collected through interviews.	☐	☐	☐	☐	☐
n. For quantitative research data can be collected through questionnaires.	☐	☐	☐	☐	☐

2. If there are any other characteristics which in your opinion a research must have, please state here.

SECTION 3: RESEARCH CULTURE

Tick ONE box for each statement below to give your opinion about the general attitude to research in your school.

	Strongly Disagree	***Disagree***	***Don't know***	***Agree***	***Strongly Agree***
a. Teachers do research themselves.	☐	☐	☐	☐	☐
b. The management encourages teachers to do research.	☐	☐	☐	☐	☐
c. Teachers feel that doing research is an important part of their job.	☐	☐	☐	☐	☐
d. Teachers have access to research journals and books.	☐	☐	☐	☐	☐
e. Teachers have opportunities to learn about current research.	☐	☐	☐	☐	☐
f. Teachers talk about research.	☐	☐	☐	☐	☐
g. Teachers are given support to attend ELT conferences.	☐	☐	☐	☐	☐
h. Time for doing research is built into teachers' workload.	☐	☐	☐	☐	☐
i. Teachers read published research.	☐	☐	☐	☐	☐

SECTION 4: READING RESEARCH

1.How frequently do you read published language teaching research? (Tick ONE)

Never ☐	Rarely ☐	Sometimes ☐	Often ☐

2. You said that you read published language teaching research often or sometimes. Which of the following do you read? (Tick all that apply)

Books	☐
Academic journals (e.g. TESOL Quarterly)	☐
Professional Journals (e.g. ELT Journal)	☐
Professional Magazines (e.g. ELT Professional)	☐
Newsletters (e.g. IATEFL SIG Newsletters)	☐
Web-based sources of research	☐
Other :	☐

3. To what extent does the research you read influence your teaching? Choose ONE.

It has no influence on what I do in the classroom.	☐
It has a slight influence on what I do in the classroom.	☐
It has a moderate influence on what I do in the classroom.	☐
It has a fairly strong influence on what I do in the classroom.	☐
It has a strong influence on what I do in the classroom.	☐

Now go to Section 5

4. In Question 1 of this section you said that you read published research rarely or never. Here are some possible reasons for this. Tick those that are true for you.

a. I am not interested in research.	☐
b. I do not have time.	☐
c. I do not have access to books or journals.	☐
d. I find published research hard to understand.	☐
e. Published research does not give me practical advice for the classroom	☐
f. Other reasons please specify:	☐

SECTION 5: DOING RESEARCH

1.How frequently do you do research yourself? (Tick ONE)

Never ☐	Rarely ☐	Sometimes ☐	Often ☐

If you choose Rarely or Never go straight to Question 3 in this section.

2. You said you do research often or sometimes. Below are a number of possible reasons for doing research. Tick those which are true for you.

'I do research . . ..

a. As part of a course I am studying on.	☐
b. Because I enjoy it.	☐
c. Because it is good for my professional development.	☐
d. Because it will help me get a promotion.	☐
e. Because my employer expects me to.	☐
f. Because other teachers can learn from the findings of my work.	☐
g. To contribute to the improvement of the school generally.	☐
h. To find better ways of teaching.	☐
i. To solve problems in my teaching.	☐
j. Other reasons (please specify):	☐

Now go to Section 6

3. You said that you do research rarely or never. Below are a number of possible reasons for not doing research. Tick those which are true for you.

'I don't do research because . . .

a. I do not know enough about research methods.	☐
b. My job is to teach, not to do research.	☐
c. I do not have time to do research.	☐
d. My employer discourages it.	☐
e. I am not interested in doing research.	☐
f. I need someone to advise me but no one is available.	☐
g. Most of my colleagues do not do research.	☐
h. I do not have access to the books and journals that I need.	☐
i. The learners would not cooperate if I did research in the class.	☐
j. Other teachers would not cooperate if I asked for their help.	☐
k. Other reasons (please specify):	☐

SECTION 6: ABOUT YOURSELF

1.City where you work: _____

2. Years of experience as an English language teacher (Tick ONE)

0-4 ☐	5-9 ☐	10-14 ☐	15-19 ☐	20-24 ☐	25+ ☐

3. Highest relevant qualification to ELT (Tick ONE)

Certificate ☐	Diploma ☐	Bachelor's ☐	Master's ☐	Doctorate ☐	Other ☐

4. Type of institution you teach English in most often (Tick ONE)

Private ☐	State ☐	Other ☐

5. The age of the learners you teach most often (Tick ONE)

12 or younger ☐	13-19 ☐	20-25 ☐	26+ ☐

6. How would you describe your work as an English language teacher? (Tick ONE)

I teach English full-time	☐
I teach English part-time	☐

This completes the questionnaire. Thank you for taking the time to respond.

APPENDIX B. TEACHERS' EFFICACY IN RESEARCH QUESTIONNAIRE

Suppose you want to do research in your classroom. Read the following statements and check **1** for **Strongly Disagree**, **2** for **Disagree**, **3** for **Agree** and **4** for **Strongly Agree**

1.	I feel I can define what teacher research is.	1	2	3	4
2.	I feel I can identify some research topics in my classroom.	1	2	3	4
3.	I feel I can understand research articles.	1	2	3	4
4.	I feel I can write research questions on topics I choose.	1	2	3	4
5.	I feel I can write hypotheses about a research question in my classroom.	1	2	3	4
6.	I feel I can find articles and books related to my research.	1	2	3	4
7.	I feel I can use information from articles and books in writing my research paper.	1	2	3	4
8.	I feel I can collect information by observing a class.	1	2	3	4
9.	I feel I can analyze transcriptions of audio and video recordings.	1	2	3	4
10.	I feel I can choose the most appropriate method to do research on my topic.	1	2	3	4
11.	I feel I can prepare a questionnaire to collect information for my research.	1	2	3	4
12.	I feel I can transcribe audio and video recordings.	1	2	3	4
13.	I feel I can do an interview to collect information.	1	2	3	4
14.	I feel I can collect information by taking notes during observation.	1	2	3	4
15.	I feel I can analyze the data collected through a questionnaire.	1	2	3	4
16.	I feel I can categorize and code the data obtained from written documents.	1	2	3	4
17.	I feel I can collect data through audio and/or video recording.	1	2	3	4
18.	I feel I can use statistics to analyze my data.	1	2	3	4
19.	I feel I can use the findings of my research to solve teaching problems in my classroom.	1	2	3	4
20.	I feel I can present the findings of my research clearly.	1	2	3	4
21.	I feel I can apply the results of my research to my teaching.	1	2	3	4
22.	I feel I can work with other teachers to do research as a team.	1	2	3	4
23.	I feel I can use school library to reach books and articles about my research.	1	2	3	4
24.	I feel I can define the concepts in my research study clearly.	1	2	3	4
25.	I feel I can save some time in my daily life to spend on doing research.	1	2	3	4
26.	I feel I can work with my students to do research.	1	2	3	4
27.	I feel I can use different methods in doing research.	1	2	3	4
28.	I feel I can do research on topics related to my classroom.	1	2	3	4
29.	I feel I can do research on topics related to teaching English in Turkey.	1	2	3	4
30.	I feel I can do research on most of the topics that attract me.	1	2	3	4

31.	I feel I can analyze the data collected through observation.	1	2	3	4
32.	I feel I can combine and analyze the data collected through different instruments.	1	2	3	4
33.	I feel I can apply my findings to teaching to see if they work.	1	2	3	4

PPENDIX C

TEACHERS' MOTIVATION FOR RESEARCH QUESTIONNAIRE

This questionnaire aims to elicit your opinion about the following statements.

Read the following statements and check **1** for **Not at all True**, **2** for **Not true**, **3** for **True** and **4** for **Very much True**

		Not at all true	Not true	True	Very much True
1.	I do research to investigate issues in the field.				
2.	I do research because I like finding solutions for my teaching problems.				
3.	I do research because it contributes to the improvement of the school.				
4.	I do research because I like trying new teaching methods.				
5.	I do research because it encourages me to be in a continuous reflective process.				
6.	I do research because I like to do it.				
7.	I do research because I like sharing the research results with my colleagues.				
8.	I do research because it helps me keep up with the recent developments in the field.				
9.	I do research because I like to discuss results with my colleagues.				
10.	I do research because it helps me better understand my students' expectancies.				
11.	I do research because I like reading published research studies.				
12.	I do research to find solutions for the problems in my teaching.				
13.	I do research because it helps modifying my teaching materials.				
14.	I do research to get a promotion.				
15.	I do research because it is part of my contract.				
16.	I do research because I have to keep my job.				
17.	I do research because administration supports teachers to attend ELT conferences and seminars.				
18.	I do research to be paid extra.				
19.	I do research because administration supports teachers to do research.				
20.	I like to test the effectiveness of suggested techniques in my teaching.				
21.	I do research to improve my teaching abilities.				
22.	I do research because administration encourages teachers to talk about their research findings.				
23.	I do research because administration facilitates teachers' access to journals and books.				
24.	I do research because administration provides opportunities to teachers to learn about current issues.				
25.	I do research not to lose my job.				

APPENDIX D

ESSAY GUIDELINE AND INTERVIEW QUESTIONS TO ELICIT RESEARCH KNOWLEDGE AND PRACTICE

Research Knowledge

1. What is research?
2. What are the steps in conducting research?
3. What is the difference between qualitative and quantitative research?
4. What are the data collection methods?
5. Do you know how to analyze data?
6. Do you know how to interpret the results of data analysis?

Research Practice

1. Should teachers do research? Why/not?
2. Should teachers and applied linguists conduct same type of research? Why/not?
3. Do you practice doing research?
4. If your answer is 'yes' to question 4, how frequently do you do?
5. If your answer is 'yes' to question 4, what kind of help do you need?
6. If your answer is 'no' to question 4, why don't you do?
7. Do you have an access to published research?
8. If yes, what type of journals do you prefer to read?
   a. ELT Journal
   b. TESOL Quarterly
   c. Forum
   d. Teacher Education
9. Do you find what you read helpful? Why/not?

APPENDIX E

INTERVIEW QUESTIONS ABOUT EFFICACY IN RESEARCH

1. Do you feel capable of conducting research? Why/ not?
2. Do you feel capable of investigating problems in your classroom? Why/not?
3. Do you feel capable of collecting data that you need to solve the problems?
4. Do you feel capable of analyzing the data you collect? Why/not?
5. Do you feel capable of reporting results the results in your practice?
6. Do you feel capable of applying results into your teaching?
7. Do you feel capable of understanding published research?

APPENDIX F

INTERVIEW QUESTIONS ABOUT THE MOTIVATION FOR RESEARCH

1. What motivates a teacher for carrying out a research?
2. Are you motivated to conduct research?
3. If yes, what motivates you to conduct research?
4. If your answer is ‘no’, what demotivates you to conduct research?
5. Do you read recent research in the field? Why/not?
6. Do you think that you will implement the results in your teaching? Why/not?
7. If you do research, is it because of external factors (e.g., getting a promotion) or internal factors (e.g., professional development)?

APPENDIX G

GUIDELINES FOR WEEKLY WRITTEN TASKS

The aim of the weekly tasks is to raise the student-teachers' awareness of their own teaching and helping them develop as reflective professionals. From the standpoint of professional development, critical reflection is believed to trigger a deeper understanding of teaching (Richards, 1994). It involves examining teaching and learning experiences as a basis for evaluation, decision-making and the source for change. A critical reflective teacher poses questions about the system they are involved in, their own practice and the alternatives. In other words, reflective tasks underpin teachers' action. For this purpose, the student teachers are required to accomplish weekly reflective tasks.

WEEKLY REFLECTIVE TASKS

WEEK 1:

Purpose of the task: To raise the student teachers' awareness of their teaching and the role of research in their profession**.**

Task: Write an essay and ask yourself the following questions as a language teacher? (adapted from Richards and Lockhart, 1994)

a. What is the source of my ideas about language teaching?
b. Where am I in my professional development?
c. How am I developing as a language teacher?
d. What are my strengths/weaknesses as a language teacher?
e. What are my limitations at present?
f. How can I improve my language teaching?

WEEK 2

Purpose of the task: Helping students develop the awareness of the significance of being research engaged

Task: Long (as cited in Nunan, 1984) suggest that teacher involvement in research;

- provides teachers with useful information about what actually happens in their classrooms
- gives teachers techniques for monitoring and evaluating their own teaching and the teaching of their peers, and
- helps teachers resist bandwagons.

a) Given your own teaching situation, what do you think the role of teachers' engagement in research is?

WEEK 3

Purpose of the task: Analyzing the action research process through reading and reflecting on an action research project.

Read the sample action research project (Richards, 1999, p. 203) and write a reflective paper concerning this research.

WEEK 4

Purpose of the task: Helping student-teachers identify the possible problems in their teaching.

1. Reflect on your lessons by following the questions below and state the problem(s) that occur during the lesson.
   a. Are there any problems in your teaching process?
   b. Do you think you need to make any changes in your present teaching in relation to the following:

- Teaching techniques
- Classroom management
- Goals and objectives
- If there are any other points, please add them.

   c. What are your strengths and weaknesses as a teacher?
   d. Identify a problem to solve.

WEEK 5

Purpose of the task: Helping students improve their literature review skills.

1. Find three articles and one book written about the problem you identified. Summarize them and write a literature review in which you synthesize the ideas.
2. Write a reflection paper on performing the task of planning and writing the literature review.

WEEK 6

Purpose of the task: Helping student-teachers identify the most appropriate data collection method for different problems.

Task: Read the following situations. Which data collection method would be most appropriate; teaching journal, lesson reports, surveys and questionnaires, audio and video-recording, observation or interviewing? What are the advantages and disadvantages of the procedure you selected? (Adapted from Richards and Lockhart, 1994).

a. You are concerned about your students' attitudes toward English and toward language learning. You try to promote positive attitudes toward learning English. You wish to find out what your students' attitudes are and whether change throughout the duration of a language course.
b. You are very conscientious about planning your lessons, but somehow they never seem to go according to plan. You rarely have time to get through all the material that you had planned. You want to find out why this is happening.
c. You are concerned about one of your students who always avoids sitting near the front of the class. This student seems to be paying attention, but rarely participates actively in lessons. You are not sure why. Since you have a large class, it is difficult for you to monitor individual students. You want to find out what this student's attitude is toward the class, how the student approaches learning, and whether the student is benefitting from the class.
d. You have been teaching English to elementary students for several years, and colleagues point out that you have developed a special kind of "teacher's English". You want to investigate whether this is true, what these features are, and whether it helps or hinders your teaching.
e. You have been experimenting with a process approach for teaching writing (i.e., one in which you encourage students to go through a number of stages when completing a writing task, from planning to drafting, to reviewing and revising). You want to find

out if students actually find this approach useful and whether they use it on writing assignments outside of class.

WEEK 7

Purpose of the task: Helping student-teachers develop recorded data collection and analysis skills and reflect on their development as teacher-researchers.

Task: Make an interview with one of your colleagues or students on one of the educational issues. Record, transcribe and analyze the data.

- After the analysis, write a reflective paper in which you discuss the difficulties you encountered during the transcription and analysis phases and the Effects of this data gathering method on your teaching and research skills?

WEEK 8

Purpose of the task: Practicing observation as a data collection method**.** Raising student-teachers' awareness of the significance of peer feedback in professional development and identifying problems.

Task: Observe one of your colleagues lesson by using tally sheet for analyzing classroom interaction which will be provided by the instructor (Nunan, 1989, p.78).

1. Write a reflective essay and discuss the difficulties, advantages and disadvantages of using a tally sheet to observe?
2. What would be some suitable issues for research in the class you observed? Discuss with your colleague and decide.

WEEK 9

Purpose of the task: Helping student-teachers develop written data collection and analysis skills.

Task: Ask one of your colleagues to write a reflective teaching journal for one of his/her lessons.

1. Do the content analysis.

2. Reflect on the process of analysis.

WEEK 10

Purpose of the task: Helping students search for, understand and reflect on published teacher-research articles

Task: Find a research article of which focus is teacher-research and reflect on the article

- Summarize the aim, methodology and the results of the article
- Reflect on the design of the study by discussing any possible drawbacks and limitations.
- Reflect on the possibility of implementing of the results in your own context.

APPENDIX H

JOURNAL ENTRY GUIDELINE

- Reflect on your process of conducting research weekly starting from week four.
- Each entry should include your reflection on one-step of research process.
- Write about the difficulties you encountered, your strategies to overcome those difficulties.
- Write about your gains from each step as a teacher-researcher.

APPENDIX I

REFLECTIVITY CRITERIA (Hatton & Smith, 1995)

Criteria for the Recognition of Evidence for Different Types of Reflective Writing

Descriptive Writing

- *Not* reflective.

- Description of events that occurred/report of literature.

- No attempt to provide reasons/justification for events.

Descriptive Reflection

- Reflective, not only a description of events but some attempt to provide reason justification for events or actions but in a reportive or descriptive way. For example, "I chose this problem-solving activity because I believe that students should be active rather than passive learners."

- Recognition of *alternate* viewpoints in the research and literature which are reported. For example, Tyler (1949), because of the assumptions on which his approach rests suggests that the curriculum process should begin with objectives. Yinger (1979), on the other hand argues that the "task" is the starting point.

- Two forms:

(a) Reflection based generally on one perspective/factor as rationale.

(b) Reflection is based on the recognition of multiple factors and perspectives.

Dialogic Reflection

- Demonstrates a "stepping back" from the events/actions leading to a different level of mulling about, discourse with self and exploring the experience, events, and actions using qualities of judgments and possible alternatives for explaining and hypothesizing.

Such reflection is analytical or/and integrative of factors and perspectives and may recognize inconsistencies in attempting to provide rationales and critique, for example, "While I had

planned to use mainly written text materials I became aware very quickly that a number of students did not respond to these.

Thinking about this now there may have been several reasons for this. A number of students, while reasonably proficient in English, even though they had been NESB learners, may still have lacked some confidence in handling the level of language in the text. Alternatively, a number of students may have been visual and tactile learners. In any case I found that I had to employ more concrete activities in my teaching."

Two forms, as in (a) and (b) above.

Critical Reflection

- Demonstrates an awareness that actions and events are not only located in, and explicable by, reference to multiple perspectives but are located in, and influenced by multiple historical, and socio-political contexts. For example, "What must be recognized, however, is that the issues of student management experienced with this class can only be understood within the wider structural locations of power relationships established between teachers and students in schools as social institution based upon the principle of control".

APPENDIX J

ESSAY QUESTIONS TO INVESTIGATE TEACHERS' OPINIONS ABOUT THE CONTRIBUTION OF INSET COURSE AND OTHER COURSES TO THEIR RESEARCH KNOWLEDGE AND PRACTICE

1. Did the INSET course and other courses help you improve your research knowledge? If yes, how?
2. Did the INSET course and other courses contribute to your research practice? If yes, how?
3. Did you enjoy the courses you take ? If yes, what did you enjoy most during the courses?
4. Did you have difficulty during the courses? If yes, in what sense?
5. Did the courses affect your research skills? If yes, how?

APPENDIX K

INSET COURSE SYLLABUS

Aim of the course: The purpose of this course is to help student-teachers develop as motivated teacher-researchers to solve the possible problems in their classrooms by implementing the results of published research and the research they will conduct themselves. In doing so, participants will be provided with readings and opportunities for experimentation to develop their research knowledge and research engagement.

Objectives of the Course: Having finished the course and studied through weekly readings, in-class discussions and weekly tasks assigned and having experimented research in their own contexts, student-teachers will be capable of;

- understanding key concepts and issues in teacher-research
- understanding the importance of teacher-research as a significant component of their profession
- identifying problems in their teaching
- planning a research to solve the problem
- accessing related literature and doing literature review
- deciding on the appropriate research methodology
- collecting data appropriate to the problem
- analyzing both numerical and verbal data
- interpreting the results
- implementing findings into their teaching

The aim of the weekly tasks is to raise the student-teachers' awareness of their own teaching and helping them develop as reflective professionals. From the standpoint of professional development, critical reflection is believed to trigger a deeper understanding of teaching (Richards, 1994). It involves examining teaching and learning experiences as a basis for evaluation, decision -making and the source for change. A critical reflective teacher poses questions about the system they are involved in, their own practice and the alternatives. In other words, reflective tasks underpin teachers' action. For this purpose, the student teachers are required to accomplish weekly reflective tasks.

Requirements of the Course

- Coming to class having read the weekly readings and being ready to participate in class discussions
- Attending the course regularly
- Participating in class discussion
- Completing weekly assigned tasks before coming to the course.
- Conducting independent teacher-research (see Appendix for the guideline)

Assessment Criteria

- Final Exam : 20% (Open book)
- Weekly Reflective tasks: 20% (2% each)
- Teacher-research project: 50%
- Attendance and participation: 10%

Materials

Nunan, D. (1989). *Understanding Language Classroom*. Prentice Hall.

Freeman, D. (1996). *Doing Teacher-research: From Inquiry to Understanding*. Heinle and Heinle Publishers.

Gebhard, J.G. & Oprandy, R. (1999). *Language Teaching Awareness.* Cambridge Language Education.

Lankshear, C. and Knobel, M. (2004). *A Handbook for Teacher Research*. Open University Press.

Roth, W. M. (2007). *Doing Teacher Research*. Sense Publishers.

Week/Date	SUBJECT	READINGS	TASKS	IN-CLASS
1/11th Feb	The course will be introduced and mutual expectations will be discussed.		The students will be assigned to complete weekly task 1.	
2/18th Feb	- What is research? -What is teacher research? - The role of teacher as a researcher - A Rationale for Teacher research	1.An introduction to teacher research (Lankshear &Knobel, 2004; Ch. 1) 2. Basic issues and concerns (Nunan, 1989, Ch. 1) 3. 1. Teacher research and professional development (Nunan, 1989, Ch. 6) 4. Exploring our teaching (Gebhard& Oprandy, 1999, Ch. 1)	The students will be assigned to complete weekly reflective task 2.	- Readings assigned in the previous week will be discussed -In-class discussion on the reflective task assigned in the previous week
3/25th Feb	- Teacher research as a systematic inquiry	1. Teacher research as a systematic inquiry (Lankshear &Knobel, 2004; Ch. 2) 2.The process of exploration (Gebhard& Oprandy, 1999, Ch. 2)	The students will be assigned to complete weekly reflective task 3.	- Readings assigned in the previous week will be discussed -In-class discussion on the reflective task assigned in the previous week
4/ 4th Mar	-Identifying problems and purposes for research	1. Formulating our research purposes: Problems, questions, aims and objectives (Lankshear &Knobel, 2004; Ch. 3) 2. From Questions to planning the project (Freeman, 1998, Ch. 4) 3. Problem posing and solving with action research (Gebhard& Oprandy, 1999, Ch. 4)	The students will be assigned to complete weekly reflective task 4. **- Students identify a problem in their own classrooms to conduct teacher-research by the help of task 4.** -Students will start keeping reflective journals. -They will reflect on the first three reflective tasks in the first entry of their journals.	- Readings assigned in the previous week will be discussed -In-class discussion on the reflective task assigned in the previous week

5/11th Mar	- General approaches - Reviewing the literature	1. General approaches to teacher research (Lankshear &Knobel, 2004; Ch. 4) 2. Informing the study (Lankshear &Knobel, 2004; Ch. 5)	The students will be assigned to complete weekly reflective task 5. -**Students write a brief literature review for their teacher-research projects as suggested in task 5 and decide on the appropriate approach to solve their problems.** -Students will write a journal entry on the process of identifying a research problem.	- Readings assigned in the previous week will be discussed -In-class discussion on the reflective task assigned in the previous week
6/18th Mar	-Quantitative research designs -Quantitative data collection techniques	1. An introduction to teacher research as quantitative investigation (Lankshear &Knobel, 2004; Ch.8)		- Readings assigned in the previous week will be discussed -In-class discussion on the reflective task assigned in the previous week
7/25th Mar	- Qualitative research designs -Qualitative data collection techniques -Triangulation	1. A background to data collection in qualitative research (Lankshear &Knobel, 2004; Ch.9) 2.Collecting and analyzing data (Freeman, 2004, Ch. 5)	The students will be assigned to complete weekly reflective task 6. -**Students will decide on the data collection method for their research.** -Students will write a journal entry on the process of choosing an appropriate method for their research.	- Readings assigned in the previous week will be discussed -In-class discussion on the reflective task assigned in the previous week
8/ 1st Apr	-Collecting spoken data - Analyzing spoken data	1.Collecting spoken data in qualitative research (Lankshear &Knobel, 2004; Ch.10) 2. Analyzing spoken data (Lankshear &Knobel, 2004; Ch.13)	The students will be assigned to complete weekly reflective task 7. -**Students who collected spoken data for their research will do the analysis.**	- Readings assigned in the previous week will be discussed

			- Students will write a journal entry on the process of transcribing and analyzing data.	-In-class discussion on the reflective task assigned in the previous week
9/ 8th Apr	-Collecting observed data -Analyzing observed data	1. Collecting observed data (Lankshear &Knobel, 2004; Ch.11) 2. Classroom observation (Nunan, 1989, Ch. 5) 3. Seeing teaching differently through observation (Gebhard& Oprandy, 1999, Ch. 3) 4. Analyzing observed data (Lankshear &Knobel, 2004; Ch.14)	The students will be assigned to complete weekly reflective task 8. - **Students who collected observed data for their teacher research will do the analysis.** -Students will write a journal entry on the process of observation and analysis of observation data.	- Readings assigned in the previous week will be discussed -In-class discussion on the reflective task assigned in the previous week
10/15th Apr	-Collecting written data -Analyzing written data	1. Collecting written data (Lankshear &Knobel, 2004; Ch.12) 2. Analyzing written data (Lankshear &Knobel, 2004; Ch.15)	The students will be assigned to complete weekly reflective task 9. **-Students who collected written data will do the analysis.** - Students will write a journal entry on the process of collecting written data and analysis.	- Readings assigned in the previous week will be discussed -In-class discussion on the reflective task assigned in the previous week
11/22nd Apr	-Collecting and analyzing questionnaire data		The students will be assigned to complete weekly reflective task 10. - Students will write a journal entry on the process of adapting appropriate questionnaire and doing the analysis.	- Readings assigned in the previous week will be discussed -In-class discussion on the reflective task assigned in the previous week

12/29th Apr	-Reporting research results -Making research public	1. Quality and reporting in teacher research (Lankshear &Knobel, 2004; Ch.16) 2. Reporting teacher research (Nunan, 1989, pp. 121-126)	**Students will write their teacher-research reports** -Students will write a journal entry on the process of reporting their research.	
13/6th May	**PRESENTATIONS OF THE RESEARCH PROJECTS (In-class discussion and feedback session)**			Whole class feedback will be provided to the students' papers.
14/13th May	**PRESENTATIONS OF THE RESEARCH PROJECTS (In-class discussion and feedback session)**			Whole class feedback will be provided to the students' papers.
15/20th May	**FINAL EXAM**			