

**REPUBLIC OF TURKEY
ÇUKUROVA UNIVERSITY
INSTITUTE OF SOCIAL SCIENCES
DEPARTMENT OF ENGLISH LANGUAGE TEACHING**

**LESSON STUDY-A PERSONAL AND PROFESSIONAL DEVELOPMENT
MODEL FOR PRESERVICE ELT TEACHERS**

Ertan ALTINSOY

Ph.D DISSERTATION

ADANA / 2020

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ADANA / 2020

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ÖZET

DERS ARAŞTIRMASI: ADAY İNGİLİZCE ÖĞRETMENLERİ İÇİN KİŞİSEL VE MESLEKİ GELİŞİM MODELİ

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Danışman: Prof. Dr. Zuhall OKAN

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Bu çalışma Japonya kökenli profesyonel gelişim modeli olan “Ders Araştırması”nın Türkiye’de aday İngilizce öğretmeni eğitimine uyarlanmasıdır. Çalışma “Ders Araştırması”nın katılımcı altı öğretmen adayının kişisel ve profesyonel gelişimine etkisini araştırmaktadır ve öğrenme odaklı “Ders Araştırması”nın katılımcıların kişisel mesleki gelişiminde fark yaratıp yaratmadığını ve öğretme sürecine ve öğretim uygulamalarına ilişkin örtük inançlarında ve kişisel teorilerinde olumlu değişikliklere yol açıp açmadığını incelemektedir. Söz konusu araştırma amaçlarına ulaşmak amacıyla çalışma, katılımcıların beş farklı okulda uygulanmış olan ve beş araştırma dersinden oluşan 7 aylık “Ders Araştırması” deneyimlerini belgelemektedir.

Bu araştırma “Ders Araştırması” adı verilen karmaşık olguya ışık tutmayı ve katılımcıları doğal ortamlarında gözlemleyerek ayrıntılı bir yorum sunmayı amaçladığından, çalışmanın metodolojik temeli olarak nitel araştırma yaklaşımı seçilmiştir. Çalışmanın doğası gereği çeşitli veri toplama araçlarıyla büyük miktarda nitel veri toplanmıştır.

Bu çalışmada kullanılan veri toplama araçları; yapılandırılmamış görüşmeler, yarı yapılandırılmış görüşmeler, sınıf gözlem notları, yansıtıcı günceler ve odak grup görüşmeleridir. Toplanan veriler sistematik analiz amacıyla Atlas.Ti ile nitel veri analizine tabi tutulmuştur.

Sonuçlar “Ders Araştırması” uygulamasının katılımcıları kişisel gelişim, öğretim stratejilerinde gelişim, öğrencilerin öğrenmelerine ilişkin artan farkındalık, etkili ders planlama becerisinin artması, profesyonel gelişim, sınıftaki etkileşimi arttırmaya yönelik

daha derin idrak ve öğrenmeye engel teşkil eden öğretmen ve sınıf odaklı konularda artan endişe gibi hususlarda etkilediği tespit edilmiştir.

Katılımcıların profesyonel gelişimlerine ilişkin olarak sonuçlar “Ders Araştırması” sürecinin katılımcı aday İngilizce öğretmenlerinin mesleki gelişimlerine çeşitli hususlarda önemli ölçüde katkıda bulunduğunu ortaya koymuştur. Ancak en güçlü etkinin “Ders Araştırması” gibi mesleki gelişim fırsatlarına yönelik olumlu tutum, işbirlikçi bir ortamda çalışma isteği, öğretme ve öğrenme süreci ile ilgili algılarda olumlu değişiklikler, sınıfın çok boyutlu doğası ve kritik anlar hakkında artan farkındalık ve öğrenci öğrenimine daha fazla odaklanma gibi boyutlarda olduğu gözlemlenmiştir.

Bu çalışma “Ders Araştırması” uygulamasının katılımcı aday İngilizce öğretmenleri üzerinde en güçlü etkinin kişisel gelişimlerine yönelik olduğunu savunan kanıtlar sunması açısından çarpıcı bir sonuç ortaya koymuştur. Sonuçlar “Ders Araştırması” uygulamasının kritik ve geçerli öğretim kararları vermeye ilişkin ve uyarlama becerilerinde gelişmeye yönelik ciddi katkı sağladığı tespit edilmiştir. Sonuçlar ayrıca katılımcıların yaratıcılıkları, öz farkındalıkları ve öğrencilerle yakınlık kurulması hususlarında orta düzeyde bir etkiye işaret etmiştir.

Anahtar Kelimeler: Ders araştırması, aday İngilizce öğretmenleri, profesyonel gelişim, kişisel gelişim, sınıf yönetimi

ABSTRACT**LESSON STUDY-A PERSONAL AND PROFESSIONAL DEVELOPMENT
MODEL FOR PRESERVICE ELT TEACHERS****Ertan ALTINSOY****Doctor of Philosophy, English Language Teaching****Supervisor: Prof. Prof. Dr. Zuhale OKAN****August 2020, 321 pages**

This study is an adaptation of Japanese professional development model “Lesson Study” into preservice English language teacher education in Turkey. The study explores Lesson Study engagement of six preservice teachers to investigate its impact to the personal and professional development for the purpose of observing if Lesson Study makes a difference in the personal and professional growth of the participants and leads to positive changes in their implicit beliefs and personal theories about teaching and instructional practices that is informed by student learning oriented nature of Lesson Study application. To obtain research aims, the study documented seven months Lesson Study experience of the participants consisted of five RLs which were implemented in five different schools.

As the present research aimed to shed light on a complex phenomenon called Lesson Study and provided a detailed interpretation by observing the participants in their natural context, qualitative research approach was chosen as the methodological foundation for the study. By nature of the study large volume of qualitative data was collected by means of variety of data collection tools. The data collection tools employed in the present study were, unstructured Interviews, semi-structured interviews, classroom observation sheets, reflective journals and focus group interviews. The collected data was subjected to qualitative data analysis with Atlas.Ti. to analyse it systematically.

The results revealed that Lesson Study intervention impacted the participants in various aspects at varying degrees such as personal development, improvements in instructional strategies, heightened awareness about student learning, increased ability to plan effective lessons, professional development, deeper appreciation for promoting

interaction in the classroom, and increased concern for teacher related issues and the classroom oriented matters as an obstacles in front of student learning

As for the professional development of the participants, the results revealed that the process contributed to the professional development of participating preservice ELT teachers significantly in a number of ways but the strongest impact was observed in such dimensions as positive attitude towards professional development opportunities like lesson study experience, willingness to work in a collaborative environment, positive changes in perceptions about teaching and learning process, increased awareness about multidimensional nature of classroom and critical moments, and deeper focus on student learning.

The present study offered a striking result by providing evidences to support the claim that Lesson Study procedure had the strongest impact on the personal development of participating pre-service ELT teachers. It was observed that Lesson Study intervention triggered making critical and valid teaching judgements and led to improvements in participants' adaptability skills. The results further pointed to a moderate level of impact on the participants' creativity, their self-awareness, and establishment of rapport with students.

Keywords: Lesson study, pre-service ELT teachers, professional development, personal development, classroom management

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CHAPTER I

INTRODUCTION

1.1. Introduction

It is a well-known fact that the role and functioning of schools are changing constantly and rapidly which necessarily impose new roles on teachers who have to keep up with the developments in order to better serve for the achievement of learners and respond diverse student needs. This ever-changing educational world entails continuous and changing teacher development which has become a vital component of school improvement efforts all over the world. Although the literature does not portray a consensus on what teacher development field subsumes because of its multifaceted dimension, recent studies emphasize the close relationship between personal and professional selves of teacher (Kasemsap, 2017) which cannot be considered irrelevant of social context.

It has been acknowledged in literature that teaching is no more a profession that is fulfilled in isolation from colleagues (Johnston, 2009) which is described as an “egg box profession” by Freeman (1998, as cited in Johnston, 2009). Lieberman and Miller state that collaboration and collegiality is a vital component of continuous professional development of teachers since they take teacher development beyond personal, idiosyncratic reflection or dependence on more knowledgeable experts to where teachers contribute significantly to their personal and professional development through learning from each other (Liebermann & Miller, 1984, as cited in Hargreaves, 1994). Similarly, Knezevich and Scholl (1997) state that collaboration ensures vital opportunities for teachers that help them to reflect on and understand their personal implicit knowledge (as cited in Roberts, 1998). In this sense, it could be argued that teachers’ professional identities are not only shaped by technical aspects of teaching such as classroom dynamics, classroom management etc. but also their personal theories and experiences as students or teachers and the social and professional environment in which they fulfil their profession as claimed by Day, Kington, Stobart and Sammons (2006).

The research on learning to teach portrays a substantial amount of work presenting that initial teacher education (ITE) programmes provide partial contribution to the professional development of beginning teachers in terms of bridging the gap between theory and practice since learning to teach is multidimensional and complex in nature and

involves the development of technical skills, personal qualities, and ability to reflect on the experience as stated by Calderhead and Shorrock (2005). In this respect, the beginning teachers are left unguarded and unguided in their long, demanding professional journey. Although teacher education programmes provide trainings concerning recent, up to date research findings for the teachers, they do not cause significant changes in their professional development as they are based on transmission of scientific knowledge. They need direct evidence to make personal meanings from the abstract knowledge as suggested by Roberts (1998). As a result, especially beginning teachers cannot transform subject matter knowledge into practical knowledge. In this sense, it has become indispensable for the beginning teachers to create continuous, collaborative and inquiry based professional development opportunities that are practiced in the field which enable to reflect on the experience and test, accommodate or reshape personal theories about teaching. In this way, beginning teachers would be able to construct an established professional identity to become an accomplished teacher.

Lesson Study (LS) is an inquiry-based collaborative professional development model developed in Japan which aims to promote effective professional learning through constant observation of student learning and reflection on the practice. Hart, Alston, and Murata (2011) state that LS shares many characteristics of recent effective professional development models as it is field-based, collaborative, student-learning centred, research-focused and practice oriented. It has become widely recognized among scholars around the world as it would lead a solution to the problem of theory and practice gap in ITE and other teacher training programmes.

Within this perspective, this study intended to investigate the impact of Japanese LS professional development model on Turkish preservice English language teachers' personal and professional development.

1.2. Background to the Study

Language teacher education (LTE) has undergone certain major changes over the past fifty years as a result of research effort in the field and powerful influence of general educational theory (Crandall, 2000). Crandall summarizes the changes under four major headings.

First of all, there has been a shift from traditional, model based, transmission-oriented education to constructivist theories of teacher learning and training. Teachers are not seen

as the passive recipients of scientific knowledge, rather they are regarded as the active constituents of meaning.

Secondly, Crandall claimed that language teacher education programmes fail to prepare prospective teachers to the realities of the multidimensional and unpredictable classroom life because of the decontextualized content. This shift has led to the reinterpretation of teacher education since initial teacher education is claimed to ensure necessary knowledge but it fails to address necessary skills to transfer this knowledge into practice. As a result, teacher education programmes reshaped their design through a focus on situated teacher cognition and practice in order to close the gap between theory and practice.

Crandall further stated that teachers' personal theories about teaching which are believed to be shaped by Lortie's "apprenticeship of observation" (as cited in Roberts, 1998) play an important role in processing initial teacher education input. Roberts (1998) states that ITE programmes do not have a profound impact on the beginning teachers' development because of the stable nature of previous beliefs and assumptions about teaching which prevail over programme interventions. Therefore, many ITE programmes now include practices that raise conscious reflection on the teaching practices.

The last shift has been caused by the appreciation of teaching as a profession which resulted in the continuous professional development through collaborative observation, inquiry based teaching and sustained training programmes rather than short term workshops as suggested by Crandall. This suggests that ITE programmes and in-service trainings are not considered sufficient as interventions to train professional individuals.

In fact, these changes in LTE could have been triggered by shortcomings of ITE programmes in preparing teacher candidates for the realities of the classroom life. The relevant literature presents a substantial amount of work claiming that LTE programmes in Turkey lack enough opportunities for practice teaching and micro teaching that would bridge the gap between theory and practice (Enginarlar 1996; Seferoğlu 2006; Coşkun & Daloğlu, 2010).

As a result, the focus has shifted from teacher training and education to teacher development since it was seen that there is no best method to train teacher candidates for the multidimensional classroom where teacher learning, teacher cognition and beliefs, context and reflection play crucial roles in constructing or reframing personal theories about language and language teaching. Crandall defines teacher development as "a life-long process of growth which may involve collaborative and/or autonomous learning, but

the important distinction is that teachers are engaged in the process and they actively reflect on their practices” (Crandall, 2000, p. 36). The definition clearly portrays that teaching is self-made rather than ready-made and it is a consciously and cognitively driven process of making meaning of experience within a social context. Similarly, Richards (2008) defines teaching as (co)constructing of knowledge and understanding through collaboration and cooperation rather than individual effort to master content knowledge which leads us to sociocultural perspective in language teacher education.

Within this perspective, it is vitally important to provide collaborative, inquiry based, on-site professional development opportunities for teachers for an on-going and lifelong teacher learning. Crandall (1996) similarly informs us that teacher education programmes should provide further collaborative practical experience opportunities for the prospective teachers even after the education programme ends and that would help them engage in critical reflection and develop more informed practice by making implicit knowledge explicit (as cited in Crandall, 2000).

In this respect, LS offers invaluable personal and professional development opportunities for the prospective teachers that are in line with current sociocultural perspective. LS also involves many characteristics of recent professional development programmes as stated by Murata (2011) since it is field based, practice oriented, student learning centred, collaborative, and research focused.

1.3. Statement of the Problem

It has been widely acknowledged in literature that current Pre-service English language teacher education in Turkey does not allow enough opportunities for practical applications of the theoretical knowledge as mentioned before (Enginarlar, 1996, Seferoğlu, 2006, Coşkun & Daloğlu, 2010, Karakaş, 2012, Demir, 2015). Although the restructuring in ITE that was introduced in 2006 by Higher Education Council (YÖK) aimed to train student teachers with necessary subject skills and pedagogic skills that are presumed to help them in their professional journey. Even though the main motive behind the restructuring was training English language teaching (ELT) students according to the criteria of European Higher Education Area by covering the tenets of Constructivist Approach and promoting higher order thinking skills, continuous professional learning and development and reflective teaching, the report prepared by British Council in 2015 (British Council, 2015) presented that novice teachers do not attempt to create an effective

language learning environment despite their good command of English and technologically well-equipped classrooms. The extensive report also acknowledges that the teachers observed were heavily dependent on text materials and the classes were heavily teacher centred with limited student interaction and talking and much mother tongue instruction. Although the report does not state explicitly, it is possible to reach such a conclusion that a theory and practice gap exists in LTE in which the students cannot transfer theoretical knowledge that they are exposed to during pre-service training into practical knowledge where they practice their profession effectively.

In fact, this “theory and practice gap” matter is neither a new issue in language teacher education literature nor specific to Turkish educational context as it is one of the hotly debated issues among researchers for years (Korthagen & Kessels, 2008, Freeman, 2002, Richards, 2008, Cheng, Cheng, & Tang, 2010, Allen, 2009). A great number of studies are available addressing the reasons of theory and practice dichotomy but the number of inquiries providing solutions are quite few. In his well-known book, Lortie (1975) asserts that student teachers filter the input in initial teacher education on the basis of their personal images of teaching. Therefore, what students have learned in those programmes is based on the matter of imitation rather than pedagogic principles and analytic reflection (as cited in Roberts, 1998). Similarly, Kagan (1992, p. 162) in her extensive study, indicated that pre-service programs fail to address what is intended to provide for the student teachers pronouncing “..... university courses fail to provide novices with adequate procedural knowledge of classrooms, adequate knowledge of pupils or the extended practice needed to acquire that knowledge, or a realistic view of teaching in its full classroom/school context”. Zeichner, Tabachnick, and Densmore, (1987) go one-step further and question the impact of those programmes stating that preservice programmes are not very powerful interventions because their influence on the students’ professional development is very limited since prior beliefs and implicit images of teaching hinder programme interventions.

Another important factor that may hinder personal and professional development of student teachers in pre-service teacher education is the lack of professional learning communities. Hargreaves (1994) presents that there are four distinct occupational cultures, namely isolationist, collaborative, contrived collegial and balkanized. Although current existing professional development models call for the progression of collaborative teacher development and professional learning communities drawing on the influential work of Schön (Schön, 1983), isolationist occupational culture still maintains its prestige

which offers privatism, isolation and also protection from the institutional and bureaucratic constraints. Hargreaves proposes two main reasons to describe its prevailing popularity among teachers and in teacher culture: diffidence, defensiveness and anxiety and flaws and failures in teachers because of the uncertainties of their work. As Lortie (1975) suggests, this uncertainty and anxiety lead teachers to depend on “orthodox doctrines” and their own personal experiences when developing their own styles and strategies (as cited in Hargreaves, 1994, p. 184). As a result, instead of focusing on student learning and critically reflecting on their own practices and styles and strategies, student teachers and novices’ main concerns are survival in the classroom and maintaining self-esteem as put forward by Roberts (1998).

Drawing on recent literature in LTE, instead of stocking up students with discrete amount of theoretical knowledge the researchers suggest a number of core principles under the influence of socio cultural turn that should exist in ITE programs such as teacher identity, teacher cognition, collaboration, reflective thought, research based thinking, self-direction and teacher learning which are associated with teachers’ personal experiences in the classroom (Johnson, 2006, Legutke & Schocker-v. Ditfurth, 2009, Richards, 2008). In his article, Richards (2008) underlines the importance of key issues as sociocultural view of teacher learning, a focus on teacher cognition in order to explain teacher practice in the classroom, the role of teacher identity in teacher learning, collaborative teacher development and critical teacher education perspectives in response to the theory and practice gap in second language teacher education today. In order to reconceptualize knowledge base of second language teacher education Freeman and Johnson (1998) argue that as it is impossible to separate theory and practice, teacher educators should focus on the activity of teaching and the teacher beliefs and experiences in the social and institutional context where they occur. They further indicate that knowledge base of second language teacher education should center on the teacher as the learner of teaching. In an article to explain the rationale behind the assumption that school-based experience is an integral part of teacher education Legutke and Schocker-v. Ditfurth, (2009, p. 211) present three principles for designing teacher education programs. They are research approach to student teacher learning, experiential student teacher learning, experimental student teacher learning.

Similarly, Johnson (2009) attracts our attention on teachers’ practical knowledge that they construct through on-going, in depth and reflective examinations of teaching practice and students learning in social and professional networks. She claims that second

language teaching is not simply translating theories into practice but a dialogic process of co-constructing knowledge in participation with other teachers.

In this sense, this study is assumed to fill the theory and practice gap in second language teacher education by providing opportunities for pre-service English language teachers in terms of individual personal and professional development, learning to see children, creating demand for improvement, established collaboration, self-critical reflection and instructional improvement as suggested by Lewis (2000). In addition, the study will allow for further on-site experience for the student teachers so that they reflect on student learning critically leading to changes in their thinking and practical knowledge. Besides, the present study paves the way for greater teacher collaboration as it requires cycles of collaborative planning, critical research lesson (RL) observation, analytic discussion and ongoing reflection.

1.4. Aims of the Study and Research Questions

This study is an adaptation of Japanese professional development model “LS” into preservice language teacher education. In fact, LS is the process of developing RLs (RL)’s for personal, professional and instructional improvement. According to Lewis (2000, pp. 5-6) research lessons are real classroom lessons with students and share five characteristics.

- RLs are observed by other teachers
- RLs are planned collaboratively for a long time
- RLs are designed to bring life in a lesson a particular goal or vision of education
- RLs are recorded
- RLs are discussed.

Lewis (2005) believes that “LS” leads up to improvement in teachers’ thinking and practice in multiple ways as a result of,

- increased knowledge of subject matter,
- increased knowledge of instruction,
- increased ability to observe students,
- stronger collegial networks,

- stronger connection of daily practice to long term goals,
- stronger motivation and sense of efficacy,
- improved quality of available lessons (as cited in Cerbin & Kopp, 2006, p. 254).

This study explores the LS engagement of a group of six pre-service teachers with the participation of an outside observer and the researcher and observes their experiences in many cases during planning and practice stages and discusses the possibility of implementing LS model into preservice ELT teacher education in Turkey.

Within this context, the central purpose of the present study is to investigate and monitor potential impact of LS intervention on the personal and professional development of participating pre-service ELT teachers. In line with this goal, the main aims of the study could be listed as follows:

- to bridge the gap for the participating preservice ELT teachers between theoretical knowledge provided by teacher education programme and field experience by means of LS process,
- to help preservice ELT teachers gain critical perspectives about student learning and build greater awareness about students and their needs with LS framework,
- to increase participants' awareness about the benefits of collaborative teacher learning promoted by LS process
- to observe if LS paved the way for instructional improvement for the participating preservice ELT teachers
- to evaluate if LS could be used as a model for the personal and professional development of preservice ELT teachers.

Therefore, the following research questions and sub-questions guided the inquiry for the present study.

1. Does participation in Lesson Study have an impact on Turkish preservice teachers of English?
2. Does Lesson Study Professional Development Model have an impact on professional development of Turkish preservice teachers of English?

- a. If so, how does each participant perceive the contribution of Lesson Study process to their professional development?
3. Does Lesson Study Professional Development Model have an impact on participants' personal development?
 - a. If so, how does each participant perceive the contribution of Lesson Study process to their personal development?
4. Does Lesson Study Process have an impact on the participants' classroom management skills in terms of
 - a. teacher interventions?
 - b. learner related issues?
 - c. promoting interaction in the classroom?
5. In general, how do participants evaluate overall impact of Lesson Study process to their development?

1.5. Significance of the Study

First and foremost, this study provides a unique professional development model for preservice teachers whose early teaching experience is mainly “sink or swim” because of the lack of peer support as suggested by Lortie (1975, as cited in Roberts, 1998). With this study, it is presumed that preservice teachers will benefit from the collegiality provided by LS experience and gain awareness about the importance of collaboration among teachers who can ensure alternative perspectives concerning teaching and student learning.

Moreover, the study is expected to increase pre-service ELT teachers' awareness of the field experience as the prospective teachers will actively engage in the RLs which they critically plan the lesson, teach through focusing on students, observe the flow of the course and discuss shortcomings, key points and alternatives for the application of second cycle. Garet, Porter, Desimone, Birman, Yoon (2001) suggest that this process fosters active learning associated with successful professional development of practising teachers causing significant positive effects on teachers' knowledge and skills and changes in classroom practices (as cited in Fernandez, 2010).

Additionally, it is assumed that this study will help prospective teachers make sense of theoretical knowledge that they receive during training more efficiently and be able to transfer it into practical knowledge more easily since participating in RL cycles supports

reflecting on and gradually revising approaches to teaching RLs in ways that help them review their beliefs, ideas and conceptions about teaching and learning in light of the practice as presented by Fernandez (2010).

It is also believed that the study will raise awareness about the benefits of working in a collaborative environment for the preservice teachers which will shape /reshape teachers' thinking and beliefs about teaching and pedagogy. In this way, it is presumed that the students will develop the belief that teaching can be improved through collective effort and realize individual teacher autonomy and that privatist teaching culture is a potential danger in front of professional development as stated by Lewis (2000).

According to Hart, Alston, & Murata (2011, p.4) one main outcome of teacher learning in LS process is its being a new way to see teaching as a series of research inquiry around student learning. The strong emphasis on students and students' learning during LS process continually reminds teachers how vital it is to be aware of students' needs and understand their ideas and thus they will develop the vision of ongoing reform into their classrooms. In this sense, it is supposed that the present study will help preservice teachers adopt more student-centred teaching style and behaviour and realize that teaching is an interactive process between teacher and students.

Probably, the most important outcome of LS process is that the prospective teachers gain a critical perspective about their teaching practices as LS encourages a reflective and engaged approach to teaching as cited by Marble (2006). With this study, it is expected that the preservice teachers will develop an inquiry-based approach to teaching since the process requires ongoing and in-depth observation and evaluation of the collective RLs. Thus, they will constantly review their already existing beliefs about teaching and their actual practices in the classroom, gain better understanding of their teaching and make changes in their beliefs and actions on the basis of student learning when necessary.

Finally, the present study is expected to contribute to the literature by providing a unique professional development model for preservice teachers which prepare more confident and motivated teachers who are more student centered, collaborative, research minded and reflective.

1.6. Limitations

This study is an adaptation of Japanese LS Professional Development Model into language teacher education so that certain modifications in the original structure will be

applied in order to fit it into Turkish educational context and respond to the institutional and political constraints. In this sense, the study will not stick entirely to original “LS” format.

Although the study provides large amount of data to analyze, the qualitative nature of the study limits the possibility of reaching generalizable results for the whole target population. In this sense, the study will provide findings for the context of participating preservice teachers.

The study aims to investigate five prospective ELT teachers’ “LS” experiences in a period of one academic year. Further research is needed with larger sampling that observes the process in a longer period in order to obtain more valid and reliable findings.

Because of the nature of “LS”, the researcher involves in the whole process as teacher, advisor, counsellor and observer. Therefore, the presence of the researcher in every step may disrupt the reliability of the collected data and findings.

1.7. Operational Definitions

LS: is a highly developed professional development form consisted of cycles in which a small group of teachers come together, work collaboratively and reflectively on the basis of a research focus based on student learning, plan a RL that makes student learning visible, implement the RL while the observers are monitoring it, discuss the RL on the basis of the observational evidence and use the evidence for planning the following cycles (Lewis 2000; Murata 2011; Lewis & Hurd 2011).

Research Lesson: also labelled as “study lesson” is the core of the LS process which refers to the live classroom lessons with students that teachers jointly plan, observe, reflect on and discuss (Lewis, 2000, p.3)

Personal Development: is also labelled as self-development refers to possessing personal strengths and characteristics that help teachers define and make sense of their teaching practice and of themselves as individuals through developing the necessary life skills that can help them grow in and outside their profession (Djoub, 2018).

Professional Development: is the process of developing the necessary knowledge-base and skills teachers require to perform their teaching role effectively which not only involves learning new theoretical knowledge and suggestions, but also applying them and learning through reflection how to make them more effective within teaching contexts (Djoub, 2018)

Atlas.ti is a powerful software for the qualitative analysis of large bodies of textual, graphical, audio, and video data which offers a variety of tools for accomplishing the tasks associated with any systematic approach to unstructured data that cannot be meaningfully analysed by formal, statistical approaches (Frieze, 2014, p. 10).

1.8. Abbreviations

The abbreviations used in the present study are as follows:

ELT: English Language Teaching

LS: Lesson Study

RL: Research Lesson

LTE: Language Teacher Education

ITE: Initial Teacher Education

YÖK: Higher Education Council

CHAPTER II

REVIEW OF LITERATURE

2.1. Introduction

The purpose of the present study is to reveal the impact of LS intervention on the professional and personal development of participating preservice ELT teachers. Within this perspective, the present chapter reviews the relevant literature under four major headings.

The first section deals with the theoretical perspective that the present study is grounded on. It acknowledges the readers about the significance of sociocultural stance in language teacher education and what it offers for an ongoing personal and professional development.

The second part discusses language teacher education in general and is followed by LTE models, which were shaped by perspectives on learning and teaching, behaviourist, humanist, constructivist and social constructivist respectively.

The third part covers teacher development literature which represents teachers as the learners of teaching who construct their personal images of teaching through continuous introspection and reflection of experience thereby developing their classroom practice. The chapter is organised under two sub-headings, personal growth and professional growth namely.

The fourth part presents LS as a tool for personal and professional development and gives brief information about its history, progress and previous studies conducted using LS as a professional development model in language teaching.

2.2. Theoretical Perspective

The theoretical perspective that LS is grounded on has its roots in Sociocultural Theory which is largely shaped by the studies of Vygotsky. According to Vygotsky (1986), human cognition develops through relationship with others and humans' higher order thinking abilities are seen as the products of mediated activity which is semiotic in nature. The mediators are culturally constructed materials such as signs and symbols and they are the means of interpersonal communication. In other words, cognitive

development is an interactive process mediated by culture, context, and language as stated by Johnson (2009).

Additionally, Sociocultural Theory emphasizes the active role of human agency in the development of cognition. Vygotsky (1986) claims that cognitive development is the result of internalization that is the process of transformation of external actions into internal psychological functions through the use of symbolic, psychological tools and social relations. The process of internalization consists of a series of transformations as in the followings.

- An operation that initially represents an external activity is reconstructed and begins to occur internally.
- An interpersonal process is transformed into an intrapersonal one.
- The transformation of an interpersonal process into an intrapersonal one is the result of a long series of developmental events (Vygotsky, 1978, p. 57)

It is clear that higher mental processes such as concept learning is not passively absorbing information from an external resource but it is a constructive process within an individual that he/she transforms this information and knowledge in a variety of ways to make it compatible with the norms of the society. Johnson (2009) states that “how an individual learns something, what is learned, and how it is used will depend on the sum of the individual’s prior experiences, the sociocultural contexts in which the learning takes place, and what the individual wants, needs, and/or is expected to do with that knowledge” (p. 2).

Particularly, Vygotsky (1978) introduced the concept of “zone of proximal development” (ZPD) in order to draw attention to the social interactions to negotiate meaning in the course of children’s cognitive development. Vygotsky (1978) defines ZPD as “the distance between the actual developmental level as determined by independent problem solving and the level of potential development as determined through problem solving under adult guidance or in collaboration with more capable peers” (p. 86). The concept underlines the significance of cooperation and collaboration among individuals and implies that the individuals learn much better when they work with more capable adults or peers. Vygotsky (1978) further states that learning is stimulated when the learner is in cooperation with people in the environment and collaborates with his/her peers which

awakens a variety of internal cognitive processes for the purpose of internalizing external resources.

Furthermore, Vygotsky (1978) in his work “Thought and Language” makes a distinction between spontaneous concepts and scientific concepts in explaining concept learning during cognitive development of children. Spontaneous concepts occur as a result of direct personal experience and lack systematicity, consciousness and reflection. However, scientific concepts are the result of systematic instruction as in the formal schooling and they possess generality, systematic organization, conscious awareness and voluntary control (Wells, 1994). According to Vygotsky (1978) scientific concepts underlie higher mental capabilities because when they are acquired, they lead critical thinking and problem solving. Although both learning have distinctive features, they are interrelated as spontaneous concepts and pave the way for scientific concepts while scientific concepts are dependent on spontaneous concepts for concreteness.

Within this perspective, Sociocultural Theory has much potential that explain the sources, mechanisms, nature and consequences of teachers’ professional development at all stages of their professional journey regardless of their cultural context as stated by Johnson and Golombek (2011).

First of all, novice teachers start their professional journey with personal images of teaching built from their personal experiences called as “apprenticeship of observation” (Lortie, 1975) which are unstable, uncontrolled and unsystematic (as cited in Roberts, 1998). Although personal image of teaching which could be labelled as “spontaneous concepts” which are drawn from direct everyday practical experience as learners help novice teachers somehow to survive in the classroom, they are superficial and unstructured as they are dependent on personal experience. Meanwhile, language teacher education programmes provide “scientific concepts” based on recent research but they lack practical experience which is labelled as theory practice gap in literature. In this respect, sociocultural perspective introduces a direct implication for professional development of language teachers by putting forward interdependent relationship between spontaneous personal experience and scientific knowledge which could be interpreted as teachers should bridge their daily experiences with the theoretical knowledge so as to escape from the limitations of unstructured daily experiences in order to perform successfully in a wide range of alternative circumstances and contexts (Johnson & Golombek, 2011). Within this perspective, LS has a potential in terms of making sense of daily classroom experience through careful observation of RLs and

applying scientific knowledge during post lesson discussions among the participants and thus helping them connecting scientific knowledge with concrete practice.

Also, sociocultural lens in language teacher education suggests that teacher beliefs and cognition are obviously shaped by engagement in social practices in the classroom with the other teachers which underlines the social dimension of teacher learning in their professional development. In other words, teaching is a dialogic mediation as stated by Johnson (2009). Johnson characterizes instruction from a socio-cultural perspective as:

a long-term, cyclical process of dialogic mediation in which learners' everyday (spontaneous and non-spontaneous) concepts (actual developmental level) are made explicit and reflected upon, and scientific concepts are introduced, experimented with, and used in various meaningful and purposeful activities (potential developmental level), with the ultimate goal of advancing learners' cognitive abilities so that they can accomplish goals or solve problems on their own (cognitive development) (Johnson, 2009, p. 63).

This could be interpreted as LTE should enable opportunities for dialogic interaction among teachers whereby they apply theoretical knowledge through reflecting upon their own classroom experiences in order to structure conceptions about teaching. In this respect LS offers invaluable experience for teachers as it brings teachers together to share goals, discuss ideas and work collaboratively by integrating theoretical and practical knowledge in different LS cycles for the purpose of contributing to student learning and improving instruction (Murata, 2011).

Sociocultural perspective implies that teacher learning is not solely transmission of knowledge and that the teacher is a passive recipient as presented in the traditional language teacher education models. Rather, teacher learning involves reorganizing and restructuring of knowledge and it is through these processes that spontaneous knowledge is transformed into scientific knowledge and it is internalized, as stated by Richards and Farrell (2005). This process is referred as "internalization" by Vygotsky (1978). According to Leonitev (1981) this process is not straightforward and it is not the transferal of an external activity to the pre-existing schema or replacement of skills; it is the process in which the concept is formed (as cited in Johnson, 2009). This means that human agency plays an active role in creating meaning and new understanding. In this sense, LS helps both experienced and inexperienced teachers to learn and internalize expert knowledge because of its cyclical nature in which the teachers jointly plan, observe and analyse RLs

over and over. This process forces teachers to be more conscious of their self, their practice and student learning that they wouldn't normally be either because they would filter them out or they would be dealt with through their implicit knowledge system as expressed by Dudley (2011).

Additionally, Vygotskyian concept of “zone of proximal development” that is defined as the difference what a person can do individually alone and what a person can manage by working in collaboration with others or more capable peers (Vygotsky, 1978) has many implications for LTE. As discussed before, collaboration and dialogic interaction among individuals trigger internalizing spontaneous external classroom experience that would lead to conceptual development. Within this perspective, LTE should allow for opportunities that the teachers work in collaboration with each other since collaboration among teachers fosters professional development by making tacit implicit knowledge explicit because of the dialogic talk among teachers. Frykholm (1998) states that expert knowledge about teaching is socially constructed and preservice language teachers bridge the gap between theory and practice through collaborative efforts (as cited in Johnson, 2009). The distinctive feature of LS experience is the collaborative efforts of teachers to reach an overarching goal. During the process, the teachers are scaffolded by a more experienced professional and an outside expert in order to reflect upon classroom experience and make meaning. In LS, knowledge is built from interactions between teachers and it is this interplay between personal and social meaning growing out of direct experience that creates scientific knowledge that is dynamic in nature (Olson, White, & Sparrow, 2011).

All things considered, LS intervention has a lot in common with the tenets of Sociocultural Theory and it represents the tenets of effective contemporary professional development programs such as action research, classrooms research or teacher research since LS is collaborative, field based, research oriented, student learning centred and practice focused (Murata, 2011).

2.3. Language Teacher Education

LTE has undergone a substantial change throughout history in terms of its nature and content because of the internally initiated change through the efforts of applied linguists and specialists and external pressures which triggered by national educational authorities to have greater centralised control over teaching and teacher education because of the

globalization (Richards, 2008). The field has now become quite away from perspectives explained with theoretical and technical terms as in the traditional language teacher education models and it has been reconceptualized establishing research-based lenses in LTE in which teachers' implicit beliefs, cognition and personal theories about teaching have gained further importance. Richards and Nunan (1990) suggested that we are moving from an approach describing prospective teachers with skills and techniques to a perspective whereby beginning teachers develop their own theories concerning teaching and become more conscious of their own learning-to-teach processes (as cited in Rondon, 2002).

It is necessary to make a distinction between teacher knowledge and teacher learning to talk about the history of LTE as little attention has been paid to the concept of teacher learning until very recently. Dominant paradigms and approaches at the time concerned only with subject matter knowledge and how to transfer that knowledge to the minds of the beginning teachers and learning how to teach was not taken into consideration (Freeman, 2001). This gap known as theory-practice gap which were interpreted as independent concepts from each other occupied the minds of researchers, linguists and scientist and built the base of conflicts about how to educate language teachers.

Although the researchers presented different terminologies in explaining shifting frames in the history of LTE (Wallace, 1991; Freeman, 2002; Day 1991) they found a middle ground by dividing the time frame into four; the period until the end of 1970's, 1980-1990's and 1990's-2000's and 2000's-today.

Perhaps the most detailed work presenting an overview of theories of teacher learning and a discussion on the fundamental issues and foundations in language teacher education was written by Roberts (1998). Roberts (1998) outlines four perspectives on human learning and associate them with language teacher education as follows (p. 13).

- Person as input-output system
- Person with self-agency
- Person as constructivist
- Person as social being

Each model describes learning on the basis of the parent theory behind and offers content and process consistent with language teacher education.

2.3.1. Person as Input-Output System: Model-Based Learning

The parent approach behind this model is Behaviourism, the main offshoot of positivist school, which describes human learning as observable behaviours growing out of imitation, practice and reinforcement. In this approach, complex behaviours are broken into discrete sub-behaviours which could be taught step by step (Roberts, 1998). ITE based on the principles of Behaviourism defines teacher competence as mastery of target teaching skills through practice and modelling. Roberts (1998) classifies teacher education models informed by Behaviourist principles as follows:

- Classical Micro Teaching,
- Competency Based Teacher Education,
- Craft/Apprenticeship Model.

2.3.1.1. Classical Micro Teaching

It was introduced in 1963 by Stanford University as part of an experimental programme which aimed to enhance teacher candidates' teaching skills through demonstration lessons under controlled conditions. In this programme, the complex act of teaching was broken down into discrete manageable skills and it was assumed that the teacher could acquire the necessary teaching skills through step by step learning in real teaching situations by means of observation, imitation, practice and reinforcement (Roberts, 1998; Cooper & Allen, 1970). Within this perspective, a repertoire of teaching skills that were applicable to elementary and secondary education across different branches such as fluency in asking questions, reinforcement, cueing was developed in order to use for teacher education through micro teaching. The skills were identified through careful observation of teachers in the classroom. When those skills were determined, their behavioural components were isolated and the teachers were trained through those behavioural competencies until they reached the target skill (Cooper & Allen, 1970).

2.3.1.2. Competency Based Teacher Education

The proponents of competency-based teacher education define teaching competency as an observable behavioural skills that can be empirically observed and described as stated by Hilbert (1982). In this sense, competencies were defined as “discrete behavioral

routines that can be unambiguously identified, specified, and taught by prescription to prospective teachers” (Joyce, 1974 as cited in Hilbert, 1982, p. 380). The prospective teachers were presented with the competencies that were determined through trial and test of scientific procedures before the instruction and they were expected to demonstrate behaviours leading to student learning. The success of the teacher was based on the product that is the specified behavioural indicators which is also known as target competency. Semmel & Semmel, (1976) lists the features of Competency Based Teacher Education as follows:

- Publicly Stated Programme Objectives,
- Criterion Referenced Evaluation of Trainee Performance,
- Modularized Instruction,
- Inter-institutional Consortium for Teacher Education.

The model was criticized because of the unambiguous nature of competencies, their overwhelming number; their context bound structure and prescriptions for target teaching behaviour.

2.3.1.3. Craft/Apprenticeship Model

Craft approach to professional education which is also known as apprenticeship-expert model (Day, 1991) sees teaching as the development of craft knowledge and teachers as the craftsperson. Teacher education is considered as a process of apprenticeship (Zeichner, 1983) in which the trainee imitates the expert by observing his activities in the classroom and following his/her instructions and advices. In that way, it is assumed that the trainee develops professional competence and become a master. Knowledge about teaching is developed through trial and error process while the apprentice is imitating the craftsman, the teacher. Prospective teachers are seen as the passive recipients of the knowledge and have almost no role in defining and shaping the content of the preparation programmes as in the previous models as stated by Zeichner (1983). What makes craft model different from competency-based language teacher education is that the objectives are not structured as precise explicit competencies. Rather they were implicit and represented by the craft knowledge of the expert teacher (Roberts, 1998).

Although, the model was heavily criticised as it ignores implicit beliefs and personal theories of prospective teachers and fails to develop professional development, it is still widely used today especially in conservative static societies where people value seniority and tradition as suggested by Roberts (1998).

2.3.1.4. Criticisms of Model Based Teacher Education

Roberts (1998, pp. 16-17) lists the criticism of imitation as a learning process in LTE as follows:

- training to demonstrate behaviours fails to address the correct use of these behaviours,
- exposure to a single model of teaching contradicts with the notion that there is no best way to teach and prevents exposure to alternative teaching,
- imitation of behaviours prevents the development of planning and self-evaluation skills,
- model based teacher training individual differences among trainees in terms of beliefs and theories and experiences,
- the craft knowledge of the master teacher may stay out of date,
- model based training is inflexible as it does not leave space for personal and professional development,
- model based teacher education does not take cultural differences into account and the obtained skills may not be transferred to culturally different settings.

2.3.2. Person with Self Agency

The main approach underlying person with self-agency intervention is Humanism which is represented in the works of Carl Rodgers. It was born as a reaction to model based LTE which is considered as deterministic and one-dimensional (Roberts, 1998). The core feature of the model is that it avoids from prescription and underlines the significance of individuals' thoughts, feelings and emotions. Williams and Burden (1997) summarizes the educational implications of Humanism as follows (p. 36):

- learning should be personalised as much as possible in order to help learners develop a sense of personal identity,

- learners should be given opportunities to make choices about what to learn and how to learn in order to become self-actualizing people,
- teachers should respect each learners' sense of the world, their beliefs and personal theories and should get to know them instead of imposing their own view-points.

Humanistic approach had a tremendous impact in language education methodology and LTE during the 1960's and nondirective intervention which also known as personalistic teacher education (Zeichner, 1983) subsumes the tenets of Humanism in its applications.

2.3.2.1. Nondirective Intervention

According to this model, teacher education is considered as the development of self that is internally determined rather than externally controlled (Roberts, 1998). The teacher's personal development constitutes the objective of LTE. Prospective teachers are not prescribed any skills or competencies that they have to master in advance. Rather, they are expected to find their own ways, discover their inner resources and potentials to become an expert. Freeman (1982) states that nondirective intervention is a process of reflection and self-actualization in which the prospective teachers' inner world is taken as a starting point. The trainer's role is to help teacher candidates to trigger and facilitate this process by constructive comments, questions and advices which reveal their inner world in order to enable personal meaning for teaching.

It is important to note that non-directive intervention draws further attention to the importance of personal interaction among prospective teacher and trainer who plays an indispensable role as advisor or counsellor and avoids asking critical questions and judgmental interpretations.

Roberts (1998) lists the views in teacher education that are comparable with nondirective intervention as follows (p. 20):

- recognition of the teachers' personal autonomy,
- adaptation of counselling models to intervention with experienced teachers,
- collaborative relationship between supervisors and prospective teachers,
- the notion of ITE as process of self-realization

- recognition of emotional dimensions of prospective teachers.

However, criticism against non-directive intervention was not delayed. First of all, prospective teachers' personal theories and inner resources are not enough to follow as a guide during the professional journey as teacher candidates may face with gaps between knowledge and experience which could be bridged with professional help (Roberts, 1998). It is also important to note that prospective teachers may feel helpless and anxious because of the lack of professional support. This model could work well at the hands of a professional teacher trainer who could bring deeper thoughts and feelings of the teacher candidates to surface. In this sense, the trainers must be equipped well with necessary skills and knowledge. Last of all, it is impossible to think of a teacher identity and self abstracted from the society since teachers' beliefs and personal theories are shaped by the norms of the society.

2.3.3. Person as Constructivist

Constructivism has emerged as a learning theory and had a tremendous impact on learning and teaching over the past 25 years. The paradigm shifted the focus of attention from teacher centred knowledge transmission models of teaching to student centred models that underline the importance of information processing in learning process. The essential principle of constructivism is that knowledge is not passively received but actively constructed in a subjective manner (Glaserfeld, 1989).

Constructivism is rooted in the works of Jean Piaget concerning developmental theory which focus on the active role of individuals in making meaning and making sense of the world. Piaget describes knowledge construction and development as a process of enabling equilibration in the cognition. In order to enable equilibration, the individuals act between two polar which are referred as assimilation and accommodation. Learning occurs as an act of moving between accommodation and assimilation for the purpose of obtaining balance and it is used throughout life. Assimilation is the process of taking in new information to your pre-existing schema which is defined as the mental representation of the world and experience. Accommodation is the mechanism that the individuals modify or change already existing schemas. Roberts (1998, p. 23) orders learning cycles in a constructivist perspective as follows. First, the learner filters new information on the basis of his/her pre-existing schema. Then, he/she constructs the

meaning of the filtered input. During cognitive processing this meaning is matched with prior schemas. Matching conforms or disconfirms existing representations. If there is a match, the constructed meaning is assimilated. If there is a mismatch, already existing schemas are accommodated in order to incorporate new information.

In this respect, our mental representations of the world, prior experiences, and personal theories mediate subsequent learnings. In other words, when the individuals come across with new piece of information, they interpret it from their own perspectives.

The pedagogical implications of Constructivism could be listed as in the followings (Richardson, 1997):

- learning is a developmental process
- the learners actively engage in this developmental process,
- each learner has a distinctive schema that were shaped by prior beliefs and experiences,
- learning is idiosyncratic,
- learning is adaptive.

2.3.3.1. Constructivism and Language Teacher Education

The constructivist perspective has reshaped LTE by changing the perspectives that considered language teacher education as knowledge transmission to knowledge construction in which prospective teachers construct their own theories about language learning and teaching filtering through their prior beliefs and reflecting on personal practical experiences (Tharp and Gallimore, 1988 as cited in Freeman, 2001). Kaufman (1996) states that Constructivist LTE enhances research-based thinking, increases collaboration, enables reflection and provides opportunities for self-observation.

Constructivist perspective has led to the reinterpretation of classical micro teaching which was under the influence of Behaviourist principles. Teaching is not seen as the mastery of skills and competencies gained through imitation of an expert but it was considered as the conceptual development obtained by personal experience. Griffiths (1977) lists the inferences of constructivism in the reinterpretation of microteaching as follows:

- Before entering microteaching programmes, each student has distinctive, complex conceptual schemata relating to teaching.
- There are large individual differences in these conceptual schemata, but large areas of commonality may also exist through the embedding of these schemata within the ideologies of teaching subjects.
- The conceptual schemata show a high degree of stability, but gradual change can occur through the acquisition of new constructs and principles from instruction and experience.
- Students' conceptual schemata to a large extent control their teaching behaviour, and changes in teaching behaviour result from changes in schemata (Griffits, 1977, p. 194).

Roberts (1998) summarizes the implications of Constructivism and person as constructivist model in teacher education as in the followings:

- The model anticipates language teachers' diverse expectations of and responses to the ITE.
- The model accepts that one has to work from the personal theories which each student brings to a course.
- The model justifies space in the curriculum to develop self-awareness and also to explore each student's interpretations of input and their own classroom experiences.
- Student teachers' thinking is likely to be influenced by knowledge of learners' perspectives.
- The model suggests that novice teachers may benefit from sharing the thinking of effective teachers to enrich their own thinking (Roberts, 1998, p. 26).

Within this perspective, Constructivist pedagogy suggests that prospective teachers do not absorb readymade, pre-packed kit containing knowledge about teaching provided by outsiders but they filter them out through their cognition in order to fit into their schemata in order to make meaning of them. Additionally, learning differs for individuals so that each teacher candidate constructs his or her own knowledge.

There are two important figures, Kelly and Kolb, whose works have been highly influential for language teacher education as they are consistent with the tenets of Constructive pedagogy.

Kelly and his personal construct theory suggest that each individual has a personal unique repertoire of construct systems made up of two opposite concepts and people make sense of experience and world on the basis of that system. In other words, people experience the world around them behind the lenses of personally constructed beliefs and ideas. That system is evolutionary in nature as it is under revision and reformulation with new experiences and that's why it is coined as constructive alternativism. Individuals constantly consider alternative constructs when they are faced with new experiences and it is their choices to choose an alternative among them.

Pope (1993) lists the implications of personal construct theory for teacher education as follows (as cited in Roberts, 1998, p. 30):

- individuals vary in their perception of the world;
- an individual's conception of the world has integrity for that individual,
- teachers apply their personal pre-existing theories to explain and plan their teaching,
- teachers test these theories for professional development and modify them if necessary.

These assumptions suggest that professional development of teachers is dependent on reflection on daily classroom experience and inquiring into them by applying personal constructs to make meaning.

The other important figure Kolb and his experiential learning theory that is based on constructivist principles also had a significant impact on language teacher education. According to Kolb (1984), learning could be defined as the process that the knowledge is constructed through transformation of experience. There are four main assumptions of this definition concerning learning process and Kolb lists them as follows:

- learning is the process of human adaptation as opposed to behavioural outcomes,
- knowledge is a transformation process being continuously created and recreated, not an independent entity to be acquired or transmitted,

- learning transforms experience both in both its objective and subjective forms,
- learning is the process of creating knowledge and to understand learning we must understand the nature of knowledge (Kolb, 1984, p. 38).

Kolb defines experiential learning as a cyclical process and consisted of four stages which are concrete experience, reflective observation, abstract conceptualization and active experimentation namely. The cycle begins with direct concrete experience with the world around. Later on, the individual reflects on the experience which leads to analysis and, as a result, modification of existing concepts or construction of new concepts. These concepts are later used as a filter to test new hypotheses built from the new experiences.

Experiential learning has several implications for teacher education. Roberts lists them as follows:

- direct personal experience is essential for conceptual development
- reflection on this experience is essential to conceptual development,
- there is value in access to abstract theory to explain cases and to provide terms with which to analyse experience,
- there is no need to see either experience or abstraction as prior, so long as they are available to learner,
- the experiential learning cycle can be entered at any point so long as it is ongoing (Roberts, 1998, pp.33-34)

Pedagogical assumptions of Constructivism, theoretical implications of Kelly and Kolb's influential works and relevant studies in language teacher education, justified the importance of practitioner' knowledge which originates from teachers' concrete experience, analysis and reflection and, as a result, reflective model sparkled as an intervention for language teacher education.

2.3.3.2. Reflective Model

Reflective teaching has become a prevailing paradigm in LTE for the last twenty years. It was born as a reaction to traditional LTE models that is prescriptive in nature as mentioned before. The definition of reflective teaching is quite troublesome as it is broad

in scope and is used in connotation with variety of interventions such as action research, teacher inquiry, classroom research etc.

Perhaps the most widely accepted definition was put forward by Richards. Richards (1998) acknowledges that reflective approach engages prospective teachers in developing their personal theories of teaching, systematically examining their own decision-making process and teaching practices and developing critical thinking skills leading to self-awareness, change and professional development (as cited in Velez-Rendon, 2002).

Reflective teacher education has been considered as the solution to the problem of theory and practice gap in language teacher education. Wallace (1991) contends that reflective model bridges the gap between received knowledge and experiential knowledge as it enables constant process of reflection on received and experiential knowledge in the context of professional action and this process leads to professional development of teachers.

Williams (1994) offers eight principles for an effective teacher training course based on reflective model. According to Williams, teacher training courses informed by reflective principles should be developmental, culture sensitive and non-prescriptive. The process should promote reflection on experience and theorizing from it by focusing on processing of information. Also, the prospective teachers' experiences should be valued and there must be a dialog between teacher and the trainee such as negotiation of the course content (Williams, 1994, pp. 221-222).

Similarly, Calderhead and Gates (1995, p. 2) list the aims of teacher education programmes based on the principles reflective practice as follows:

- to enable teachers to analyse, discuss, evaluate and change their own practice, adopting an analytical approach towards teaching;
- to foster teachers' appreciation of the social and political contexts in which they work, helping teachers to recognize that teaching is socially and politically situated and that the teacher's task involves an appreciation and analysis of that context;
- to enable teachers to appraise the moral and ethical issues implicit in classroom practices, including the critical examination of their own beliefs about good teaching;

- to encourage teachers to take greater responsibility for their own professional growth and to acquire some degree of professional autonomy;
- to facilitate teachers' development of their own theories of educational practice, understanding and developing a principled basis for their own classroom work;
- to empower teachers so that they may better influence future directions in education and take a more active role in educational decision-making.

Although authors such as Wallace, Williams and Calderhead offer reflective model as a tool for training foreign language teachers, there are several proposals to use reflective practice as strategies for an ongoing professional development such as teaching journals, classroom-based inquiry, action research, teacher as researcher, ethnography and survey and questionnaires.

In spite of its popularity because of its renovating assumptions in teacher education, there have been some criticisms against reflective model. Sze (1999) collects those criticisms under two main headings that are the need for conceptual clarity and the need for empirical evidence namely. Concerning the need for conceptual clarity Sze (1999) emphasizes the inflated use of the term "reflection" not just in educational field only but in any fields. In this sense, there is no consensus on what reflection actually is among researchers and scientists and this causes misunderstandings and vagueness about reflective teaching. Concerning the need for empirical evidence, Sze (1999) states that to establish reflective practice as a reliable intervention, it is necessary to support it with relevant research evidence as there are still many questions about it that are waiting to be answered. Although the literature provides wide array of research about reflective education, most of them are written by researchers and teacher trainers and the studies written by the real agents are scarce. Perhaps the most serious criticism was asserted by Gore (1987) who stated that the claimed benefits of reflective practice were not the evidences of conducted research but rather cautious statements about the opportunities that reflective practice might enable. She further claims that reflective practice would become positivistic, technocratic and artificial approach to teacher education unless certain modifications were made in its nature.

2.3.4. Person as Social Being

This model, drawing on Vygotskian theory as mentioned before, considers LTE from sociocultural perspective and suggests learning to teach is an on-going and active process and happens as a result of individuals' social interaction with others. According to this model, teacher education enables support for professional identity in a social setting through social interaction. It was born as a reaction to the assumption of individualist teacher learning asserted by constructivism which sees learning as a private journey (Roberts, 1998). Proponents of social constructivism present similar assumptions with constructivist pedagogy but they emphasize the importance of social context since human learning cannot be isolated from the society in which it is built from. Johnson (2006, p. 239) defines teacher learning from a sociocultural perspective as follows:

L2 teacher learning as normative and lifelong, as emerging out of and through experiences in social contexts: as learners in classrooms and schools, as participants in professional teacher education programs, and later as teachers in settings where they work. It described L2 teacher learning as socially negotiated and contingent on knowledge of self, subject matter, curricula, and setting. It shows L2 teachers as users and creators of legitimate forms of knowledge who make decisions about how best to teach their L2 students within complex socially, culturally, and historically situated contexts.

Bell and Gilbert (1996) state that learning in teacher development from a sociocultural perspective includes the following assumptions:

- Knowledge is constructed by individuals.
- The construction and reconstruction of knowledge is both personal and social.
- Personal construction of knowledge is socially mediated. Social construction of knowledge is personally mediated.
- Socially constructed knowledge is both the context for and the outcome of human social interaction. The social context is an integral part of the learning activity.
- Social interaction with others is a part of personal and social construction and reconstruction of knowledge (Bell & Gilbert, 1996, pp 50-51).

The literature provides a number of definitions about teacher learning from sociocultural perspectives and they all emphasize that teacher cognition develops as a

result of interaction between personal self and social self. In this complex process, teachers apply their already pre-constructed beliefs and theories constantly and they shape/ reshape them on the basis of reflection on experiences which happen in a socially context bound setting.

Social constructivism has shifted the attention from positivist tradition towards interpretative approaches in LTE. In line with this paradigm, teacher education research has sought out the reasons behind teachers' practical decisions and how those decisions are shaped by the social context in which teachers carry out their professions. In this respect, most of the research studies about LTE concentrated on teacher beliefs, teacher cognition, teacher identity and teacher learning that are heavily dependent on the society and societal norms. The researchers investigated the active role of teachers in their personal and professional development that are shaped by interaction in a community of practitioners. Johnson (2009, pp. 3-6) presents the implications of social constructivism to language teacher education under five main changing points of view. First of all, sociocultural perspective has changed how we think about teacher learning. Johnson (2009) considers teacher learning as a product of inherent cognitive and social that are interconnected and is constructed actively by the teachers within the settings and circumstances of their work. Secondly, sociocultural perspective has changed the way we think about language. Johnson states that language teachers need to be aware of underlying concepts that are embedded how language is used to express meaning (Johnson, 2009, p. 47) because language is used both as a psychological tool and cultural tool to make sense of experiences and to share those experiences with others, thus transforming experiences into cultural knowledge. Moreover, sociocultural theory has changed the way we think about language teaching. Teaching has been seen as a cyclical process of dialogic mediation which involves the active discoveries of learners to make sense of daily experience by making them explicit through constant reflection and application of theoretical knowledge. The process includes testing and active experimentation in a variety of activities as well as the assistance of an expert or collaborator if necessary. Also, sociocultural approach has changed the way we think about broader social, cultural and historical macro structures since these macro structures are quite influential in shaping teachers' beliefs and practices in the classroom. Johnson (2009) exemplifies their impact on teacher development with educational reforms and high-stake tests in order to focus attention that learning and development are socially situated and context bound. Lastly, sociocultural view changes the way we think about

what constitutes professional development. As a result, alternative professional development models which are inquiry oriented, collaborative, self-directed and relevant to teachers' personal experiences were born.

2.4. Teacher Development

Teacher development has emerged as a remarkable field of study among researchers in recent years. There have been many studies on teacher development, personal and professional selves of teachers, but there is a contradiction in terminology and in conceptual clarity as stated by Evans (2002) since the concept is still relatively new. Evans (2002, p. 124) explains this conceptual vagueness as follows:

The extent to which the concept of teacher development is scrutinised in the literature varies. In some cases, conceptual analysis takes the form of presentation and examination of explicit interpretations, or descriptions, of teacher development. In other cases, interpretations are implicit in the arguments and discussions presented. There are also many cases where no interpretations are offered or implied.

Perhaps, the most concise definition was suggested by Bell and Gilbert (1996) who interpret teacher development with social constructivist perspective as a form of human development involving personal, social and professional development. They described teacher development as;

teachers learning, rather than as others getting teachers to change. In learning, the teachers were developing their personally and socially constructed beliefs and ideas about teaching and about what it means to be a teacher, developing their classroom practice and attending to their feelings associated with changing. Another aspect of the teacher development was learning about professional development and change processes, and how they themselves learn. Metacognition was thus a part of the teacher development process, as was reconceptualising what teacher development is (Bell and Gilbert, 1996, p. 33).

The definition clearly suggests that teacher development is intentional and self-directed process in which the teachers develop theories about teaching in an interaction with others, test them and construct new images of teaching which could be labelled as behavioural change.

Bell and Gilbert (1996) identified three types of teacher development that are interrelated as mentioned before. Personal development implies teachers' will to conform or disregard to the socially constructed norms of being a teacher and feelings associated with that process. Professional development refers to the changes in the teaching practices on the basis of development of beliefs and conceptions underlying these teaching activities. Social development involves construction or reconstruction and negotiation or negotiation of what teaching is that is dependent on social interaction with teachers.

Reviewing the relevant studies in the field of teacher development, Evans (2002, p. 130) conceptualizes teacher development as a subjective or objective process which may be on-going, which may have occurred and is completed. Evans states that the process could be subjective as it could be self-initiated internalisation process or objective as it may be an externally applied process. Completion refers to teachers' own judgement that they have developed in some way. She further claims that teacher development consists of two elements, which are attitudinal development and functional development. Attitudinal development refers to the development concerning intellectual and motivational change. Intellectual development is related to become more reflective and analytic in teaching practices. Motivational development is being more motivated to work as a teacher. With respect to functional development, Evans mentions about two dimensions of change: procedural and productive. They refer to the development concerning the procedures the teachers practice and the emerging production at work.

In the light of the studies afore mentioned and relevant studies in the field, it could be argued that teacher development concept has the following features:

- it is an ongoing, longitudinal process,
- it implements some form of change,
- it involves individual cognitive processing,
- it triggers critical thinking and reflection,
- it has social dimension,
- it is context-bound.

Although there is a terminology confusion about the concept of teacher development and vagueness about the scope of the field, the present study will elaborate on the teacher

development under two main headings; personal development and professional development.

2.4.1. Personal Development of Teachers

Personal development as a term has been used interchangeably with professional development in several studies because of the close and interdependent relationship between personal and professional growth of teachers. The literature portrays an extended body of research concerning professional growth of teachers but the emphasis on personal development exclusively is almost nonexistent.

Bell and Gilbert (1996) in their extensive work on teacher development conceptualizes personal development of teachers as follows (p. 15).

Personal development as part of teacher development involves each individual teacher constructing, evaluating and accepting or rejecting for himself or herself the new socially constructed knowledge about what it means to be a teacher and managing the feelings associated with changing their activities and beliefs about teaching, particularly when they contradict with the current or proposed socially constructed and accepted knowledge.

Richards and Farrell (2005) consider that professional development directed towards both institutional development and teachers' own personal development. They identify a number of professional development areas in terms of teachers' personal development. They are:

- Subject matter knowledge.
- Pedagogical expertise.
- Self-awareness.
- Understanding of learners.
- Understanding of curriculum and materials.
- Career advancement (Richards & Farrell, 2005, pp. 9-10).

Bell and Gilbert (1996) mention three types of personal development on the basis of a teacher development model emerged as part of a research which are called as initial personal development, the second personal development and the third personal

development. They observed that, in the initial personal development stage, the teachers were aware that there was something wrong with their teaching practice which caused a professional dissatisfaction and concerns. In this sense, they saw intervention as an opportunity to overcome problems and dissatisfaction and thus leading to self-growth on the basis of their reports. In the second personal development stage, the development continued since the observed teachers had to deal with restraints because the intervention caused certain beliefs and theories about teaching to change and the teachers felt that they had to behave differently in the classroom. As a result, the teachers developed concerns such as fear of losing control, amount of teacher control, covering the curriculum, feeling insecure about subject matter knowledge, meeting assessment requirements, relationship with students and appraisal issues. In the last personal development stage towards the end of the programme, the concerns of the teachers diminished and the teachers reported that they felt much more empowered to be responsible for their development because of the mutual trust developed.

The study implies that personal development of teachers is more related to the feelings and concerns of the teachers about their deficiencies in teaching and their self-initiated effort to overcome those barriers. It could also be argued that there is an implicit, personal cognitive process during the personal development of teachers in which the teachers test their personal theories about teaching and reconstruct them if necessary. Moreover, it could be claimed that personal development leads to self-sufficiency and self-satisfaction as a teacher.

As mentioned before, personal development of teachers is associated with the emotional dimension of professional growth that is generally ignored by most of the teacher training programmes. Within this perspective, Malm (2009) states that little attention has been paid to the personal development of teachers and teacher training and education programmes have to direct their attention more to the personal process involved as it is the vital component of professional development.

Of the limited number studies conducted, Tang and Choi, (2004) observed the development of four preservice student teachers' professional learning experiences in an international field experience programme situated in the language and cultural immersion component of a Primary Education Programme in Hong Kong. After the intervention, they concluded that the participants experienced personal development in terms of self-efficacy, will power, increased confidence and stronger sense of self by working with others in collaboration.

Day (1999) in his work on teacher development reported the results of an 18-month research and development project conducted with the participation of 200 teachers from 20 schools. The project was collaborative in nature as it was born as a result of school university cooperation. The participants were grouped in teams consisted of eight head teachers and teachers, two higher education representatives and one independent consultant. Day (1999, pp. 110-111) lists the impact of the project on the personal development of participating teachers as follows:

- growth in self-confidence and self-esteem;
- raising awareness of the complexities of school management;
- awareness about their contributions to whole school development;
- identification of more clearly professional and career development needs;
- participation actively in the growth and development of collaborative school cultures, thereby increasing their involvement in and commitment to the visions and goals of the school;
- development of critical professional friendships with particular colleagues in school in extending forms of self-review and reflective practice;
- contribution to a greater interaction between whole school and individual review and development planning;
- establishment of personal development planning networks.

Although the literature presents vague definitions about personal development and the researchers use personal and professional development as terms inextricably, Waters (1999, p. 173) offers an interesting definition for personal development. He defines personal development as “change of self, by self, for self”. Change of self implies that it is a personal process, by self indicates that the process is self-initiated and for self represents that the individual is the person benefiting from the process. Waters (1999) lists four major stages of personal development process which are recognition, reconnection, realization and acquisition respectively. Recognition is the self-discovery and revelation process which results in increase in self-awareness. Reconnection is the process of connecting various parts of ourselves such as integrating mind and heart to give more confident decisions. Realization is the process of unveiling our inner resources which is also known as self-actualization. Acquisition is the process of adding new skills

and more empowering beliefs to our schmeta and use them when necessary and thus expand our personal growth. Within this perspective, personal development is more related to the development as a whole person while professional development is connotated with occupational role and is about the enhancing technical knowledge and skills according to Waters (1999).

In the light of the previous research, personal development in the present study refers to internal, personal and voluntary socio-emotional and affective growth of teachers that influences teaching behaviour to a great extent.

2.4.2. Professional Development of Teachers

Professional development of teachers is an ongoing, sophisticated multi-faceted process involving cognitive, affective and social mechanisms which develop teachers' skills, knowledge and expertise. Today, high-quality professional development programmes for teachers are at the core of many educational reform practices and endeavours since it has been widely acknowledged that traditional ITE programmes or in-service teacher education programmes are not enough to train high quality teachers who can respond to rapidly changing educational world. These knowledge transmission based, short term teacher education programmes organized at certain intervals have been reported to have limited impact on the professional development of teachers as professional development is an ongoing-lifelong process in which the teachers voluntarily engages. In this respect, in the last decade, the concept of professional development of teachers was reinterpreted, the models and methods were altered and professional development was defined as teachers' learning, learning how to learn and transforming knowledge into practice for the benefits of students' growth" as stated by Avalos (2011, p. 10).

In line with the current perspective, Craft (1996, pp. 9-10) states that professional development is a broad term and is used loosely and interchangeably with continuing professional development, inservice training, inservice education in literature to refer to any professional growth activities conducted by teachers beyond initial teacher training and lists the reasons behind conducting them as follows:

- to improve the job performance skills of the whole staff or groups of staff
- to improve the job performance skills of an individual teacher

- to extend the experience of an individual teacher for career development or promotion purposes
- to develop the professional knowledge and understanding of an individual teacher
- to extend the personal or general education of an individual
- to make staff feel valued
- to promote job satisfaction
- to develop an enhanced view of the job
- to enable teachers to anticipate and prepare for change
- to clarify the whole school or department's policy.

Similarly, Guskey (2002) interprets the professional development of teachers as change in the classroom practices of teachers, change in their personal theories, beliefs and attitudes and change in the student learning outcomes and presents the following model for teachers' professional development.

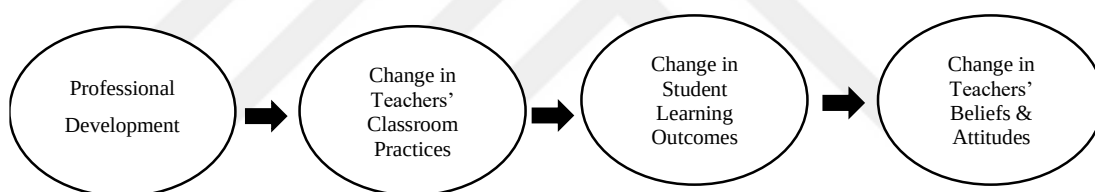


Diagram 1. A model of teachers' professional development

The model clearly portrays that the changes in the implicit beliefs and attitudes of teachers occur when they observe that there are certain degree of improvement in the student learning which happen as a result of change in the classroom practices of teachers such as successful implementation of a new method or a technique. Guskey further states that the process is experimental since the practices that are observed to work well in the classroom are retained and those that don't result in student achievement are abandoned.

Bell and Gilbert (1995) define professional development as a part of teacher development involving the applications of different teaching activities in the classroom and the development of theories and beliefs underlying those activities on the basis of their teacher development model encompassing personal, social and professional development as mentioned before. The core features of the model were continuous support, feedback and reflection. Bell and Gilbert reviewed the professional development

under three main headings namely, initial professional development, the second professional development and the third professional development. In the initial professional development process, the teachers appreciated the problematic side of their teaching which was seen as a usual circumstance in the developmental process. The facilitator constantly communicated with the teachers, valuing their ideas and beliefs and encouraged them to adopt the role of “teacher as researcher” in order to help them observe students and their teaching practices more analytically and teacher as learner in order to acknowledge them that professional development was a life-long learning process. The teachers were presented with alternative methods, techniques and classroom activities from the very beginning of the programme and encouraged to apply them in the classroom and they discussed their reflections in the sharing sessions. In the second professional development stage, the participating teachers were developing new ideas concerning teaching displaying cognitive development by reviewing and clarifying already existing ideas about teaching, constructing new theories, accepting or rejecting those new constructs and reformulating what it means to be a teacher. In the third professional development stage, some of the teachers took initiatives to carry on their professional development with further opportunities after the end of the programme.

There is a wide range of alternative models for professional development of teachers including workshops, self-monitoring, peer observation, action research, teacher research, classroom research, reflective diaries, and collaborative learning groups today. Although they differ in scope, content, and duration, they have several certain common characteristics. Villegas-Reimers (2003, pp. 13-15) lists them as follows:

- They are based on constructivism rather than transmission-oriented models. In this respect teachers are not seen passive recipients anymore, rather they are treated as active learners.
- Professional development is considered as a long-term process.
- Professional development is a process that takes within a particular context contrary to the traditional staff development opportunities that did not relate theory to real classroom experiences.
- The process is intimately linked to the school reform.
- A teacher is considered as a reflective practitioner who enters the profession with a certain knowledge base and personal theories about teaching and who

constructs new theories and knowledge through filtering based on existing schemata.

- Professional development is conceived of a collaborative process although there are some opportunities for isolated work and individual reflection.
- Professional development models may seem very different in diverse settings as it is context based. In this respect, it is unrealistic to expect one right answer or same results in different contexts.

Research evidence has shown that professional development opportunities have crucial impact on the professional growth of teachers in terms of teaching practices and student learning and the literature presents significant amount of studies from variety of contexts portraying positive outcomes of such initiatives and interventions.

Poehner (2011) organized critical friends groups consisting of 26 teachers from several elementary and middle schools in America and local university faculty which was divided into two groups after the training session. The data was collected through reflective narratives of the participants, direct observation and videotaping of the process and numerous in-depth interviews. One participant's data was analyzed in detail through grounded content analysis. It was observed that the process contributed significantly to the professional development of the teacher since she was able to identify the dilemma in her teaching, the process provided an opportunity for communicating the dilemma from variety of perspectives, the group facilitated to reconceptualize the dilemma and thus lead to the distinct changes in the teaching activities. It was also observed that the process promoted the participant to reframe her theories about teaching writing and it was in the direction of increasing student participation and developing their metacognitive strategies to become more self-directed.

Lee (2005) proposed a teacher needs based professional development programme based on three externally funded projects for the teachers of K-3, 4-6, 5-8 grades whose main objective was deepen content and pedagogical content knowledge of the participating teachers and sustain long term learning through collaborative works, reflections, discussions and self-monitored practice. At the end of the programme, the participants reported that they became more knowledgeable practitioners as they were more willing to try out innovative methods and techniques, they became more reflective since they asked more why and how questions to themselves and they became more

student centred as they allocated more time for students to think about a question and come up with an answer.

In order to investigate the impact of collaboration on the professional development of teachers Butler, Lauscher, Jarvis-Selinger, and Beckingham (2004) conducted a longitudinal collaborative research partnership study with the participation of teachers from a one school district and researchers. In fact, the study emerged as a result of a professional development model known as communities of practice which aimed to assist teachers in identifying principles behind “best practices”, defining the principles in context, reflecting on experiences and reframing knowledge about learning and teaching. Professional development activities included workshops, collaboration within schools and across schools, collaboration with the researchers, collaborative lesson planning, teaching and debriefing. Qualitative research design was used as research method and the data was collected through interviews, observations and documents. The results revealed that both teachers and the students became more reflective in teaching and learning. The teachers also stated meaningful shifts in their practice including improvements in instructional methods, classroom routines and skills in matching instructions to the students’ needs. Almost all the teachers expressed beneficial outcomes for students such as increase in self-confidence, self-awareness, independence and motivation. Also, the teachers stated that they were more aware in terms of regulation their learning.

Another longitudinal, collaborative model was applied by Howe & Stubbs (1997) which grew out of a teacher enhancement project based on a constructivist framework. Groups of middle and high school science teachers came together on a university campus in their states for two-week training during three consecutive summers. The main objective was introducing current science research findings to the participants and helping them integrating into their science teaching curricula. The salient characteristics of the model were continuing support, collaboration and team work. On the basis of the data collected at the end of the programme through survey, focus group interview, records and observations, it was observed that the model contributed significantly to the personal and professional development of teachers by increasing their subject matter knowledge, enabling infusing this knowledge into their curricula and teaching practice, enhancing their self-confidence as professionals and increasing their willingness to become involved in such collaborative works.

Burbank and Kauchak (2003) reported the findings of a collaborative action research project organized by the University of Utah. Ten volunteer pre-service and in-service teachers participated in the project, the teams were created among them and they conducted collaborative action research in classrooms after they received training on how to conduct it. The pre-service teachers decided on the topics of research project under the guidance of in-service teachers which addressed students learning needs. The data was collected through formal and informal observational data, questionnaire and interviews. It was observed that the project presented promising results in terms of professional development of teachers suggesting that research teaming provided a mechanism for professional growth through peer collaboration was an effective tool for promoting self-reflection and promoted willingness to conduct action research in the future.

An inspiring study on the professional development of teachers was conducted by Rathert and Okan (2015) which provided valuable insights by offering that professional development is an internal and life-long process contributing significantly to student learning and teaching practice. They identified 21 teacher authors from variety of countries who published studies in an open access journal and interviewed with them in order to question how writing for publication contributed to their personal and professional development. The study revealed that writing for publication enabled satisfaction for participating teachers because of the sense of achievement derived from sharing their classroom experiences with the international community of teachers. Additionally, the participants reported that writing for publication contributed to improvements in their teaching skills, academic skills and professional advancement.

In summary, within this broad area of professional growth, it is crystally clear that traditional knowledge transmission-oriented teacher training is far outdated today and it is a must for each teacher to update themselves to be able to respond to the needs of rapidly changing world, society and educational context which is only possible through ongoing professional development that is based on teacher learning and teacher change. In this respect, the present study exploited a collaborative professional development model known as “Japanese LS” and investigated its impact on the personal and professional development of participating pre-service teachers.

2.5. Lesson Study

LS is a collaborative teacher professional development model that originated in Japan and has been practised widely in schools on a national scale for over a century. Almost all teachers in Japan participate at least one LS team in one educational year whose results and findings are published nationally and internationally.

LS has become the world's most widely practised professional development model recently, which promoted teacher learning and in turn contributed to student learning significantly as stated by Dudley (2015).

Traditional professional development models for teachers generally takes place outside of the classroom environment as seminars, workshops or trainings as short sessions and they are expected to enhance teacher knowledge. Unfortunately, the impact of these models on the student learning and achievement is not evidenced clearly and extensively (Desforges, 2015).

Although several researchers conceptualizes LS as a specialized form of action research (Dudley, 2015; Lewis, 2000) as they share certain commonalities in their nature such as practising them in real classroom environments and having cyclical process, the core motive behind the implementation of action research is research interests as suggested by Hanfstingl, Rauch, and Zehetmeier (2019). Moreover, action research have been reported to cover wider investigation focus and target group and generally implemented individually although it is possible to apply it as a team (Hanfstingl, Abuja, Isak, Lechner, & Steigberger, 2018).

Clearly, LS as a form of continuous professional development model represents the tenets of effective contemporary professional development programs such as action research, classrooms research or teacher research as it is collaborative, field based, research oriented, student learning centred and practice focused. However, what makes it distinctive is the *live* research lesson according to Murata (2011).

The live research lesson creates a unique learning opportunity for teachers. Shared classroom experiences expose teachers' professional knowledge that may otherwise not be shared: teachers notice certain aspects of teaching and learning. This implicit and organic noticing does not happen in artificially replicated professional development settings (Murata, 2011, p.3).

Perhaps, what sets LS apart from other professional development models are its strict collaborative nature and constant investigative focus on student learning which serves for teachers' practice knowledge. It is more specifically focused on the needs of the learners in order to help them reach their learning goals (Hanfstingl, Abuja, Isak, Lechner, & Steigberger, 2018). Additionally, LS provides vital opportunities for the inexperienced teachers to learn from experienced, "the generalist from the expert" but also the reverse of these with a limited training (Dudley, 2015, p.4).

In fact, the application of LS seems simple. A group of teachers come together and define a goal for the RL which is focused on student learning. Then they create a lesson plan together. A teacher in the group conducts the RL while the others are observing it. Later on, the teachers come together and discuss the lesson's effectiveness reflecting on student learning and teacher practice. The cycle continues until the already defined goal is established. The following figure represents a typical LS steps.

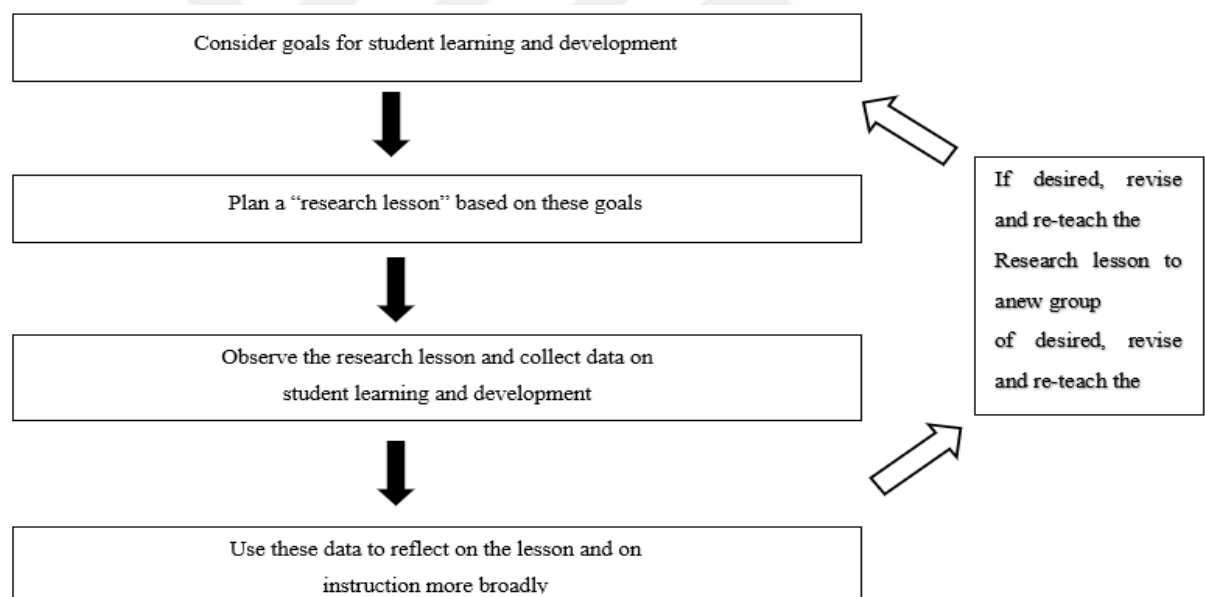


Diagram 2. Lesson Study Cycle (Taken from Conceptual Overview of Lesson Study
Source A. Murata, 2011, p. 2

The theoretical framework that lies behind LS is constructivism, more specifically social constructivism which states that learners are the co-constructors of knowledge emphasizing the role of "others" in the individual construction of knowledge (Vygotsky, 1978). In other words, it could be expressed that learning is a social process of active interaction between the learner and his/her environment which awakens internal speech

and reflective thought that the learner applies to give meaning to his/her experiences. In this context, it could be argued that LS provides opportunities for the teachers to test, question and give meaning to their on-site experiences in cooperation and collaboration with other teachers for the purpose of personal and professional development.

Although LS has worked effectively to connect theory and practice in Japan for more than a century since it makes teacher's practices more practical and understandable through developing deeper understanding of content, student learning as cited by Murata (2011), it started to be used as a professional development tool in the USA after late 1990's and it immediately attracted the attention of researchers, educators and policy makers around the globe. Today, many conferences and workshops have been held all over the world in which the researchers and teachers share their LS experiences and gains contributing to their professional development.

Until recently, LS has been conducted to improve mathematics and science instruction and contribute to in-service teachers' professional development in Japan and the USA and it is possible to find wide array of research findings on them in literature (Murata, 2011). Today, LS has been used almost in all subject areas and adapted into pre-service teacher education by making some modifications in its structure.

One example of this can be seen in the study conducted by Murata & Pothen (2011) with the participation of preservice elementary mathematics method courses students. The study took ten weeks period. In the first five weeks the students worked on the planning stage together with the researchers deciding on the goals, lesson and unit plans and assessment. The actual stage took place in the last five weeks in which the students conducted the RL, reflected on it in groups and shared their experiences with the others in whole class presentations. Murata and Pothen (2011) stated the results of the study as follows:

- LS supported the connection building and sense making process between knowledge and practice.
- Pre-service teachers gained a variety of critical pedagogical skills
- The students focused more on student learning and understand its importance
- LS process contributed to the participants' content knowledge
- LS provided reasons for the students to collaborate meaningfully with the other students.

In another study Fernandez and Robinson (Fernandez & Robinson, 2006) integrated LS into microteaching and observed seventy-four prospective teachers' experience within four different course sections for fifteen-week semesters of an initial course on learning to teach secondary school mathematics. The researchers found out that microteaching LS experience helped the participants connect theory and research to practice which was a missing element in the teacher training program. Also, microteaching LS promoted collaboration and joint decision making among the participants. Of particular importance, the experience contributed to participants' engagement in and learning about reflection.

Similarly, Fernandez (Fernandez, 2010) carried out a microteaching LS with 18 prospective secondary school mathematics teacher which took over 4 weeks during the second half of a semester-long course. The method of the inquiry was interpretive case study as the investigation provided large quantity of qualitative data which needed to be interpreted. Fernandez (2010) found out that Microteaching LS process provided opportunities for authentic active learning, opportunities to trial, analyse, rethink and adjust, opportunities for reflection and collaborative deliberation-in process and provided support from the knowledgeable advisor.

In order to observe the effect of LS on the professional development of teachers Cohan and Honigsfeld (Cohan & Honigsfeld, 2006) incorporated LS in undergraduate and graduate education programs. The study was conducted with the participation of 17 undergraduate students and 51 graduate students. On the basis of the collected data from lesson plan rubric, teaching performance rubric and reflective papers from undergraduate participants and lesson plan rubrics, LS report rubric and LS evaluation questionnaire from the graduate participants, the researchers concluded that LS process promoted a high level of collegial support, a positive professional self-concept and a disposition toward continual improvement of teaching.

Sims and Walsh (Sims & Walsh, 2009) executed a two-year longitudinal LS integrating it into early childhood education. In year one, 32 preservice teachers participated in the implementation. The researchers continued the process with 25 prospective teachers in the second year. Relying on the data gathered from interviews and self-report comments the researchers listed the benefits of LS as follows:

- LS process helped preservice teachers become more reflective both before and after teaching,
- LS contributed to a deeper appreciation for the importance of planning

- LS promoted greater willingness to be self-critical and a refinement of their ability to see the lesson from their students' point of view (Sims & Walsh, 2009, p. 731).

More recently, Leavy and Hourigan (Leavy & Hourigan, 2016) conducted a LS research with students enrolled in a mathematics education module who are in their 3rd year of a 4-year Bachelor of Education degree programme in a university. The study represented a strong formal approach to LS taking place over a 10-week semester with two meetings weekly which took almost 3 hours for each. The findings of the study revealed that LS contributed notably to the participants' pedagogic content knowledge in knowledge of content and students and knowledge of content and teaching subdomains.

In another recent research, Yalçın Arslan (2019) integrated LS into preservice EFL teacher education in Turkey for the purpose of investigating its impact on the professional development of eight EFL teacher candidates. The participants were grouped into three and three RLs developed during 14 week research process which were practised with 10th graders in two cycles. The findings of the study revealed that the collaborative, inquiry oriented LS process contributed significantly to the professional development of the participants as it promoted teacher learning through observing and reflecting on teacher behaviour. Yalçın Arslan (2019) further reported that the process stimulated positive changes in the existing beliefs of the participants because of the learning oriented nature of LS which caused improvements in the participants' content knowledge.

In the light of the research findings, it was assumed that LS could be adapted and implemented into Turkish educational context and would have great potential to contribute to language teacher education in Turkey.

CHAPTER III

METHODOLOGY

3.1. Introduction

This study is an adaptation of Japanese professional development model “LS” into preservice language teacher education and it aims to explore the LS engagement of a group of pre-service teachers and observed their experiences in several cases during planning, practice and evaluation stages. It also and discusses the possibility of implementing LS model into preservice ELT teacher education as an intervention strategy to increase their awareness about student learning, enhance classroom management strategies and develop research-based thinking about the pupils and their practices in the classroom.

The chapter begins with presenting information about research methodology and research design. Then, participating pre-service teachers, method of selection for the participants and research context were described extensively. Next, LS cycles for the present study and LS implementation were discussed in detail as to provide rationale for the research methodology and research design. The following section presented information about data collection tools which ensured wide range of data from variety of sources. Later on, data analysis procedure was explained in detail together with validity and reliability of data as and the scientific software was used for the investigation of the collected data. The chapter concludes with methodological limitations and summary of the chapter.

3.2. Research Methodology

As the present research aimed to shed light on a complex phenomenon called LS and provide a detailed interpretation by observing the participants in their natural context, qualitative research approach was chosen as the methodological foundation for the study.

Although it is possible to find tens of definitions for the qualitative research inquiry, providing a clear and extensive definition is quite difficult according to Ritchie and Lewis (2003). However, some writers presented long and comprehensive definitions for the purpose of covering core characteristics inherent in the nature of qualitative inquiry.

Creswell (2007) in his descriptive manual for qualitative research offers the following description for the qualitative research inquiry:

Qualitative research begins assumptions, a worldview, the possible use of theoretical lenses and the study of research problems inquiring into the meaning individuals or groups ascribe to a social or human problem. To study this problem, qualitative researchers use an emerging qualitative approach to inquiry, the collection of data in a natural setting sensitive to the people and places under study, and the data analysis that is inductive and establishes patterns or themes. The final written report or presentation includes the voices of participants, the reflexivity of the researcher and a complex description and interpretation of the problem and it extends the literature or signals a call for action (Creswell, 2007, p. 37).

Similarly, Denzin and Lincoln (2018) in their comprehensive handbook for the graduate students of social sciences and humanities define qualitative research as:

Qualitative research is a situated activity that locates the observer in the world. Qualitative research consists of a set of interpretive, material practices that make the world visible. These practices transform the world. They turn the world into a series of representations, including field notes, interviews, conversations, photographs, recordings, and memos to the self. At this level, qualitative research involves an interpretive, naturalistic approach to the world. This means that qualitative researchers study things in their natural settings, attempting to make sense of or interpret phenomena in terms of the meanings people bring to them (Denzin & Lincoln, 2018, p. 43).

As can be seen in the definitions above and other definitions provided in the literature, there are certain key aspects that are shared by most definitions and, Creswell (2007) summarizes these common characteristics of qualitative research as follows:

- Natural setting
- Researcher as key instrument
- Multiple sources of data
- Inductive data analysis
- Participants' meanings
- Emergent design
- Theoretical lens

- Interpretive inquiry
- Holistic account

Within this perspective, qualitative research approach was seen as compatible with the nature of LS professional development model because of the similar characteristics of each.

First of all, LS applications are conducted in real classroom environment in which the participants collect data through direct observation of students while the RLs are being carried out. In this respect, what the LS group is doing in the classroom is not a pseudo teaching or the environment is not a micro class. The data is collected in its natural context where the overarching goal of RLs is investigated or the research problem is sought.

Also, the researcher is present at all times during the planning, application and evaluation of RLs in LS and works as a guide or a knowledgeable person for the participants. In fact, RLs are open to any interested teachers, observers, and school administrators. While the researcher is collaborating with the LS group, he/she collects data and investigates behaviour at first hand.

LS provides rich data for the researcher from a variety of sources. A RL consists of lesson planning meetings, RL application and post lesson discussions that LS group jointly plan, teach, analyse and re-plan RLs which are audio or video recorded generally. Additionally, each LS group member keeps observation notes while observing the learners in the classroom during the implementation. Also, the group members can keep learning journals optionally in which they record their LS experiences. In this sense, the researcher does not have to be bothered about triangulation since LS applications are conducted at least three times.

The collected data from different sources in LS necessitates noticing things under investigation, reading data further and collecting further information and thinking about that information analytically. It is cyclical process and the researcher reaches a conclusion by going back and forth among the data sources. Therefore, the process leads the researcher to follow a bottom up processing in analysing the data although he/she does not have to do so. In this sense, it is also possible to talk about emergent process in the application of RLs in LS because what you intended to observe at the planning stage may change or lead to other research problems in the application of each RL.

Although the researcher collects his/her own data while investigating LS process, the participants also interpret the experience from their own perspectives and reflect it to their

own data sources such as reflective journals, observation sheets or express it during lesson planning and post lesson discussions. In this regard, the main data source of the researcher is the participants' own meaning making of the LS experience.

Lastly, LS has a holistic approach as it aims teachers' professional development by taking student and teacher learning into consideration. Although LS group works to improve student achievement and design RLs for this purpose, the core objective is a collaborative vehicle for professional learning.

3.3. Research Design

As a form of qualitative research, case study design was used in the present study. Since case is a generic term in qualitative research methodology, it is possible to encounter many definitions in literature as in the definition of qualitative research.

According to Creswell (2007) case study is a type of qualitative research in which the researcher investigates a phenomenon or multiple phenomena over a period of time by using variety of data collection tools which provide large quantities of data and lead to in depth analysis and reports a case description and case-based themes.

In an article on case study methods, Sturman emphasizes holistic nature of case study design as a distinctive feature of the method and described case study as in the following.

'Case study' is a generic term for the investigation of an individual, group or phenomenon. While the techniques used in the investigation may be varied, and may include both qualitative and quantitative approaches, the distinguishing feature of case study is the belief that human systems develop a characteristic wholeness or integrity and are not simply a loose collection of traits. As a consequence of this belief, case study researchers hold that to understand a case, to explain why things happen as they do, and to generalise or predict from a single example requires an in-depth investigation of the interdependencies of parts and of the patterns that emerge (as cited in Bassey, 1999, p. 26).

Yin, (2009) in his popular book on case study design, that he gave an extensive discussion of the method and compared it with other research methods, provided a technical twofold definition of case study design which encompasses the scope and the characteristics of the inquiry. In order to explain the scope, he wrote a case study is an empirical inquiry that:

- investigates a contemporary phenomenon in depth and within its real-life context especially when
- the boundaries between phenomenon and context are not clearly evident.
- The second part of the definition discusses other features of case study research design such as data collection and data analysis techniques. Concerning these features Yin (2009) states that case study inquiry:
- copes with the technically distinctive situation in which there will be many more variables of interest than data points, and as one result
- relies on multiple sources of evidence, with data needing to converge in a triangulating fashion, and as another result
- benefits from the prior development of theoretical propositions to guide data collection and analysis. (Yin, 2009, pp. 13,14)

In a similar vein, Merriam (1988) draws attention to the holistic nature of case study research and underlines in depth analysis of case or cases. She defines qualitative case study as “an intensive, holistic description and analysis of a single entity, phenomenon, or social unit. Case studies are particularistic, descriptive, and heuristic and rely heavily on inductive reasoning in handling multiple data sources” (as cited in Duff, 2008, p. 33).

Further analysis of the definitions provided above indicate that the distinctive features of case study research design are context dependency, in depth investigation of a case or multiple case, different perspectives, variety of data sources and large quantity of data

In the present study the subject of inquiry, the impact of LS on preservice language teachers’ professional development, was investigated in its natural context thoroughly in multiple cases through RL applications. Large volume of data reflecting both participants’ and researcher’s perspectives was collected from variety of sources including pre and post semi structured interviews, researcher’s observation notes, reflective journals of the participants, lesson plans, transcriptions of audio or video-recorded RLs, and group discussions of the RLs and analysed in detail through the use of a qualitative data analysis software. In this sense, case study research design was considered as the most appropriate for the study as it allows analysing extensive data drawing on multiple sources intensively over a certain period of time which could be considered as long.

3.4. Research Context

This LS research which is made up of multiple cases was conducted with the application of five RLs each of which was implemented in five different public schools that are located both in the city centre and suburbs of Aksaray city. The following table displays the details about each research school and the classes where RLs are implemented. School names are not provided explicitly because of ethical concerns.

Table 1.

Research Context

Research Lessons	School	Location	Type	Classroom Layout	Grade	Number of Students
Pilot Study	P.M.P. Secondary School	City-Centre	Public	Traditional	7	24
2	H. C. Ü. Secondary School	City-Centre				30
3	Y.H.B. Secondary School	Suburb				30
4	H. C. Ü. Secondary School	Suburb				12
5	M. T. E. Secondary School	City-Centre + Suburb				25

The first RL in which the study was piloted was practiced in P. M. P. Secondary School. Because of its location in the city centre, the school is densely populated but the number of students in most of the classrooms are on average due to the large size of the school and number of classes. Most of the classrooms are have physically enough space for class activities and equipped with smartboards, computers, sound system and so on but the seating arrangement is traditional classroom layout in which the desks are organized facing towards the board for teacher fronted instruction. There are 47 teachers in each branch in total and the number of teachers in English teaching department is the highest with 7 teachers. Therefore, it is not possible to talk about poor educational structure because of the insufficient number of teachers, overcrowded classrooms and

limited technological infrastructure. In this respect, the school has been chosen by parents whose socio-economic level is on or above the average most of whom are working as public officers in several professions.

There were twenty-four students in the RL classroom whose readiness level was above the average and they were quite interested in English classes on the basis of English teacher's accounts. Two of the students were behind the majority in terms of level of achievement since they were refugees from Syria and they had very limited Turkish and English languages. The classroom was smaller in size compared to the other classes but it was within the bounds of applying planned RL activities.

For the second RL H. C. Ü. Secondary School was selected by the LS group. The school lies close to the city centre just like pilot study school but it is smaller than that in terms of size and student and teacher number. There are eighteen classrooms and one computer lab at school but the number of students is 614 which means that the classrooms are crowded. 37 teachers from each department are serving students and the number of English teachers is quite few compared to the other branches. Only three English teachers undertake all English classes at school. The students come from variety of socio-economic background including low, medium and high. In this respect, the school is multidimensional in terms of students' achievement, readiness level and socio-economic status. Based on teachers' comments, some of the students have low aptitude, motivation and interest towards courses and English class was not the one favoured least among them.

The classroom where the RL was implemented was equipped with smartboard and computer and physically spacy enough to carry out planned activities. In terms of population, the class could be considered as crowded because the number was around 30 students. There were also some refugee students whose native languages were different from the majority as in the pilot study school.

The third RL was conducted in a different public school from those mentioned above. LS group intentionally decided to implement the RL in a school located in a disadvantaged area in which the students were assumed to come from low socio-economic background and hence, have limited proficiency level and interest and motivation towards courses. Therefore, Y. H. B. Secondary School which is located in the suburb area far from the city centre was planned for the application. Although the school is located in a suburb area, it has better substructure than the others do as it has recently been built recently. There are 18 classrooms all equipped with smartboards,

projections, computers and sound system. 460 students residing in immediate surrounding receive education from 18 teachers. There are four English teachers who are responsible for providing English courses.

Although the school has better conditions and technological substructure than most of the schools in and around Aksaray, the academic achievement level of the school is lower than those because of the parental education and family structure in the neighbourhood. The surrounding is densely populated by low income large families, with families with low or non-education level and refugee families who have very limited income. These considerations directly or indirectly link to students' academic achievement as stated by the teachers working at school.

There were thirty students in the RL classroom most of whom were from low income and education families as mentioned above. The classroom was equipped with smartboard and other tools as in the previous RL schools. The number of refugee students were greater than those in the previous applications. The seating arrangement was traditional row shape that all the students faced towards teacher and board. Other than low motivation and interest in English lessons and other courses, disruptive behaviour was another challenge for all teachers.

For the fourth application, the group decided to implement the lesson in a similar school to the previous one which lies outside the city centre. As a result, the group selected H. C. U. Secondary School for the application. The reason behind selecting such a disadvantaged school was to observe if it was possible to reach the overarching goal again by engaging most of the students into the classroom as in the previous applications despite the constraining factors such as family problems, low socio-economic status and parental education that prevent the students from integrating themselves into the school life successfully. Compared to the previous one, the students had to struggle with worse conditions as expressed by school director and the drop rate was one of the highest in the city since the students had to support their family financially and could not follow the classes regularly. Therefore, the success rate of the school is quite behind from its counterparts. The school is smaller in size than the previous schools that RLs were practised. There are only eight classrooms which are equipped with smartboards as in the other schools. Thirteen teachers were working at school and only one of them was an English teacher.

The RL was conducted with 12 students which could be regarded as ideal number for an effective application. The technological substructure also contributed to the

successful implementation of the RL. Although LS group was informed about students' poor readiness level, background knowledge and low motivation, it was observed that students were really interested in the RL and planned activities.

The fifth and the last RL was carried out at M. T. E. Secondary School because it was observed that the students' readiness level and socio-economic status in the previous practices did not pose a threat to reach overarching goal. In this respect, LS group decided to implement and observe the RL in a school where the students from all achievement and readiness level receive education and whose surrounding area and neighbourhood is inhabited by parents from all socio-economic background and education level. The school lies a few kilometres away from the city centre and the physical environment and technological conditions of the school was quite healthy. There were approximately 750 students studying approximately and thirty-five teachers were serving at school. The classes are all equipped with smartboards as in the previous applications.

There were 25 students who were willing to participate in the activities and motivated to learn in the classroom where the planned RL was conducted. The seating arrangement was traditional lecture style as in the previous classrooms. There was enough classroom space that allows applying planned activities and student participation.

All in all, it could be stated that the RLs were carried out at a number of schools where the students come from different socio-economic background and academic performance study as mentioned before in order which made it possible to reach reliable data for each case and obtain valid results that could be comparable with each other.

3.5. Participants

This study investigated LS experience of six preservice ELT teachers and observed its impact on their professional development. Although six senior year ELT students participated in the research, there were other participants including the researcher who plays a crucial role in organizing research team and RLs and an outside specialist who contributes greatly to the quality of the experience by providing valuable thoughts within and outside lenses.

3.5.1. Preservice Teachers

This case study research was conducted with the participation of six ELT students studying at Aksaray University. The participants were selected among the volunteer students who were in their senior year. In fact, the students were given a brief lecture about LS in order to build awareness about it and identify interested volunteer collaborators as advised by Lewis and Hurd (2011).

Among the volunteers, the researcher selected six participants who were considered as the representative sample of the target population, in other words, purposive selection model from non-random sampling method was applied. Fraenkel, Wallen, & Hyun, (2012) stated that researchers depend on their personal opinions to judge whether or not the selected samples are the representative while deciding on a sample in purposive selection model. As the researcher is familiar with the students from their teacher education courses, he chose the participants who would provide the data serving for the aims of the research based on his prior knowledge about them. The following table specifies the distribution of preservice teachers based on gender, age, general academic average and professional experience.

Table 2.

The Distribution of Participants

Participant ID	Age	Gender	Academic Standing	Professional Experience
Participant 1	25	Male	Above	No Experience
Participant 2	22	Female	Average	No Experience
Participant 3	23	Female	Average	No Experience
Participant 4	23	Female	Above	No Experience
Participant 5	22	Female	Average	No Experience
Participant 6	27	Female	Average	No Experience

Note: In academic standing column, “above” represents general academic score between 3.00 and 4.00 average represents general academic score between 2.00 and 3.00

The Table 1 clearly represents that there was not an equal distribution among partners in terms of gender, age and academic standing because of the fact that this qualitative case study research aimed to explore LS engagement of preservice teachers and observe if they had gained critical perspectives about student learning, built greater awareness

about students and their needs and developed research-based thinking about the pupils and their practices in the classroom. In this sense, an equal distribution among the variables was not sought as gender and academic average difference did not guide inquiry as research questions.

Depending on the scale whether it is local or national, LS is conducted with participants in different numbers. In such small-scale studies investigating the cases in depth as in the present research, the ideal number reported for a LS group was three to five (Lewis & Hurd, 2011; Cerbin, 2011). The reason behind conducting the research with six participants was both contributing to the validity of the results by obtaining further data and preventing obstacles that would hinder the research process such as failing to attend RLs because of illness or other issues.

3.5.2. Researcher

The researcher had three distinctive vital roles in the whole research process including trainer, participant, and observer. He attended at all stages of LS professional development intervention without any exceptions

First of all, the researcher provided five-week trainings on LS which took five weeks that the participants received theoretical and practical knowledge about LS process and how to carry out RLs.

Second, the researcher participated in the RL planning meetings, and post RL discussions by being in close interaction with the students, and acted out as counsellor by providing help when the participant preservice teachers were stonewalled during the process and needed advice. It is significant to note that the researcher did not intervene directly and change the flow of the process with his opinions or thoughts, as it was preservice teachers' primary duty to plan, conduct, review and redesign RLs.

The last role of the researcher included, his conventional researcher duties that he selected participants and organized research group, observed interactions among the participants during RL meetings, investigated RLs and took observation notes, organized interviews and collected data concerning research focus and analysed data.

3.5.3. Outside Specialist

As mentioned before, outside observers play a significant role in LS process as they provide different standpoints that the participants missed or struggled to see and thus

greatly enhances experience for the students. Lewis, (2011) advises to consider a subject specialist from the university or school as an outside observer since they can easily reach relevant literature dealing with RL focus under study, provide high quality curriculum examples and ensure participants' questions concerning subject matter be answered.

Within this perspective, a colleague from the researcher's department at university was invited to participate in the research as outside observer and given information about LS procedure and his tasks and duties during the process. He was also requested to take part in the whole process consisted of one pilot study and four applications which included lesson planning meetings, RLs, post lesson discussions and interviews with the participants for each as Lewis (2011) states that the contribution of outside specialist to the participants' experience would be much higher if he/she gets involved in the process early on.

The outside observer was willing to participate in the research with his consent and attended all LS cycles without exceptions. His reflections, thoughts and ideas added another dimension to the participants' RL experiences and enhanced their learning as teachers and the participants benefited a lot from his observations and comments as stated by them.

3.6. The Lesson Study Process

This study is the adaptation of Japanese LS Professional Development Model into LTE context in Turkey. Although the literature portrays different variations of LS applications around the globe, the present study stuck to the original format as much as possible. However, minor modifications in the original structure were necessary in order to respond institutional and political constraints. Although LS is a flexible process and it is not compulsory to be dependent on curriculum sequence in organizing RLs as they are designed to raise self-reflection and evidence-based thinking for the participants, the present research took curriculum into consideration while RLs were planned in order not to cause breakdowns in the implementation of the curriculum at schools.

The implementation of the research was planned to take place in 2016-2017 academic year and the researcher followed the envisaged scheduling of the study. The research process started with the identification of the participants and formation of the LS group. As mentioned before, the researcher selected the participants among the volunteer students through purposive sampling. A meeting was organized with the participants and

outside observer right after the selection in order to arrange appropriate days to meet for the planning, application reflection and re-planning of the RLs. The group decided to meet two days each week, on Tuesday and Thursday, in the afternoon checking their schedules.

After getting research ethics committee approval from the university, (see Appendix A), permission was granted from Directorate of National Education to conduct RLs at public schools in central Aksaray city (see Appendix B). In order to get the permission a formal application form including research ethics committee approval, research description, participants' information, data collection tools were all submitted to the Directorate of National Education.

There were two stages in the whole research process namely, theoretical and practical phases. Theoretical phase was devoted to the trainings of the participants concerning LS process which provided the philosophy behind the intervention as well as practical information through pilot study application. Practical phase was the scene for putting the theory in action which the participants tested their theories they put forward collectively during the process, reflect on them and retest further ones. The following diagram presents the steps taken during the whole research process.

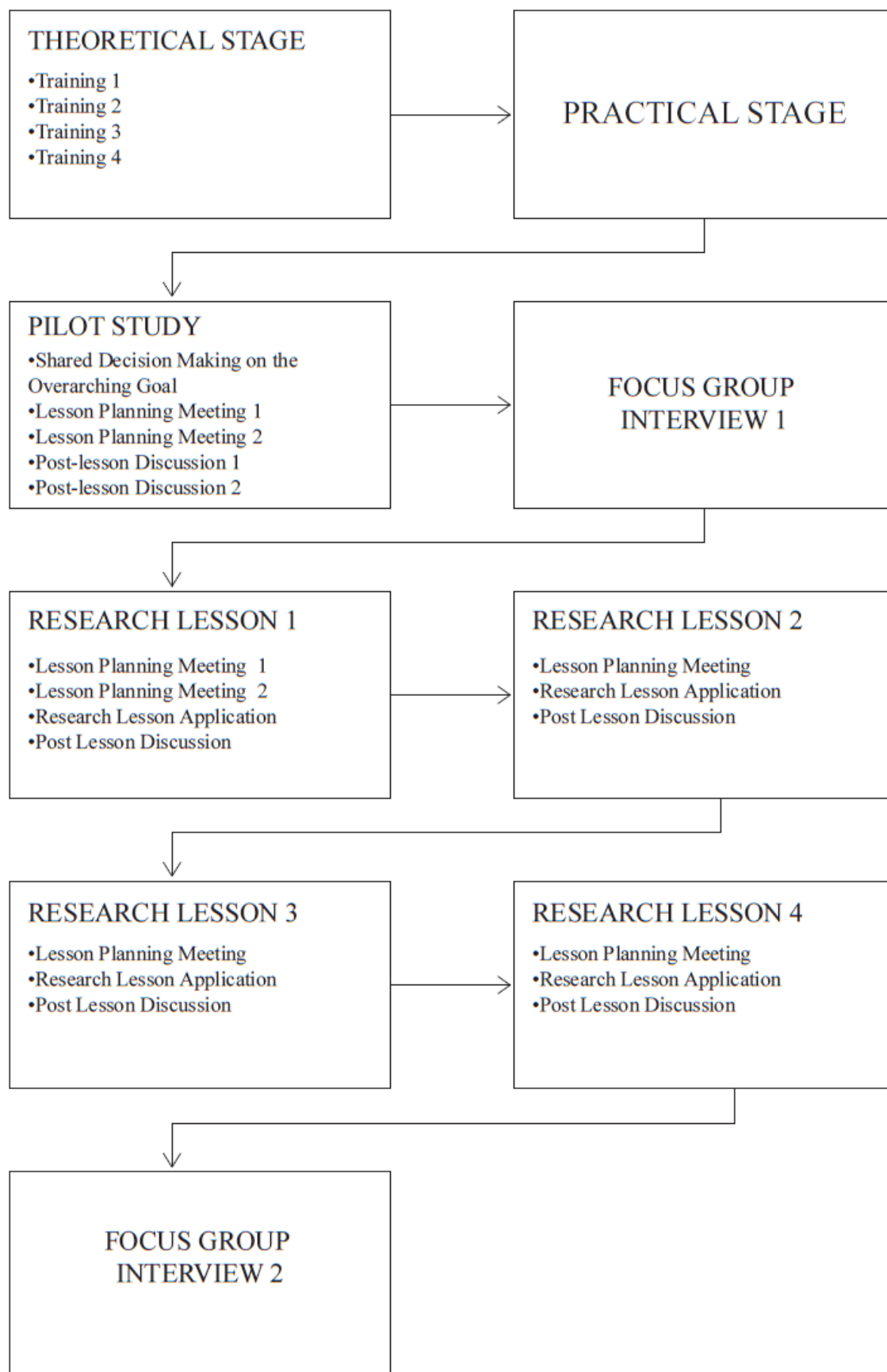


Diagram 3. Lesson Study Process

3.6.1. Theoretical Phase

Theoretical stage lasted for five weeks. The researcher arranged a room at the university for the training sessions that was equipped with computer, projector and sound system. Each session was presented with Power Point presentation and video recorded as discussed with the participants in the planning for the analysis. The following table displays the training content presented to the participants during the theoretical stage.

Table 3.

Training Content

Week	Content
1	What is LS: General Overview of LS Process
2	Finding a Focus for LS Research Lessons
3	Designing and Planning RLs
4	Observing Classroom and Investigating Student Learning During RLs
5	Analysing and Revising the RL

The first training content was LS process in general in order to provide a clear picture for the participants about what LS actually is and accompanied with a video recorded by LS Alliance in the USA on the experiences and reflections of teachers from variety of branches who participated in a LS group. The idea behind beginning the training with the video was getting the participants full attention and helping them visualise what they would gain during the experience and it worked as it was planned because the participants focused on the whole presentation and discussed its applicability in Turkish context. The content of the presentation included the history of LS, the purpose of LS, LS cycles and it took an hour for the researcher to present it.

As mentioned before LS is consisted of ongoing cycles of RLs that are collaboratively organized by a group of teachers and continues until the overarching goal is obtained. Each cycle includes joint planning of RL which is also known as lesson planning meetings, teaching and observing RL and post lesson discussions that the participants reflected on the RL and discussed its effectiveness and changes in the structure for the next RL. In this respect, the following weeks dedicated to the detailed analysis of each cycle in the training.

The second training content was on finding a focus for LS RLs which is the initial step of the process known as overarching goal that guides whole study. In fact, if LS is considered as a research, finding a focus implies deciding on the research questions. The participants were informed about how to define a focus using top down and bottom up processing namely, learning goal approach and learning problem approach as suggested by Cerbin, (2011). Each approach was explained with an example in detail and the participants were informed that they were free to choose any depending on their context.

After the participants were informed about research focus and relevant learning goals decided on before the RLs, they were presented on designing and planning RLs which could be considered as the vital stage of the LS application. Within this perspective, the researcher distributed relevant literature materials to the participants before the third training session as he requested them to come to the meeting prepared. Compared to the previous training sessions, the third training took longer time. For the purpose of drawing participants' attention, the researcher started with an experience of a novice teacher's experience who was concerned about covering the subject matter only and ignored all the other factors during the course until his LS experience. In fact, the purpose was transmitting to the participants that the lesson was more than that and LS helps teachers to see it. There was a discussion at the end of the meeting concerning lesson plan used in LS applications which was particularly different from traditional lesson plans

As LS is student learning based intervention, it is crucially important to gather evidence about how students learn, investigate if the lesson contributes student learning, and explore aspects of the classroom context and student behavior (Cerbin, 2011). In this sense, the fourth session aimed to train participants on how to observe classroom and investigate students during RLs. Careful consideration of data collection was underlined and the students were informed about data collection tools during the observation in detail.

The fifth and the last training session was allocated to provide training on analysing and revising the RL conducted. The researcher informed that the analysis intended to assess the quality of the lesson conducted using the evidence gathered. It was also pointed out that the discussion centers on student learning and how to improve student learning but it was mentioned that it was necessary to talk with data and evidence. It was emphasized that it is vital for the RL teacher begin the discussion through self-reflection. The participants were also warned that post lesson discussion meeting is not a ground for criticising RL teacher as the lesson is designed collaboratively and a missing thing in the

instruction is the failure of all participants. In this way, it was aimed that the comments and feedbacks would move away from teacher and teaching and center on student and student learning. Within this perspective the participants were distributed LS Protocol prepared by Dudley (2011) in order to provide unconditional positive relationship among the participants that is based on mutual tolerance and respect (See Appendix C). In this way, it was planned that the participants would discuss everything concerning RL without fear of criticism.

With the end of the fifth training session, the theoretical part of the LS process was over and the participants were told to reflect on what they were trained on, observe student learning in their practicum schools and think of an overarching goal and grade to conduct pilot study RL.

3.6.2. Practical Phase

The practical phase of the research consisted of one pilot study and four RLs each of which implemented in five different research schools. The RLs were practised with the beginning of the second half of 2016-2017 academic year and proceeded until the end of the academic year. The details about each application are given in the following sections.

3.6.3. Pilot Study

In fact, the logic behind conducting pilot study was to test the applicability of LS into Turkish educational education context with the participation of preservice English language teachers. In this respect, the participants were told to monitor students, observe the possibility of conducting RLs taking contextual factors into consideration and think of an overarching goal and RL goal during their practicum experience.

Pilot study works began with the distribution of group goal selection document that is prepared by Ertle, Chokshi, and Fernandez (2002). The participants were requested to complete the document which is composed of four questions concerning RL goal and send it back to the researcher before the first lesson planning meeting (See Appendix D for a sample). The researcher analysed the documents in order to identify similarities and differences and it was seen that all participants were emphasizing motivation and student engagement on the basis of their experiences with the students in their practicum schools.

The first lesson planning meeting was held at the beginning of 2016-2017 academic year spring term. The researcher prepared a file for each participant containing another

LS Protocol which provides extensive guidelines about how to observe RL and reflect on it during the debriefing session and lesson plan template (See Appendix E & F) developed by Ertle, Chokshi, and Fernandez (2002). The meeting lasted longer than expected compared to the other meetings for about two and a half hours as the discussion centered not only on guideline and lesson plan but also on overarching goal for the RL. Overarching goal known as research focus is the critical underpinning of LS and plays a crucial role for building the research on solid bases. Although a RL is intended to obtain immediate academic learning goals, it is not limited to the academic achievement of the students only. In the original version of Japanese LS applications, content specific learning goals are associated with wider school, institution or nationwide goals that emphasize personal qualities such as curiosity, creative thinking, higher order thinking etc., which are vital for intellectual capacity as cited by Cerbin (2011). In this sense, for the first planning meeting, the researcher brought Regulations on Primary Education Institutions published by Ministry of National Education in order to identify overarching goal on the basis of the purposes and the principles of Turkish National Education. After reviewing the regulations, LS group decided on the goal “contributing to students’ personal development through social, cultural and educational activities with methods and techniques that are going to be put into practice by the teacher” since they thought that the students are not able to find enough opportunities during the courses supporting their personal development as the lessons generally lack engaging and motivating educational activities responding to the needs of the students because of the negative effects of high stake tests. It was also seen that the goal was in accordance with the purposes of national education. In this way, the group thought that the students would actively engage in the motivating activities provided by the LS group.

Following the decision on the overarching goal, the group discussed extensively about the grade to conduct RL and agreed on Grade 7 to apply pilot study. Later on, the researcher and the group looked over Grade 7 syllabus for English course in order to choose a topic for the RL taking the curriculum into consideration without interfering with the flow of the planned syllabus. The group reviewed each unit with their topics and target functions and intentionally chose a troublesome topic for the students to comprehend in order to better observe student learning during the RL. Within this perspective, the research group opted for unit 8 that requires the learners to transfer of already learned items into the new learning context, which the research group considered relatively more difficult compared to the other units. When the discussion was over

about the goal, grade and unit to cover, the research group discussed lengthily about how to obtain goals of the unit by arousing students' interest and motivation and so they assumed that they would increase participation and engagement during the course of the instruction. The group examined each section of the lesson in detail, decided on the methods, activities and materials to use in the classroom and grouped themselves into three for the preparation of pre-while and post lesson activities until the next lesson-planning meeting. In the second meeting all the class materials were ready as planned and the group wrote the lesson plan together (See Appendix G). following the guidelines developed by the LS Research group at Columbia University (Ertle, Chokshi, & Fernandez, 2002), (See Appendix H) which is organized by sections, each focusing on a particular aspect of the RL and gives detailed information about each taking expected student response and teacher reaction into consideration. After the selection of the RL instructor on a voluntary basis, LS group decided to conduct pilot study in one of the practicum schools as they were familiar with the students.

Before the pilot study conducted, LS group gathered in the meeting room two hours before the application in order to demo pilot RL to see if everything goes as planned and check class materials that were going to be used during the course of instruction. Also, the researcher distributed another file to each participant containing lesson plan, class observation sheet (see Appendix I for a sample), LS protocol and student interview form (see Appendix J for a sample). When the preparations were completed, the group came together at the school half an hour before the application. When the bell rang for the break, the observers got into the classroom found a place to observe without interrupting the learners. The RL teacher prepared the materials for the course and waited for the students to come in. The researcher also invited English teacher to participate in the RL and he accepted without hesitation. After a brief explanation about the RL and the role of observers to the students, the RL teacher conducted the application.

When the RL was over, the group gathered at the meeting room on the same day as planned after organizing documents and observation notes to conduct post lesson discussion. The discussion followed the procedure written in LS protocol. The researcher was assigned as the moderator of the discussion, one member of the group became recorder and the other member kept the time. The moderator's duty was to outline the agenda and shape and lead the flow of the discussion, the recorder kept the track of the discussion in written and visual and the timekeeper organized time. The outside observer acted as adviser whose responsibility was to clarifying and enlightening the participants'

comments and reflections during the meeting. The post lesson discussion started with the RL teacher's own comments and reflections concerning the RL steps, student learning, what worked well, what didn't work as planned and necessary changes in the lesson plan. Following the RL teacher's comments, other members of the group share their observations and feedback without criticizing RL teacher, concentrating on student learning. Each member in the group had the opportunity to express their thoughts, reflections and suggestions on how to make the RL better.

After the post lesson discussion, the participants were told to think and reflect on their experience considering all aspects of LS including theoretical and practical stages for a few days and take notes in order to comment about their opinions on LS in focus group interview. Focus group interview took place two days after the application of pilot study RL and lasted for about one hour. The interview intended to elicit participants' deeper thoughts and insights about their LS experience. Within this perspective, the researcher who served as moderator prepared a focus group interview guiding questions (See Appendix K) which are open ended and video recorded their insights and reflections about the experience.

The aim of the pilot study was to test the possibility of implementing LS professional development model into Turkish educational context with the participation of preservice ELT teachers as mentioned before and it was observed that LS would be a powerful tool for the preservice teachers that would lead self-critical reflection, individual professional development, and instructional improvement as expressed by Lewis (2000), and it is feasible and applicable for Turkish educational context in spite of the constraints of contextual factors.

3.6.4. Research Lesson 1

When the pilot study was accomplished as planned, LS group followed the same procedure for the following RLs. A week after the pilot study application, the group came together at the meeting room to discuss about research focus for the first RL. After a long discussion, the group decided to use the same overarching goal for the following RLs as they thought that motivation and student engagement were closely correlated with each other, they were significant predictors of student learning, and academic achievement that leads to learners' personal development. It was also stated that disengaged and demotivated learners were two main constraining factors hindering enhanced student

learning in most of the public schools in Turkey. Within this perspective LS group decided to prepare the RL by taking following principles into consideration as remarked in the RL plan (See Appendix L).

- Creating a classroom environment that takes all the students' needs and individual differences into consideration through rich variety of activities,
- Avoiding from explicit grammar instruction,
- Organizing challenging but manageable tasks for students,
- Integrating technology into class as much as possible in order to support students visually and auditorily
- Arousing students' curiosity about the topic being studied through interesting and engaging activities,
- Implementing fun element into the classroom instruction through the use of games

Similarly, the group decided to apply the same RL content that they did in the pilot study as they identified many drawbacks contrary to what was planned in the pilot study lesson-planning meeting and they were willing to reteach the same content by making necessary changes in the structure. In this way, the group agreed on the research focus and lesson content.

For the first RL, the group came together twice at the meeting room. The first meeting content centered on the research focus. Therefore, the researcher brought some documents concerning student engagement and motivation and strategies that promote student engagement and increase motivation from the literature and gave a brief presentation in order to help students find ways to strengthen engagement for the RL. Also, the teacher distributed a checklist measuring student engagement prepared by Srikanthan (2011) for the purpose of observing student participation during in-class activities. After the presentation, the group members examined pilot study lesson plan in detail considering their observation notes about each lesson step and post lesson discussion notes and started to discuss at length how to fix drawbacks observed in the pilot study RL and how to better improve student learning and lesson itself for the first RL. Within this perspective, the discussion concentrated on time constraint, overuse of native language, poor instruction, sharp transition between the activities and overcrowded

content, which were observed during pilot study application. The group also elaborated that the students sitting at the back of the classroom were not participating in the activities as expected. LS group reflected on each evidence and discussed possible changes in detail for the next RL. On the basis of the collected data, the group decided to make major changes in the structure of the previous RL in order to improve student learning and obtain research focus. Each group member was assigned with one step of the lesson to make necessary changes and make it ready for the second lesson planning meeting.

The second meeting was held a week after the first lesson planning meeting and the group members were all present with the assignments that they were responsible for. The group had updated the activities before the meeting as discussed taking time constraint into consideration and reduced the number of activities and the time spent on each activity. Also, the structure of the “quiz show” activity planned to be used in the practice section was changed in order to increase engagement and minimize the use of native language. As the group observed that the game had caused chaos and disruptive behaviour among the students who were not selected to compete, another game was planned for the follow-up section. The new game was planned as it would allow all students to participate in the activity. When all the group members agreed on the changes, lesson plan was prepared collectively. The meeting ended with the selection of the RL teacher and RL school for the next application. Before leaving the meeting room, the RL teacher offered to conduct a demo lesson to the group members on the same day of the first RL. RL demo was scheduled and the meeting was over.

LS group came together again at the meeting room for the demo lesson and RL teacher presented demo lesson to the group members in order to check if everything was going as already planned. The group warned RL teacher to be careful about clear and comprehensible instructions and smooth transitions between the activities. Minor changes were applied in the activities after the demo lesson and the group moved to RL school to conduct first RL.

The first RL was conducted at H. C. Secondary School as mentioned before. LS group including the researcher and the outside observer all attended the first RL. Although other teachers and school administration were invited to participate in the RL, the offer was turned down as there was not enough space in the classroom for the other observers. Each member found a corner in the classroom considering not to disturb students during the course of the instruction. The teacher performed the RL while other members of the

group were recording their observations. The RL ended a few minutes after the bell rang for the brake.

The group gathered at the teachers' room at school immediately after the lesson was over in order to decide on the scheduling of post lesson discussion and it was decided to arrange the meeting the day after the RL application in order to revise and organize observation notes, walkthrough checklist and student interview data. The researcher also reminded the group members to reflect on each step of the RL and focus on any obstacles and events that happened during the process contrary to what was planned in order to discuss in detail for the following meeting.

As written in the LS protocol, RL teacher began the discussion by reflecting on her own teaching and critical moments that she observed during the instruction in the Post Lesson Discussion. She expressed that one of the most critical moment was when she had trouble in using the technology for the planned activities. While deciding on the overarching goal, the participants emphasized the importance of integrating technology into the classroom in order to increase motivation and engagement. Therefore, nearly all activities were planned to implement with the help of smartboard and computer but technical problems put the teacher in a tight spot in front of the students and the teacher struggled over, as it was not anticipated before. The teacher advised to check those activities in a smartboard before implementing them during the discussion. Another critical issue was time constraint. Although, LS group made fundamental changes in the structure of the lesson plan and class activities in order to fit RL in one class hour, the application exceeded the time limit which made LS group rethink on the lesson plan for further changes. Additionally, the observers recognized a serious case while organizing the groups and arranging group members which was not recognized by the RL teacher. They stated that the number of students in each group were not equal and some students seemed to be reluctant to take part in certain groups and wanted to change the group but the teacher rejected the demand. It was observed that those students did not participate in the game. The researcher recorded the case in order to inform students about group work organization with relevant literature for the next RL. Despite the fact that the game contributed to increase engagement and motivation, there were certain instances that hindered student engagement such as psychological considerations and group work organization. Although much of the discussion centred on the application of the game, the group also observed minor drawbacks in giving instructions, using the voice and addressing the students which did not cause serious constraints in the flow of the RL.

After the RL teachers' reflections and comments on those issues, the group checked walkthrough checklist together and saw that verbal participation of the students were above the medium as expected. Later on, the direction of the discussion changed with a participant's comment concerning the fail at giving target vocabulary. It was stated that the targeted vocabulary planned to cover was not transferred to students, as there were not enough practising opportunities. The reason was attributed to the overuse of technology by LS group. All in all, LS group asserted to make another comprehensive change in lesson plan. The changes could be summarized as follows:

- Changing the content of the song planned for the presentation,
- Presenting vocabulary with flashcards and planning practise activities,
- Giving clear instructions for each activity,
- Making minor changes in the Narrative activity planned for the practise session to prevent learner passivity,
- Adding another activity for the practice session to enable student creativity,
- Doing the worksheet in pairs in order to promote interaction and peer correction,
- Changing the positioning of the teacher in the classroom frequently to hold the attention of the learners.
- Replanning the game arranged to practice the structure.

Post lesson discussion ended with the scheduling of the second RL planning meeting planned for a date a week after.

3.6.5. Research Lesson 2

LS group members all participated in the lesson-planning meeting for the second RL together with the outside observer and the researcher at the time of scheduling. Although the purpose of the meeting was to discuss about the planning of the second RL, the group reviewed the discussion points and decisions taken in the post lesson discussion of the first RL for the purpose of forming a basis for an extensive discussion of the planning.

Although the group discussed about making major changes in the lesson plan during the post lesson discussion after the first RL because of not being able to implement the RL as planned, it was agreed that the biggest obstacle was time constraint. Therefore, it was thought that the content of the RL was too intensive to teach in one class hour and it

was necessary to reduce the number of activities planned to cover in the lesson or to make slight changes in the cores of the activities in order to reduce the time spent for each and reconsider the time allocated for each activity on the basis of the previous lesson observation data. As the group thought that making major changes would require extra time and effort and generate further constraints, it was decided to make minor changes in the structures of the activity to make it easier to implement, clearer to understand. In other words, the reason behind why the lesson did not flow as planned was found to be related to contribute to the certain problems in the contents of the activity which resulted in confusion on the part of the students. Therefore, the activities extended the time planned for each activity. In this sense, it was decided that the new RL should not include new activities except for the changes in the time planned allocated for each activity.

First of all, all LS group members agreed that the song used to present the target vocabulary after the warm up activity was not clear to understand as it was streaming too fast. Therefore, the students couldn't get the target vocabulary and transfer it to the following activity for which the students were distributed handouts involving target lexical chunks and expected to match them with the pictures. As a result, the time lengthened out for both activities and had negative impact in on the following activities. In this sense, the group discussed changing the song with another one but couldn't find an appropriate one for the group of learners. The solution was stemming the video speed and adding subtitle and a group member took the responsibility for the following RL. At the same time, the group insisted to practice the target vocabulary through repetition after the video as to decrease the time spent for the following worksheet.

Later on, the group tackled with the technical problems faced during the application of Power Point presentation prepared by the group to introduce the structure. It was seen that the problem was caused by program incompatibility and one group member indicated that he could fix the problem and make it ready for the next application. The following activity which was prepared to practice the structure named as "quiz show" was excluded from the plan as it was time-consuming the time too much and causing disruptive behaviour. The group thought that the following worksheet activity was planned to be used for would serve the same purpose and would give more reliable results about whether the learners comprehended the structure or not and removing one activity would allow implementing the RL more effectively.

Towards the end of the discussion, the group members dealt with the changes in the application of the game that was used at the end of the RL for practicing core lesson

objectives including vocabulary and structure. All participants including the researcher and outside observer agreed that the game was quite fun and engaging for the students. However, the problem was that the implementation of the game was consuming much more time compared to the other activities as it required organization of groups and designing the class and RL teachers couldn't finish the game in time in the previous applications. There were two options to solve the problem; changing the activity with another one or making minor changes in the structure of the existing activity. The group decided to try the game again with some changes to make it less time consuming and more effective by causing with less disruptive behaviour and chaos.

When the initial lesson discussion for the second RL was over, the plan was rewritten immediately as it did not include major changes and the tasks concerning the changes in the materials and activities were distributed. One group member volunteered to conduct the next RL. After a brief discussion about on where to conduct the lesson, the group expressed their demands preference to apply it atfor a school located in a disadvantaged area in order to see if there is a relationship between socio economic background and student engagement and if so, whether it is possible to apply the RL effectively in parallel with the overarching goal as in the previous applications. As a result, it was agreed to practice the next RL located in a suburb area.

The second part of the discussion covered the literature concerning questioning strategies since there were some observational data about asking similar questions to the similar students and limited waiting time for the questions addressed in the previous RL. The researcher brought some articles about effective questioning in the classroom and they were reviewed all together. The group was informed about question types, ideal waiting time for the responses, what types of questions to direct for each proficiency level and how to provide feedback. As LS group was not familiar with the students of the following RL classroom, it was agreed that the teacher will assume students sitting in front as high achievers, those seated in the middle as average achievers and the ones sitting at the back as low achievers and address different types of questions for each group. It was also decided that the teacher would pay attention to waiting time and providing feedback after posing questions. The meeting ended with the scheduling of the second RL.

The researcher contacted to with the school administration a week before the application in order to arrange a proper day and time for the RL. The group met at RL school an hour before the application. The school principal was visited by the researcher

and research ethics committee approval and research permission given by the Directorate of National Education were submitted. The group informed all the teachers at school about the RL in the teachers' room and invited them all and school administration to the RL. Except English language teacher, the others turned down the offer as they had classes to teach. RL teacher entered the classroom during the break time in order to make arrangements. The group got into the classroom with the English teacher and RL teacher informed the students about the application in the native language since they seemed puzzled. Later on, the group members placed themselves for the observation. Each participant observed a specific group of students as planned before to be able to collect data about all student learning. Therefore, they tried to find a proper place close to the students planned to be observed considering with extra care not to interrupt them during the instruction. The RL teacher set the start for the application when he ensured that everything was ready. The lesson was motivating and engaging in parallel with the overarching goal. It was observed by the LS group in detail for the discussion in the following meetings. RL ended with the students' feedback about the application. When the RL was over, the group came together in the teachers' room as in the previous applications in order to decide on the meeting calendar for the post lesson discussion and it was agreed to conduct it the day after.

The group gathered at the meeting room for the post lesson discussion with the collected data to discuss about the RL effectiveness. As it is done before, the discussion started with the reflection of the RL teacher concerning the flow of the instruction, what worked as planned, what went wrong and what could be done for the next RL.

The teacher first expressed his appreciation to the LS group for the experience as it provided a valuable opportunity for individual professional development. He also stated that he was biased towards the school and students because of the socio-economic background of the learners and their academic achievement level as the school was located in a suburb and his prejudice was confirmed partially. He supported his idea claiming that the number of high achiever students was quite few in the classroom so, that he had to conduct the classroom in the native language although he tried hard to use target language for the instructions at the beginning and he realized that he would not be able to cover lesson plan because of the time constraint and switched to the native language. He realized that the target vocabulary was not transmitted to the students as planned when he reviewed the relevant worksheet although substantial amount of time was allocated to it. Additionally, the teacher commented that he did not pay attention to

questioning and questioning strategies because of the time constraint and other LS group members expressed that he preferred to ask display questions more often, forwarded them to a specific group of learners who were impulsive and they responded to the questions forwarded by the teacher in short chunks, not in full sentences and mostly in chorus. The RL teacher attributed them to the flow of the lesson and he expressed that he did not interrupt the flow by actually reflecting on choosing among different question types and different students for the answers. A group member asked if it was possible to give instructions to the students at the beginning of the activity, for example, about how to answer the questions by raising hand as an example. She also stated that responding the questions in chorus led to disruptive behaviours among students and it seemed as if the teacher lost the control. The RL teacher expressed that he was also aware of the situation and accepted that it would have been better if the students had been instructed about what to do when responding questions and recorded the feedback.

Later on, the group members questioned to give instructions in the native language for all activities depending on RL teacher's reflections and asked if it could have been possible to give them in the target language with a simple language and the teacher added to his previous comment that it would have been possible but the students were anxious because of the existence presence of the LS group so, he chose to give instructions in the native language as to make the students feel more comfortable since the group including the RL teacher knew that the students were instructed in the native language during their regular English lessons.

In fact, all group members realized that the RL moved away from obtaining lesson goals objectives while making certain changes in the content to obtain overarching goal and avoid the constraints that had been experienced in the previous RLs by reducing the content. When the walkthrough checklists were reviewed, it was seen that although consistent focus, fun and excitement, positive body language towards the lesson were very high, verbal participation of students which could be considered as the clear indicator if the learners obtained lesson objectives or not was very limited. Some group members also added that those students interviewed for the effectiveness of the RL could not answer the question about what they learned from the RL although almost all of them stated that they found the lesson quite fun and enjoying. They all contributed attributed the present problem faced to the time constraint experienced in the previous applications and simplifying the content to save time as a result. The researcher offered to sacrifice from the game that was applied through the end of the RL in order to add further practice

activities for the lesson objectives but the offer was immediately turned down by the participants as it contributed greatly to the attainment of the research focus. Everybody agreed that the target vocabulary and structure must be strengthened until before the game is presented and the learners must use them consciously to produce during the implementation of the game activity. Therefore, it was decided that the RL should serve to increase verbal production of the students as well as motivation and engagement and it needed to undergo major alterations again without considering time constraint to obtain both lesson objectives and overarching goal. Instead of reducing the number of activities in the RL, the group came to an agreement to reduce the lesson objectives. Originally, the core lesson objective was giving simple suggestions using “should and shouldn’t” within the theme of protecting the world and the unit included a number of functions to obtain. However, it was seen that it was improbable to cover them in one RL and thus the objectives needed to be limited to an attainable level.

When the general discussion was over about the flow of the RL, the group the group looked over each step of the lesson discussing from the very beginning and observed nothing wrong with the warm up activity. The following activity which presented the structure was discussed in detail and the group came to an agreement that the activity worked well after the modifications in the video stream but as a response to one of the participant’s suggestion, expressed to include a following activity that the learners could speak up to practice the structure since there was nothing wrong with the input provided. In this sense, the group agreed to include a pronunciation activity after the video was demonstrated second time in order to consolidate target vocabulary. For the following worksheet activity, the group determined decided to make minor changes in the content. The worksheet required to match the target lexical chunks with the pictures but the participants changed it in a way that the learners will choose the lexical items from the box given and write them under the correct pictures. The reason behind this change was that as the group assumed that it would strengthen the retention of those target vocabulary. The group then argued the possibility of adding another vocabulary activity and suggested a variety of activities but they had to postpone it for the later discussions as they faced with many constraints because of the difficulty of implementation caused by many factors such as smart board impracticality and time constraint.

The following narrative activity which was used to present the structure was analysed at length and it was decided that the content should be simplified as to make it consistent with the previous worksheet activity on the basis of the collected observation data

presenting indicated that some students couldn't get what was presented because of the some unfamiliar lexical items. While arguing an about another activity to practice the structure, one of the group members stated that the learners were provided with lots of input but they did not have enough opportunities to practice it in the previous RL and he suggested to benefit from utilizing classroom dynamics in the following RL by asking questions to the students as much as possible for the practice instead of preparing another activity since he thought that they would face with time constraint again. And some of the participants shared the same thoughts as well agreed and the topic was delayed to be discussed in the lesson planning meeting for the third RL.

LS group, later on, examined the second worksheets activity done by the students all together and it was seen that the students attained the structure but there was something wrong with the target vocabulary as they couldn't combine conflate the target vocabulary with the structure. One of the participants stated that it was impossible to obtain data from the worksheets which worksheets which all the students gave correct answers and the researcher informed her that the purpose of these RLs were not to conduct a perfect lesson but to reach the overarching goal as much as possible while realizing lesson objectives. In this sense, the possible reasons were discussed in detail contributed to the problems because of not being able to present target vocabulary as discussed before.

Through the end of the discussion, the group reviewed the time spent on each activity and all agreed that except for the game activity which exceeded the allocated time seven or eight minutes, more nothing seemed wrong with the other activities. Therefore, the group concentrated on the game activity once more. It was argued that although the activity was planned as group work, each individual student was allocated time. As a result, it was claimed that the problem was caused by disorganization of groups. The group went over the related literature about the organization of groups and it was decided to reduce the number of groups by increasing the number of group members.

The meeting ended with the reviewing of the discussion notes and distribution of responsibilities for the changes discussed for the activities. Lesson planning meeting for the third RL was scheduled two weeks later and the meeting was finalized.

3.6.6. Research Lesson 3

The group came together for lesson planning meeting for the third RL on scheduled day and time. The previous discussion notes concerning second RL were reviewed all

together. Although the second RL was conducted with minor changes compared to the first RL as it was argued that the troubles were caused mainly by the time constraint, it was seen that the lesson moved away from core lesson objectives as mentioned before. As a result, on the basis of the post lesson discussion of the second RL, the new lesson had some major changes in the original plan.

As having been agreed before, the lesson was planned to start with a warm up activity and continue with a song that aimed to present target lexical items. As distinct from the previous RL, a pronunciation activity was added to the lesson plan following the song in order to increase retrieval. Later on, the learners were planned to be distributed a worksheet in which they were going to match target vocabulary structures with the pictures. Although all group members complained about time constraint and the intensity of the lesson plan, they agreed to spend further time on vocabulary activities since they assumed that the learners would better retrieve the lexical items when they need during the practice activities if they practice them. In this sense, another vocabulary activity that is easy to apply for the teacher and effective in learning for the students was discussed at length. and it was agreed to organize a matching activity in which that the students were going to choose lexical items written on cards from a bowl brought into the classroom and match them with correct pictures provided on the smartboard was organised. However, the group talked in detail about the size of the cards and the applicability of the activity as they faced with certain constraints while implementing a similar activity in the pilot study and took necessary precautions not to experience them again. It was decided to print out the pictures in an average size and stick them on the board and thus it was stated hoped that the extensive use of technology and the driven technical troubles would be restricted a little bit.

The target structure was planned out to be presented with a narrative activity as in the previous RLs and the activity was going to be used as it was with a few minor changes by such as changing certain lexical items as they caused to prevent confusion because of using two different lexicons with the same meaning. For the purpose of practising the structure, another activity was included in the plan that the selected students had to choose a card giving a situation about the structure with pictures under and expected to give correct response using the lexicon and target structure while showing the cards to the students.

Following the narrative and practice activity, the application of the game was dealt extensively as it was the activity which exceeded the planned time most although the

game was discussed at length in the previous meetings and the problem couldn't be solved in the applications. It was seen in the previous application that although the activity was planned as group work activity and the success was rated depending on group performance, the task was given to each individual student as to engage all students into the activity. However, it was observed that it was not necessary to consider individual performance since the tasks were performed in group members all together which resulted in the loss of valuable class time. In this respect, it was agreed to divide the class into three groups and distribute four papers for each group to carry out the task collaboratively. As a result, it was assumed that the activity would finish in time. One of the participants reflected on the difficulty of assigning roles for the members in each group as each group assumed to be consisted of eight to ten students. The other participants shared the same concern stating that it would be impossible to find roles for each member in the group. After a brief argument, it was agreed that the group work stimulates cooperation and collaboration among students and leads to peer learning on the basis of the relevant literature reviewed before and thus the RL teacher will choose only the group leaders on the basis of his/her observation during the instruction and leave the tasks to the responsibility of them.

The meeting went further with the discussion of the dynamic nature of the classroom and some participants stated that it is impossible to follow the lesson plan as it is and there must be some room for the creativity of the teacher during the instruction. In this sense, it was agreed that the teacher may make changes in the application of the activities depending on the context and that the teacher should use the lesson plan as a guide.

Later on, the discussion centred on the distribution of tasks for each activity and LS group members shared the responsibilities such as preparation of cards and pictures to be used in the classroom, editing and adjustments of smartboard activities etc.

Since the main obstacle in the previous applications was time constraint, the group reviewed each activity with the time planned for each on the basis of the collected observation data of the previous RLs. While reviewing each activity, the group also discussed the organization of each activity in detail with the help of the researcher. However, a group member stated that the planned lesson included a lot of input through the use of variety of activities as in the first RL and this could result in similar constraints because of the intensive content tried to be covered in one class hour. The following research RL also insisted to change the order of two activities as she assumed it would be

more logical. After a brief discussion the group agreed to try the application as discussed by the group members and offered suggested by the teacher and see the results.

When the discussion was over about the content of the RL, the group was asked where to apply the RL and it was decided to implement the following RL in a school located in a suburb area as in the previous application to see if the discussion over the content and the taken decisions would serve the purpose since the students were assumed to have similar academic achievement level and background knowledge.

Through the end of the meeting, the group agreed to meet a day before the application for a demo lesson as in the previous applications with all planned materials and lesson plan ready to be used in the RL. The teacher was reminded to take questioning strategies, waiting time for the responses and unwilling students into consideration during the application if possible, by the researcher and other group members since they were going to be observing them during the course of the instruction.

As planned before, the group met one day before the application for the demo lesson. First of all, the materials that were prepared by the group members were checked to see if everything was arranged as planned. Later on, demo lesson was conducted by the teacher and the others observed all together. The researcher told the group members to observe the flow of the activities, the transitions between the activities and the time spent for each activity while watching demo lesson. When the demo lesson was over, all group members agreed that the RL was ready to apply and the group left the meeting room deciding to meet at research school one hour before the application.

LS group came together at the research school on the scheduled day and time. First of all, school principal was visited and he was informed about the research with the relevant documents about the RL and research approval as in the previous applications. Later on, the principal introduced the group to the teachers working at school and one of the group members informed the teachers about LS process and the planned RL briefly. The teachers and the management staff were invited to the application and requested to contribute the process with their observations. The principal and English teacher attended the RL but they had to leave early because of their administrative duties.

Although the school was located in a suburb area and smaller in size than the previous application schools, the learning environment of the research classroom was proper for an effective instruction because of the physical structure of the classroom which allowed enough space for the group work activities and technology use and the number of students attending the lesson enabled observing and collecting data about each concern. In this

respect, the RL teacher was able to manage the classroom comfortably while the other group members were collecting data without interrupting the students. After the implementation of the RL, the group came together in the teachers' room to decide on the scheduling of post RL discussion. It which was planned a day after in order to organize collected data and think of the critical moments occurred during the lesson and reflect on them to discuss the other day.

Post lesson discussion was conducted with the participation of LS group, the researcher and outside observer as in the previous post lesson discussions. The meeting started with the RL teacher's reflections about the lesson she conducted as and proceeded with the participating members' comments about each step of the lesson from the beginning to the end on the basis of their observation notes and reflections.

The teacher commented that the students seemed anxious and worried when they saw the group in the classroom at the beginning of the RL and she told the purpose of the lesson in the native language as to relieve tension and anxiety as soon as possible. She told that she struggled hard to give the instructions in the target language using very simple language, mimicry, gestures and even tone of voice as advised in the lesson planning but she observed that the learners couldn't manage warm-up activity because of not understanding the language of the instruction and thus she had to switch to the native tongue before applying the same activity for the second time in order to meet the requirements of the activity. However, the students were still unwilling to participate in the activity even though the teacher stated that she tried really hard to incorporate students in the activity. The researcher brought the situation into question and asked the participants' reflection and comments about the issue. The RL teacher stated that the students seemed to question the rationale behind the activity while one of the participants attributed the matter to the emotional and psychological considerations. Another group member commented on the basis of the student interview data that the students were not used to such activities as implemented in RL which were planned to address all student types with visually, aurally and kinesthetically rich content since their English teacher generally conducted English lessons with traditional teaching methods. The common idea among the group members was that the students were generally unwilling to participate in the first activities but participating and their engagement increased in the following activities. The researcher asked suggested to change ice breaking activity and questioned the its appropriateness of the activity for the learner group but the participants rejected the offer as they observed that the activity had worked well in the previous applications.

The outside observer stated that the issue could result from the class size that was much smaller than the previous applications and the students may have felt defenceless and embarrassed. After a further discussion on the issue, it was agreed that there was nothing wrong with the activity since the students had to mimic the activity shown on the screen only and the reason of disengagement was attributed to the personal and psychological aspects of the students, nervousness caused by the existence of observers and the students' unfamiliarity with such activities.

For the following activity that was used to present target vocabulary and structure, LS group drew attention to the instruction given in the target language because they noticed that the students were all puzzled when it was stated. RL teacher reflected that the activity required learner to watch the video presented and listen to the teacher instruction and it was not necessary to apply the native language, as the students were able to manage it. The group agreed with the RL teacher comments and passed on to the next discussion topic that was the intensity of the content.

Although the intensity of the content was discussed in the previous post lesson discussions and the activity number was decreased in order not to overwhelm students with the input, it was observed that the lesson was still intensive because of the new activities that were planned to strengthen key lexicon. In this sense, the teacher had to rush to cover all the activities planned. The group asserted that the transitions between the activities were quite smooth and did not cause any confusion but the number of activities devoted to the attainment of the key vocabulary was more than the ideal as they were serving for the same purpose.

Another important issue observed by almost all group members was that it was planned not to collect worksheet distributed when the students finished was not a very good idea since it was thought it would contribute to the vocabulary learning but the students were still dealing with the worksheet during the implementation of working on it even after the next activity started. The RL teacher also observed it and warned the students not to deal with the worksheet a few times but some of them went on working on it and missed the following activity as they did not listen to the instruction.

Furthermore, time was not managed effectively since the last two activities were applied carried out superficially because of the time constraint. The RL teacher expressed that there was not enough time for both activities when she checked the time and she had to make a sacrifice on one of the activities and s/he chose the previous one as the game

had been quite fun and engaging in the previous applications. S/he further reflected the importance of managing the time effectively during teaching in her comments.

One of the LS group members stated that s/he applied the same RL in his practicum by simplifying the content on the basis of his/her observations of the previous RL and group members' reflections. S/he further expressed that s/he conducted the class skillfully and was able to cover the planned content and advised to reduce the number of activities in the plan at to a manageable level.

Similarly, the researcher and the outside observer emphasized the over intensive content in the RL on the basis of their observation notes which resulted in teacher centred instruction naturally although the one of the core LS objectives was to implementing a student centred RL. A group member reflected that over intensive content did not allow for thinking of questioning strategies, giving enough time to the students for the responses and figuring out strategies for responding strategies to the students' responses answers as the teacher had to rush for covering content. In this sense, the group reviewed their observation notes again in order to examine the effectiveness of the activities implemented and almost all of them agreed that the song used at the beginning of the lesson to introduce the context and the target vocabulary did not create the expected impact since the students seemed disinterested and indifferent towards it. As a result, the group elaborated on possible activities to introduce the theme and came up with bright ideas. Overall, the group agreed on simplifying the content for the next RL and the researcher postponed the discussion on next RL content and activities to the following lesson planning meeting.

On the basis of the data obtained from student engagement checklist, it was observed that half of the students engaged in the RL roughly partially and one participant attributed the result to the learner differences as she observed that most of the students were able to carry out the tasks the research teacher assigned but were unwilling to participate in the activities. Consistent focus was high during the instruction but engagement was observed at a moderate or low level in group members' observation checklist. At the same time, verbal participation and student confidence were recorded as low by the group that provided consistent data with the comment above. The comment was approved by the group members and it was decided to check worksheets done by the students since they were planned as the assessment of student learning. The data collected from students' worksheet revealed correlating results with the reflection of the participant but also it was

decided to make some slight changes in the structure of the worksheets to make it more reliable.

Through the end of the discussion the RL teacher reflected that nothing happened as planned during the instruction as s/he had expected before and s/he went between losing and managing the control because of the dynamic and unpredictable nature of the classroom. S/he further stated that time constraint, learner type and over intensive content left him/ her helpless most of the time although everything had been planned perfectly.

The group also elaborated on the effect of socio-economic background on the students' readiness level, class performance and success rate as they observed that there were significant differences between the first two applications which were conducted in schools with high socio-economic status and the last two with low status.

In fact, it was planned to end the RLs with the third application but it was observed and decided that a new RL was necessary with certain changes in the lesson planning and apply it at a school where the students came from a variety of socio-economic backgrounds on the basis of post lesson discussion notes. In this sense, the meeting ended with the scheduling of the lesson planning meeting for the fourth application with the researcher advice to the group to review present discussion issues and reflect on how to create a near perfect lesson that was consistent with overarching goal and core lesson objectives.

3.6.7. Research Lesson 4

The group gathered for the lesson planning meeting in the meeting room on the scheduled day and time. The main theme of the lesson planning discussion was reducing the RL content to overcome time constraint by realizing overarching goal and relevant core lesson objectives on the basis of post lesson discussion records of the previous RL. Although certain changes were made by replacing the activities with others or simplifying their structure in the previous RL plannings, the planned activities exceeded one class period in each application and the RL did not fulfill their objectives. In this respect, it was decided to make an extensive modification in the lesson planning by reducing the number of activities instead of replacing them with another one or changing their structure and limiting lesson objectives at an attainable level.

The group started the discussion by questioning the effectiveness of warm up activity as it was thought that most of the students escaped from participating in the activity

especially at schools with low socio-economic surroundings because of the affective considerations and personality factors, and thus the group decided to exclude the activity from the following RL plan.

Then, the group addressed to the song used to introduce the theme “saving the planet”. Even though the song was subjected to certain technical regulations in the previous applications for the purpose of making it more understandable for the students, it did not provide the expected impact on the students because of certain technical difficulties. Additionally, the group had questioned its efficiency in the previous meetings but it had been decided to try it again once more in each application with the modifications afore mentioned. As a result, the group collectively agreed to exclude the song from the plan as in the warm up activity and they decided to set the stage for the lesson with a picture of the world on the smartboard and relevant questions in order to save time.

As it was observed in the previous lesson and discussed extensively in the post lesson discussion that the flashcards worked quite well to present target lexical items, the same flashcards were decided to be used in the following RL with minor changes in a few of them to make them more understandable for the students. In order to enhance retrieval of those lexical items and strengthen correct pronunciation, it was decided to spend some time on the pronunciation activity.

For the presentation of the structure, the group agreed to use the same activity as in the previous applications since they did not encounter and record any troubles hampering students’ engagement and motivation. To practice the structure instructed, the group settled upon implementing an activity that had been practiced in the pilot study and first application but excluded from the plan because of the time constraint although it was quite motivating and engaging for the students because of its game-like nature and technologically enhanced structure.

There were two worksheet activities used in the previous RLs. One of them was used for practising vocabulary and the other one was implemented to practise the structure. On the basis of the post lesson discussion notes of the third RL, the group united them because of the time constraint and planned to use it as data to evaluate student learning.

The group did not make any changes in the last activity and used the game as in the previous applications as it resulted in high student engagement and motivation and corresponded to the assumed objective which was producing target vocabulary and structure in a stress-free environment. Although the group members questioned its

objective and appropriateness in the previous post lesson discussion because of the time spent on it, it was decided to reuse the activity because of its funny and engaging content.

Through the end of the discussion, the group argued about the approximate time duration that would be spent on each activity and discussed about the possibility of implementing the RL successfully without being constrained by the time. All group members stated that the RL had significant change in terms of the number of activities and core lesson objectives and they were hopeful for an effective RL implementation.

The outside observer emphasized the importance of giving clear and understandable instructions as he observed in the previous applications that the students were not aware of the transitions between the activities because of the poor instructions given and he strongly advised to the following RL teacher to give necessary attention to provide simple and clear instructions for each activity and in the native language if necessary.

The meeting ended with the distribution of the tasks and changes to make in the structure of the activities among the group members and scheduling of the next lesson planning meeting to check lesson plan content and classroom materials that were going to be used in the application.

The second meeting started with the review of the lesson plan prepared on the basis of the decisions taken in the first lesson planning meeting. The group dwelt on each step and activity in detail in the lesson plan.

Instead of beginning the lesson with a video, it was decided to set the stage with a picture of the earth or moving graphical image since it was observed that the video had passivized the students, hindered teacher's creativity and freedom and wasted valuable class time. The plan was to focus students' attention and stimulate background knowledge through the image and the RL teacher would shape the lesson through questions and answers while giving the structure implicitly. As technical constraints were experienced in the previous RLs, the group clarified preferred to have the digital image in different formats not to experience it again.

For a smooth transition, it was planned to proceed to the next activity which the RL teacher presented the target lexicon through flashcards that was assumed to be closely connected to the question and answer exchange in the warm up activity. Also, it was agreed to write the theme (saving the planet) as a heading on the board before presenting the flashcards in order to prevent confusion. While reviewing the vocabulary activity, expected anticipated student reactions and teacher responses were also discussed in detail as written in the lesson plan. As discussed in the previous meeting, a pronunciation

activity was planned immediately after the vocabulary activity. One of the members asked to repeat the target lexical chunks only or whole sentences and the other members suggested repeating the chunks only as it would cause difficulty for the students to repeat the whole sentence and that may lead to noise in the classroom when the students repeat in chorus.

The following activity which was prepared to present target structure was planned to be used without any changes as agreed before since the group member observed nothing wrong with it in the previous applications. The group just discussed about possible student reactions towards the activity and teachers' responses as written in the plan.

As it was discussed and agreed in the previous meeting, the activity that was used in the first two RLs was included in the lesson plan again to practice the structure since it provided a smooth transition. However, the group had observed some technical problems in the previous applications because of the incompatibility. One of the group members who prepared the activity assured to solve the problem and make it ready for the next application. It was also decided to check the activity on a smartboard in order to not to face with constraint during the application.

The following worksheet activity which was planned both to practice target vocabulary and structure was examined in detail since the worksheet provided valuable data to test student learning and it was observed that one item was out of the scope of the RL content and it was replaced with another one.

For the last activity, the group talked about the organization of groups and giving instruction and it was thought to give the instruction in the native language for the activity since giving the instruction in the target language would cause confusion on the part of the students and lead to chaos in the classroom if they did not understand what to do.

As a closure, it was planned to conduct a brief feedback session with all students through questions in order to test student learning and observe if the RL reached its target objectives.

When the review of the lesson plan was over, the group checked the materials to be used in the classroom in order to assure that all of them were ready and the meeting ended after informing group members about the research school and application scheduling.

The group came together at the research school one hour before the application. The regular procedures were replicated by providing necessary research approval documents to the school management and informing the teachers and the school management about

the purpose of the research. The teachers were invited to participate in the RL as in the previous applications but they rejected because of their workload.

The RL teacher and the group members got into the classroom before the application to organize materials and check the compatibility of prepared activities with the smart board. When the group assured that nothing would go wrong, the group members took their places to observe, the bell rang and the students got into the classroom. The RL teacher gave a start by informing the students about the RL briefly in order to relieve their tension and satisfy their curiosity.

The lesson was conducted by the RL teacher as expected and written in the plan by taking the issues such as giving instructions, questioning strategies etc. discussed in the meetings into the consideration. The motivation and engagement was high during the course of the instruction as consistent with the overarching goal and any serious incident hindering the flow was not observed.

When the RL ended, the group gathered at teachers' room and it was decided to conduct post lesson discussion a day after as to allow time to reflect on the lesson and organize collected data as in the previous applications.

Post lesson discussion started with the reflections of the RL teacher as written in the LS protocol. S/he stated that the warm up activity did not create that expected outcome as s/he couldn't receive answers to the questions posed for the purpose of stimulating background knowledge. However, s/he expressed that the lesson ran smoothly later on as planned. There was high participation and engagement and s/he could observe that the student learning was at a high level since most of the students were raising their hands to answer questions posed by the teacher. S/he further expressed that s/he was obsessed with the time during the instruction because of the previous experiences associated with time constraint which restricted his/her creativity during the implementation. S/he also observed some minor problems with the worksheet content because some of the students couldn't comprehend what the given pictures were representing. At that point, the group investigated the worksheets done by the students in order to evaluate student learning and assess efficiency of the RL and it was observed that almost all of the students provided correct answers.

A few students sitting at the back row were unwilling to participate in the activities and they attracted RL teacher attention since that critical issue was discussed extensively in the previous discussions. The teacher was able to incorporate them into the lesson except one who refused to engage in the lesson although the teacher tried hard and gave

it up later as it would lead unwanted behaviour. The teacher further noticed a female student who approached him/her during the implementation of the game activity and told that she was the only female in the group. The teacher listened carefully and included her to another group by giving a definite role. S/he later observed her while working in the group and realized that she participated in the activity willingly.

When the RL teacher finished her reflections, the group members started to discuss about their observations about the RL by following from the RL plan and their observation notes under the moderatorship of the researcher.

All group members agreed that the students seemed surprised and there was a deep silence at the beginning of the RL as indicated by RL teacher also which was attributed to the presence of strangers in the classroom. After a while, it was observed that the students got through confusion and surprise and participated in the activities in a highly motivated way as expected. It was observed that all students were engaged even the ones sitting at the back rows.

The outside observer reflected that the lesson was motivating and engaging but it could have been better if the students were invited to engage in the activity themselves that was prepared to practice the structure through the use of smartboard instead of the teacher. Other than this, he commented that the lesson flowed smoothly as planned and nothing went wrong.

One of the participants stated that students in the groups were well organized and discussing the given task extensively among themselves and group leader was identified naturally from the classroom dynamics since the teacher did not assign roles for each student in the groups and leave it to them because of the large size of groups consisted of nearly ten students. Although the groups were not organized in a detailed way because of the time constraint and the students were quite willing to engage.

Generally, the group found the RL quite satisfactory on the basis of their observational data after reviewing their student engagement walkthrough checklist in which they recorded high engagement for each part and interview notes.

Through the end of the discussion it was decided that the RL reached its overarching goal and obtained core lesson objectives. The researcher restated that the aim was not creating a perfect lesson but achieving goals and objectives partially at least. He further expressed that they faced with certain constraints during the process because of the dynamic and unexpected nature of classroom which lead to the following RLs to solve them. Contrary to the previous RLs which were replanned through minor changes in the

activities, the last RL had a major change and reached its objectives as indicated by the researcher while summarizing the process. A member stated that s/he wondered about the reason of success behind the fourth RL whether it was because of the students, RL teacher, or lesson plan. The group elaborated on the question and contributed the success to the major change in the lesson plan mainly although admitted at the same time that students and RL teacher also had an undeniable role.

The meeting ended when all group members finished their reflections concerning the RL and scheduling of the focus group interview that the participants were expected to comment about LS process that they had experienced which lasted for seven months roughly by reflecting on their experiences.

3.6.8. Focus Group Interview

LS team regrouped a week after the whole intervention was over. The researcher had informed the participants to reflect on the whole process, think about the strengths and weaknesses of LS application and its impact on their professional development.

The researcher moderated the interview and started the discussion by questioning if LS intervention had an impact on their professional development.

The first participant compared LS experience with the teacher training programme he had received at the university and confessed that LS induced to focus his attention to the student learning in the classroom rather than his way of teaching. He learned to pay more attention to the learners' motivation, engagement and take their interests towards the lesson into consideration.

S/he additionally expressed that s/he was not planning such an extensive lesson plan considering expected student responses and teacher reactions against them. S/he further added that s/he learned to reflect on possible, unexpected situations that could occur during the course of the instruction before the lesson and take possible measures against them.

Another participant intervened the discussion admitting that before LS process, s/he used to adopt traditional, and teacher centred teaching style without thinking of student learning and student attainment while preparing for the lesson. S/he realized to prepare for the lesson considering each stage, warm up, presentation, practice, production respectively and choose an appropriate activity for each of them with the help of the

intervention. From his/her perspective, the most important impact was evaluating the effectiveness of the lesson by observing students, their engagement and production.

Similarly, another group member expressed that s/he was not considering what was expected of the students after a lesson was implemented, what if the students would not attain core lesson objectives before the intervention.

The researcher reminded the cyclical process in LS consisting of lesson planning meetings, RL applications and post lesson discussions in order to help them evoke what they had experienced during the process.

One of the participants admitted that s/he would have given up an activity and looked for another one without thinking of the reasons behind if the activity did not work well with the students in the classroom as planned. LS process helped him/her to question the problems encountered during the implementation of an activity, research on possible reasons and look for answers.

Another group member remarked that before LS experience, s/he used to consider an activity satisfactory if a few students (four-five) participated in it ignoring those others who were not paying attention as they were distracted by other things. LS triggered to focus her/his attention to the whole student in the classroom, observing their learning, motivation, engagement and participation. S/he further expressed that s/he felt uncomfortable when s/he observed even one student disengaged during the instruction. A participant supported the statement by saying that s/he used to observe himself/herself when s/he was instructing in the classroom but LS taught him/her to observe students and reflect on those who were distracted and question the reasons even during the course of the instruction. Similarly, another participant stated that s/he used to evaluate lesson effectiveness depending on his/her own performance. S/he learned to evaluate on the basis of his/her observation of student performance.

The same participant also put forward that course books were necessary but they were not indispensable since they did not respond to the needs of all students in the classroom. With LS intervention s/he was able to change her belief that s/he had to follow the course books as they were without any changes. S/he realized that course books were just guide and s/he could prepare better materials depending on the students' needs.

One of the participants emphasized the benefits of working in collaborative environment and expressed that LS created a collaborative environment that was based on professionalism which helped him/her plan the lesson better and much more detailed with the contributions of "others" who provided a different perspective. All participants

agreed that they benefited a lot from working in a collaborative environment as they had different beliefs and perspectives like the students in the classroom. In this respect, it was more likely to plan a lesson that could respond to the students' needs and interests.

An interesting issue was presented by a group member who expressed that LS provided vast experience that they could have after a long while in their professional life. S/he clarified his/her statement by saying that s/he realized many unexpected situations that could happen in the classroom during the instruction and they produced solutions during the applications. LS made her aware of those before s/he started his/her professional journey.

The same participant also confessed that s/he used to have implicit bias towards students' English proficiency level and thinking that they wouldn't understand if s/he conducted the classroom in the target language. With LS, s/he realized that any student whether s/he was low or high achiever could understand and communicate in English if the teacher tried really hard depending on the student's language proficiency.

The interview widened with the unique contributions of each participants' reflections. One participant underlined the importance of transitions between the activities and giving instruction. S/he expressed that s/he was not considering transitions between the different stages of the lesson before but s/he understood its importance with the experience and could even give advices for his/her friends going practicum experience. Additionally, s/he learned how to be careful while giving instructions since a minor mistake in the instruction would spoil the flow of the lesson.

Another member emphasized the valuable benefits of post lesson discussion that all group members reflected on the RL on the basis of their experiences. One participant supported it by saying that RL observations and post lesson discussions induced critical self-reflection by asking himself/herself what to do in those circumstances when unexpected critical situations occur during the course of the instruction.

All group members stated frankly that they would have joined to another LS experience if they had had another chance. One group member criticised the lack of collaborative professional teacher communities in public schools in Turkey and contributed the reason to the individualism in the workplaces in which the people are afraid of being observed critically and escape from constructive feedback. S/he further stated that s/he benefited a lot from working in a collaborative environment in LS applications.

One group member expressed that s/he still had some questions on her mind about giving feedback to the students' incorrect responses although the group read relevant literature and discussed extensively about effective feedback strategies during the interview. The researcher asked if s/he had ever reflected on the issue before LS intervention and s/he confessed that she had not thought over it. S/he realized during the interview that LS provided research based-thinking for the critical moments in the classroom that s/he had never questioned before.

One of the participants insistently wanted to take the floor and stated that one of the most significant contributions of LS experience was that group work activities were not something to be afraid of or escape from if you could organize it very carefully. S/he further stated that it was possible to organize group work activity in a few minutes if you thought about organization before and envisaged grouping the students while writing the lesson plan as they did in the applications.

The group members shared their in-depth analysis of the process and critical reflections as the scope of interview widened. One member of the group mentioned about the perception change in her towards teaching stating that s/he did not bother about the students who were unmotivated and disengaged as s/he used to evaluate lesson efficiency on the basis of majority until the intervention. S/he further explained that practicum teachers even told them not to worry about those disengaged students. S/he realized after the intervention that those students require much more attention than the others and LS triggered to focus on learning of each student.

The researcher asked the participants to compare ITE programme that they received at the university and practicum experience with LS and requested to elaborate on the similarities and differences.

One of the participants stated that s/he used to be afraid of getting into the classroom during the practicum. After LS experience, s/he felt much more confident as a teacher. All group members shared the same idea commenting that they could even help their classmates in terms of lesson planning, classroom management, time management, transitions between the activities etc. on the basis of their LS experience. Also, they were requested for advice for the lesson planning for their practicum experiences.

One participant put forward an interesting idea while comparing both ITE and LS interventions expressing that in ITE they were told to observe mentor teachers extensively and observe students commonly in practicum schools but LS required them to do the exact opposite as their observations were mainly built around students and student

learning. Another participant contributed to the comment stating that their teaching styles were shaped by the students not by the teachers that they observed during the practicum.

Additionally, the participants commented that they were able to see problems spoiling the flow of the lesson much better while observing their friends and their mentor teacher during the practicum. The same participant also focussed attention to the student centred teaching which the teacher shaped the lesson around discovery learning rather than expository teaching because of student learning-based approach in LS professional development model.

The researcher posed another question to the participants about the weaknesses of the model through the end of the interview. Generally, the participants did not observe a deficiency or weakness in the intervention. All of them agreed that LS was a valuable tool for professional development and it could be used in ITE in an efficient way. One member of the group reflected that it would be much more beneficial if the RLs were applied to the same group of students rather than implementing them in different types of learners as it would lead to collect more reliable data about the RLs and student learning.

The group reflected that LS had a profound impact on their professional development in terms of classroom management when it was compared with ITE. The group also commented that ITE programmes would have been much more beneficial if it had been reshaped around the principles of LS professional development model which is based on designing collaborative RLs focusing student learning. Furthermore, all participants expressed that LS led to the development of enthusiasm for working cooperatively and collaboratively since the participants were consulting for advice or help to each other about lesson planning for the practicum experience as they benefited a lot from working in a collaborative environment during the intervention. Also, two participants indicated that they learned how to observe students critically with the help of LS. Another participant supported the comment saying that s/he used to observe students superficially without focusing on their learning when s/he was in the classroom before the intervention.

Lastly, the group stated that they learned to reflect on themselves critically by monitoring themselves while teaching, identifying the problems encountered, analysing them and thinking of possible solutions.

The researcher asked if the participants had something to add at the end of the interview. When the participants expressed that they shared all their reflections concerning LS, focus group interview ended.

3.7. Data Collection Tools

The present qualitative multiple case study which aimed to investigate the impact of LS on the professional development of preservice ELT teachers provided large volume of data to analyse from variety of sources. These sources included transcriptions of lesson planning meetings which were categorised as unstructured meetings, post lesson discussions of each RLs which were labelled as semi-structured interviews, classroom observations kept by participants, researcher and outside observer for each RL, reflective journals written by the participants after each RL cycle, focus group interviews conducted after pilot study and whole research process and reflections written by the participants after they started their profession. In this respect, it was assumed that the research provided broader understanding of the research phenomenon since the data was triangulated from multiple data sources.

3.7.1. Unstructured Interviews

Unstructured interviews which were one of the primary sources of evidence for the present study made up of lesson planning meetings for each RL. Each meeting which lasted more than one hour approximately was video recorded and transcribed for detailed analysis.

After the decision of the overarching goal and relevant learning goals which could be regarded as the RL subject, team members discussed RL content to address the goals on the basis of the template prepared by Ertle, Chokshi, & Fernandez (2002). The discussions included background information about the goal of the RL and RL school and students, information about the unit, its goals, its sequence and relation to the curriculum, information about the unit including goal(s) of the RLs, its relation to the LS goals and process of the RL including steps of the RL with learning activities and time allocated for each, expected student responses, teacher responses to the students reactions, methods of evaluation and relevant notes (See Appendix F). Each lesson planning meeting followed the same procedure.

The team members were also informed by the researcher to plan the RL content on the basis of the following principles put forward by Cerbin (2011, p. 25).

- Prepare instructional activities that support students learning and attainment of the goal or help students overcome the learning problem.

- Practice looking at the lesson from the students' perspectives.
- Prepare learning activities that makes student thinking visible and open to observation.
- Develop a rationale for the lesson activities and sequence. Explain how and why the RL would trigger the kind of thinking you expect students to achieve.

The participants discussed RL content considering the principles written above and following issues provided in the lesson planning template in order for each RL. The researcher worked as a moderator and shaped the flow of the discussion and sometimes asked questions to the participants for the clarification in order to obtain deeper understanding. Although the meetings were video recorded, he took further observation notes especially for the issues that he reflected on during the meetings.

3.7.2. Semi Structured Interviews

Semi-structured interviews conducted after each RL were composed of post lesson discussions that LS group analysed and evaluated the effectiveness of the RLs thoroughly on the basis of the observational data.

Each post lesson discussion started with the reflections of the RL teacher as stated in the LS protocol (See Appendix E). The RL teacher commented on his/her own observations concerning student learning, constraints faced during the instruction, unexpected events and the things worked as planned etc.

The researcher's main duty during the discussions was to organizing and guiding the interview by facilitating each partner's contribution to the discussion within the scope of the following questions.

- What worked as planned during the RL?
- What didn't work as planned?
- Were there any pivotal moments surprising you that you observed during the instruction?
- Were the lesson objectives met?
- Do you think that overarching goal was obtained?
- Would you change any of the planned activities or add new ones to achieve lesson objectives better?

Each partner expressed their opinions and interpretations on the basis of their observational records, student engagement checklist, and interviews with the students. The outside observer also participated in these discussions and shared his observations and comments. The content of the discussion was guided by observation of student learning rather than RL teacher's instruction as stated in the protocol.

The discussion was video recorded and the data was transcribed as in the unstructured interviews. The researcher also kept additional observational data from the post lesson discussions in order to validate the results.

3.7.3. Classroom Observation Sheet

For each RL, the participants except RL teacher were distributed given classroom observation sheets in which they recorded their observations. The sheet included background information about the RL, lesson period, student observation and teacher notes (See Appendix I for a sample). The participants were expected to record data indicating time period and relevant activity, student observation data with regard to the activities written on the sheet and participants' reflections about them. Each participant and outside observer kept detailed observational qualitative data for each RL. The observation was done on the basis of principles written in the LS protocol.

3.7.4. Reflective Journals

LS group were requested to write reflective journals after each RL cycle which consisted of lesson planning meeting, RL and post lesson discussion. Each participant wrote four reflective entries for the first, second, third and fourth RL cycle.

The participants were asked to write about if LS process had an impact on their professional development on the basis of the themes.

- Lesson planning and implementation.
- Establishing and maintaining appropriate behaviour in class.
- Classroom management.
- Other

The data was collected regularly immediately after each RL cycle. The collected data was used to observe the impact during the process and to compare each participant to himself/herself for the purpose of investigating perception change in terms of the impact of LS if observed, and to others in order to investigate differences.

Additionally, the researcher requested from the participants to write an additional reflection a year after the intervention when the participants began their professional journey in order to investigate long term impact of the LS process. The participants were told to write their reflections within the scope of the following question.

- Has LS professional development model had an impact on your personal and professional development?

The participants were not limited by giving certain themes about the impact in attempt to collect additional data in order to validate research findings.

3.7.5. Focus Group Interviews

Two focus group interviews were conducted with the participants, one of which was implemented after the pilot study and the other one was applied after the whole research process was over. Each focus group interview lasted about an hour and each participant was given equal time to talk and present their interpretations and thoughts. The questions guiding focus group interviews were as follows.

1. Can you please comment on your LS experience?
2. What are the strengths of LS practice?
3. What are the weaknesses of LS practice?
4. Do you think that LS has had an impact on your professional development? If yes, explain how.
5. Do you think that LS has had an impact on your personal development? If yes, explain how
6. Do you think that LS has had an impact on your classroom management skills? If yes, explain in what ways
7. Which aspects of LS have been most beneficial for you?
8. What would you have changed about the process?

9. Would you participate in another LS implementation if you had opportunity?
10. Do you have any other comments you would like add about LS process?

The researcher forwarded each question to all LS group members and asked further follow up questions in order to generate ideas and obtain deeper understanding of the statement stated by the participants.

The interviews were video-recorded and the researcher took additional notes concerning the interpretations made by the participants.

3.8. Data Analysis

A large-scale amount of qualitative data was collected during the research process through a variety of data collection tools because of thanks to the nature of LS which consisted of lesson planning meetings, post lesson discussions, classroom observations, reflective journals and focus group interviews as mentioned before. After the classification of the data, the maximum attention was paid for to the transcriptions of the video recordings as each application consisted of one or two lesson planning videos which took about an hour and post lesson discussion videos. In these recordings, which the students elaborated and reflected on their experience in one and a half hour approximately.

The transcription of the videos was of vital importance and required further attention as the data was analysed with Atlas.ti Qualitative Data Analysis Software which required certain transcription formats compatible with the system. It took a considerable amount of time to transcribe the video data because of the large size of the raw data and the language of the interviews which were conducted both in the native language and English. In this sense, the data was transcribed in a traditional way by watching recorded data several times and writing on a word document what was stated or told by the participants which doubled the transcription time and effort.

Atlas.ti is a software which ease structuring large volumes of data, analyse it systematically and representing the results with diagrams and relations with the other data types. The software provides a number of tools for accomplishing the tasks associated with any systematic approach to unstructured data, i. e., data that cannot be meaningfully analysed by formal, statistical approaches as written in the software manual. Friese (2012) summarizes the functions of Atlas.ti as follows.

Software frees you from all those tasks that a machine can do much more effectively, like modifying code words and coded segments, retrieving data based on various criteria, searching for words, integrating material in one place, attaching notes and finding them again, counting the numbers of coded incidences, offering overviews at various stages of a project, and so on. (Frieze, 2012, p. 1).

After the organization of data and transcription process, the structured data was uploaded to the software, the primary documents were created and the first stage coding process started.

Computer assisted NCT (noticing-collecting-thinking) qualitative data analysis consists of two levels of analysis, descriptive level and conceptual level analysis respectively. In descriptive level analysis, the main objective is to explore the data, look through them, notice relevant things with the research questions and develop a code list which is known as first stage coding. Within this perspective, pilot study data was studied extensively by applying relevant literature and code list was created. Based on these first codes, the code list was developed further by noticing similarities and differences, merging same codes with different labels or vice versa. In this way, the code list was structured and applied to the rest of the data which is known as second stage coding. In this way, the descriptive level analysis ended and conceptual level analysis was conducted which refers to the investigation of data within the scope of research questions.

3.8.1. Validity

Validity is a blurred term in qualitative research design because of its nature which does not allow descriptive statistical analysis as in quantitative research design as stated by Miles, Huberman, & Johnny (2014). Within this perspective several authors (Wolcott, 1990; Maxwell, 1992;) recommend deep understanding of the research findings to provide and increase the trustworthiness and credibility of the study at hand (as cited by Miles, Huberman, & Johnny, 2014). Although variety of strategies have been listed to consolidate validity, the general consensus is presenting rich and thick description of the research process, and providing plausible and systematic research findings without leaving any uncertainty. In this sense, the study presented each stage of LS intervention process in detail and ensured systematic and deep analysis of the collected data through the use of an qualitative data analysis software. Additionally, for the comprehensive and

versatile understanding of the research phenomena triangulation was provided by collecting data from unstructured interviews, semi structured interviews, classroom observation sheets, reflective journals and focus group interviews. For the purpose of increasing internal validity, the researcher applied for expert opinion for each data collection tool.

3.8.2. Reliability

In qualitative research, reliability refers to the intercoder agreement on the data sets that were transcribed. In the present study, a strict reliability procedure was followed since a large volume of data was collected from variety of data sources as mentioned before.

First of all, the transcribed data was coded by the researcher on the basis of relevant literature and under the guidance of the supervisor and a structured code list was developed consisting of themes and relevant codes. The following table presents code list which was structured after two intensive coding stages.

Table 4.

The Code Book Developed by the Researcher

INTERACTION	PERSONAL DEVELOPMENT	PROFESSIONAL DEVELOPMENT	TEACHER INTERVENTIONS	THE CLASSROOM	THE LEARNER	THE LESSON	THE TEACHER
active participation of students	self-awareness	critical moments	activating schemata	classroom environment	affective considerations	Classroom language	addressing students
assigning group members	self-confidence	factors influencing learning	activity content	over crowded class	allocation of attention	Effective lesson	body language/intonation
contextualized vocabulary instruction	teacher adaptability	lack of training opportunity	activity management	physical layout	attention span	Review and consolidation	collaboration
cooperation with classmates	teacher creativity	lesson planning and implementation	attracting attention	seating arrangement	background knowledge	Setting the stage for the lesson	empathy
disengagement	teacher judgement	lesson study experience	boredom-sameness	technical problem	diversity	Time constraint	instructional style
eliciting response from students	teacher rapport	multidimensional class	checking learning and understanding		fossilization	Warm up activity	instructional style: learner centred instruction
group work	trust	perception change	classroom management		language production		lecturing
Interaction among students		plan and lesson mismatch	communication with students		misbehaviour		modelling target language behaviour
pair work		professional development	considering all students		motivation		native language use
passive learners		reflective teaching	error correction		native language use		teacher control
peer correction		research based thinking	establishing appropriate behaviour		off -task behaviour		teacher effort
peer support		theory practice gap	evaluation-observation		retention		teacher positioning during tasks
		threatening effect of LS	focus on student learning		self correction		teacher role
		traditional teaching	fun element		student engagement		technology use

traditional teaching VS lesson study	giving encouragement, feedback and praise	student involvement
	giving instructions	students' interest and attention to the activity
	giving purpose	students language proficiency level
	grading and sequencing	students needs and interests
	inductive teaching	uninterested Students
	input & intake	
	instructional strategy	
	monitoring students	
	more challenging tasks	
	motivation	
	observation of student learning	
	positive classroom atmosphere	
	questioning	
	Scaffolding	
	target language use	
	Transition	
	using board space effectively	
	using time effectively	
	visual materials	

The Table 2 clearly portrays that 105 codes were identified under seven themes namely, interaction, personal development, professional development, teacher intervention, the classroom, the teacher and the learner.

The developed code list was sent to another coder together with the transcribed data so as to assess conformity among the coders. The second coder's field of expertise was curriculum and instruction as he held MA and PHD degree in the field. S/he also held bachelor's degree in ELT field.

After the coding of the second rater, both codebooks were analysed using SPSS 23 with Cohen's Kappa Statistics which has been the most widely used Inter-coder Reliability Index in qualitative studies. Cohen's Kappa Statistics enables chance adjusted index value in research in which two raters rate items on a nominal scale. The value indicating conformity for the judgements provided by the analysis is clearly interpretable since the chance phenomenon is excluded. According to Cohen (1960) three conditions must be met before applying Cohen's Kappa Statistics. They are;

- The items that are going to be rated must be independent.
- The categories must be independent, mutually exclusive and exhaustive.
- The raters must be independent.

In order to determine statistical significance of the analysis, kappa values obtained from Cohen's statistics must be presented with corresponding standard error and hypothesis testing conducted in parallel with other statistical tests. The null hypothesis whose kappa value is presented with 0 against the alternative hypothesis that kappa is greater than 0 is measured. In this sense, rejection of null hypothesis implies that any conformity observed is statistically significant (Gisev, Bell, & Chen, 2013).

Table 5.

Interpretation of the Kappa Values (Landis & Koch, 1977)

Kappa Statistic	Strength of Agreement
< 0.00	Poor
0.00-0.20	Slight
0.21-0.40	Fair
0.41-0.60	Moderate
0.61-0.80	Substantial
0.81-1.00	Almost Perfect

Within this perspective, in the present study, Cohen's Kappa analysis was executed for the interpretations of the items obtained from the whole study consisting of one pilot study and four RLs. The analysis were conducted for each theme determined and presented for each application separately.

3.8.2.1. Intercode Reliability Analysis of "Interaction" Theme

The following table summarizes results of the Cohen's Kappa analysis for the "Interaction Theme."

Table 6.

Intercode Reliability Measures of "Interaction" Theme

	Value (Measure of agreement, Kappa)	Asymptotic Standardized Error ^a	Approximate T ^b	Approximate Significance
Pilot Study	,826	,048	18,279	,000
RL 1	,951	,027	19,847	,000
RL 2	,808	,069	10,544	,000
RL 3	,849	,068	9,335	,000
RL 4	,842	,058	11,999	,000
Focus Group Interview	-	-	-	-
Post App Reflection	-	-	-	-

Symmetric Measures

- a. Not assuming the null hypothesis.
- b. Using the asymptotic standard error assuming the null hypothesis.

The table clearly presents that the degree of agreement is almost perfect for the first five applications as implied by Kappa values on the basis of Landis and Koch's (1977) reference list and the conformity is significant since the approximate significance value is < 0.5 . For focus group interview and post application reflection sheets kappa statistical analysis were not conducted since the number the variables and their frequency were not adequate for a reliable and independent analysis. In this sense, two raters established the agreement through discussion and a total conformity was provided. Although the agreement obtained in the first five applications was high in value, the raters came together to discuss about the disagreements and reached a consensus in their interpretation for the purpose of reaching higher level of agreement. As a result, the number of codes

assigned by the researcher that was twelve in the theme at the beginning reduced to six. The reorganization of the codes under the “interaction” theme could be listed as follows:

- Two of the codes “assigning group members” and “eliciting response from students” were restructured under the theme of “teacher intervention”.
- “Contextualized vocabulary instruction” code was removed from the theme as its frequency was quite low and it was agreed that it was not critical to investigate for the research scope.
- The codes labelled as disengagement and passive learners were merged under the code name “disengagement” as a result of joint decision since it was agreed that the quotations coded with these labels refer to the similar concepts.
- The codes named as “pair-work” and “group-work” were merged under the code label “working in groups and pairs”.
- The codes “peer correction” and “peer support” were merged under the code name “peer support”.

In that way, a close consensus in the theme was established between the two raters. The following table presents the codes in the “interaction theme” after intercoder reliability analysis.

Table 7.

Reorganization of Codebook for the “Interaction” Theme

INTERACTION
interaction: active participation of students
interaction: cooperation with classmates
interaction: disengagement
interaction: working in groups and pairs
interaction: interaction among students
interaction: peer support

3.8.2.2. Intercoder Reliability Analysis of “Personal Development” Theme

In the following table, Cohen’s kappa statistics were displayed for the theme of personal development.

Table 8.

Intercoder Reliability Measures of “Personal Development” Theme

	Value (Measure of agreement, Kappa)	Asymptotic Standardized Error^a	Approximate T^b	Approximate Significance
Pilot Study	,884	,027	20,778	,000
RL 1	,788	,036	16,515	,000
RL 2	,674	,051	10,600	,000
RL 3	,717	,050	12,110	,000
RL 4	,760	,102	7,408	,000
Focus Group Interview	,737	,092	7,879	,000
Post App Reflection	,677	,090	8,280	,000

Symmetric Measures

a. Not assuming the null hypothesis.

b. Using the asymptotic standard error assuming the null hypothesis.

The table presents that except pilot study in which the conformity is almost perfect, the agreement is substantial according to Landis and Koch's (1977) reference list in the following applications. It was observed that the most of the disagreement result from the differences in the interpretation of quotations that were labelled as “teacher adaptability” and “teacher judgement”. The raters reanalyzed those quotations in detail and made changes where necessary. As a result, a total harmony was attained for both labels by the two raters. Additionally, it was decided to remove the label that was coded as “trust” from the theme since its total frequency of use is a lot fewer than the other codes. The table below presents the codes in the “personal development” theme after intercoder reliability analysis.

Table 9.

Reorganization of Codebook for the “Personal Development” Theme

PERSONAL DEVELOPMENT
personal development: self-awareness
personal development: self-confidence
personal development: teacher adaptability
personal development: teacher creativity
personal development: teacher judgement
personal development: teacher rapport

3.8.2.3. Inter-coder Reliability Analysis of “Professional Development” Theme

The following table illustrates the results of the Cohen’s kappa analysis of “professional development” theme.

Table 10.

Inter-coder Reliability Measures of “Professional Development” Theme

	Value (Measure of agreement, Kappa)	Asymptotic Standardized Error ^a	Approximate T ^b	Approximate Significance
Pilot Study	,860	,053	16,151	,000
RL 1	,940	,033	17,226	,000
RL 2	,864	,089	8,203	,000
RL 3	,801	,079	11,348	,000
RL 4	,763	,090	7,555	,000
Focus Group Interview	,770	,058	14,111	,000
Post App Reflection	,750	,052	16,997	,000

Symmetric Measures

a. Not assuming the null hypothesis.

b. Using the asymptotic standard error assuming the null hypothesis.

The table explicitly displays that the inter-coder reliability analysis using Kappa statistic is significant because the approximate significance value is, 000. in each application. According to the table, the agreement is almost perfect in the first three applications on the basis of Landis and Koch’s (1977) reference list. However, the

conformity is substantial in the following four applications. Therefore, the raters investigated the issues where the disagreements were observed and discussed about them to agree on a common ground. As a result, the following arrangements were made in order to obtain higher degree of conformity.

- The code labelled as “plan and lesson mismatch” and “lesson planning and implementation” were shifted under “the lesson” theme.
- The codes “lack of training opportunity” and “theory-practice gap” were merged with a new code label named as “theory-practice.
- The code “factors influencing learning” was removed from the theme because of its reference with one quotation only.
- The code label “collaboration” which was included under the scope of “the teacher” theme was moved to professional development theme as it was thought that the cases were more related with the professional development of teachers.
- The code “focus on student learning” that was originally planned under teacher intervention theme by the researcher was transferred to professional development theme on the basis of mutual agreement.

Additionally, the second rater suggested to merge certain codes under one main label but it was agreed to analyze each of them separately as it would lead meaning loss in the interpretation of the data. As a result, a mutual agreement in the interpretation of the quotations was established between the two raters. The following table presents the codes in the “professional development” after intercoder reliability analysis.

Table 11.

Reorganization of Codebook for the “Professional Development” Theme

	Value (Measure of agreement, Kappa)	Asymptotic Standardized Error ^a	Approximate T ^b	Approximate Significance
Pilot Study	,905	,021	48,531	,000
RL 1	,886	,019	61,247	,000
RL 2	,857	,025	49,716	,000
RL 3	,816	,032	37,496	,000
RL 4	,826	,035	33,834	,000
Focus Group	,817	,095	9,417	,000
Interview				
Post App	,789	,083	13,561	,000
Reflection				

3.8.2.4. Intercode Reliability Analysis of “Teacher Interventions” Theme

The theme is the most comprehensive theme when compared to the others since it included 33 code labels attached to 839 quotations in the first codebook developed by the researcher. The intercode agreement is higher in the theme in comparison to the other six themes. The following table represents the Kappa statistics for “teacher interventions” theme.

Table 12.

Intercode Reliability Measures of “Teacher Interventions” Theme

PROFESSIONAL DEVELOPMENT
professional development: collaboration
professional development: critical moments
professional development: focus on student learning
professional development: lesson study experience
professional development: multidimensional class
professional development: perception change
professional development: professional development
professional development: reflective teaching
professional development: research based thinking
professional development: theory-practice
professional development: threatening effect of LS
professional development: traditional teaching
professional development: traditional teaching VS lesson study

Symmetric Measures

- a. Not assuming the null hypothesis.
- b. Using the asymptotic standard error assuming the null hypothesis.

It is clear that except post application reflection sheets the agreement is almost perfect in the first six data pool on the basis of Landis and Koch's (1977) reference list. The reason behind substantial agreement in post application reflection sheets could be attributed to the limited number of valid cases subjected to statistical analysis, that is 26.

On the basis of the discussion between two raters in order to increase agreement the following arrangements were made in the structure of the original codebook developed for the theme.

- The codes “observation of student learning” and “checking learning and understanding” were merged under the code label “observation of student learning” because it was agreed that they meant almost the same thing.
- The label coded as “focus on student learning” was transferred under the heading of professional development as it is one of the core aims of LS intervention concerning professional development of teachers as mentioned before.
- The codes that were labelled as “giving instructions” and “giving purpose” were merged under “giving purpose” since it was seen that they implied similar concepts.
- The code labelled as “motivation” changed as “increasing motivation” in order to cause misunderstanding with the code named as “motivation” in the learner theme
- The codes “transition” and “visual materials” were restructured under “the lesson” theme as it was thought that they were directly linked with the flow of the lesson.
- The codes “target language use”, “using board space effectively, and “communication with students” were removed from the theme because of the very low frequency of the labels
- The codes “assigning group members” and “eliciting response from students” were placed under teacher intervention theme on the basis of the reliability analysis of interaction theme.
- The code label “self correction” was removed from the learner theme and placed under teacher intervention.

As a result, the theme and the codes involved were reshaped as in the following table.

Table 13.

Reorganization of Codebook for the “Professional Development” Theme

TEACHER INTERVENTIONS
teacher interventions: activating schemata
teacher interventions: activity content
teacher interventions: activity management
teacher interventions: assigning group members
teacher interventions: attracting attention
teacher interventions: boredom-sameness
teacher interventions: classroom management
teacher interventions: considering all students
teacher interventions: eliciting response from students
teacher interventions: error correction
teacher interventions: establishing appropriate behaviour
teacher interventions: evaluation
teacher interventions: fun element
teacher interventions: giving encouragement, feedback and praise
teacher interventions: giving instructions
teacher interventions: grading and sequencing
teacher interventions: inductive teaching
teacher interventions: input & intake
teacher interventions: instructional strategy
teacher interventions: monitoring students
teacher interventions: more challenging tasks
teacher interventions: increasing motivation
teacher interventions: observation of student learning
teacher interventions: positive classroom atmosphere
teacher interventions: questioning
teacher interventions: scaffolding
teacher interventions: self correction
teacher interventions: using time effectively

The table presents that the number codes that was 33 at the beginning was reduced to 28 after Cohen’s kappa analysis and discussion between the raters by merging and removal of certain codes.

3.8.2.5. Intercoder Reliability Analysis of “The Classroom” Theme

The theme originally included five code labels attached to the quotations that the participants referred to the classroom environment in the collected data (see table 2). The following table displays statistical results of Cohen’s kappa analysis of “the classroom” theme.

Table 14.

Intercoder Reliability Measures of “The Classroom” Theme

	Value (Measure of agreement, Kappa)	Asymptotic Standardized Error ^a	Approximate T ^b	Approximate Significance
Pilot Study	,814	,175	2,746	,006
RL 1	,895	,050	10,964	,000
RL 2	,828	,109	5,651	,000
RL 3	,690	,167	2,997	,003
RL 4	,622	,219	2,955	,003
Focus Group Interview	-	-	-	-
Post App Reflection	-	-	-	-

Symmetric Measures

a. Not assuming the null hypothesis.

b. Using the asymptotic standard error assuming the null hypothesis.

The table shows that in pilot study, RL 1 and RL 2 the agreement is almost perfect but in RL 3 and 4 the agreement is substantial. Kappa analysis wasn't conducted for focus group interview and post application reflection because of the limited number of quotations attached to the codes that is two in total. In this sense the agreement was provided by discussion between the two raters. The substantial agreement in RL three and four was due to the limited frequency of the codes as in focus group interview and post application reflection sheets but the number of quotations to which the codes were applied was adequate for Cohen's kappa.

In order to increase agreement, the raters followed the same procedure as in the previous themes and settled the conflict by discussing each quotations the codes attached in which the disagreement was observed and reached to a mutual agreement. As a result, code named “classroom environment” was removed from the theme because of the low frequency of the label and the disagreement was resolved. The following table presents the units of “the classroom” theme after intercoder agreement procedure.

Table 15.

Reorganization of Codebook for the “The Classroom” Theme

THE CLASSROOM
the classroom: over crowded class
the classroom: physical layout
the classroom: seating arrangement
the classroom: technical problem

3.8.2.6. Intercoder Reliability Analysis of “The Learner” Theme

The theme includes quotations about learner related issues as the name suggests and consisted of 19 code labels originally (see table 2). The table below displays the results of Cohen’s kappa statistical analysis of intercoder agreement

Table 16.

Intercoder Reliability Measures of “The Learner” Theme

	Value (Measure of agreement, Kappa)	Asymptotic Standardized Error ^a	Approximate T ^b	Approximate Significance
Pilot Study	,910	,025	36,641	,000
RL 1	,919	,020	47,329	,000
RL 2	,935	,024	32,053	,000
RL 3	,920	,029	27,564	,000
RL 4	,918	,030	29,408	,000
Focus Group Interview	,659	,154	5,907	,000
Post App Reflection	,683	,112	7,614	,000

Symmetric Measures.

- a. Not assuming the null hypothesis.
b. Using the asymptotic standard error assuming the null hypothesis.

The table clearly represents that a high degree of agreement was achieved for the first five applications except focus group interview and post application reflection sheets. The substantial agreement arised from the number of instances coded in two data sources that was ten in focus group interview and nineteen in post application reflection sheets. As a result, a small degree of inconsistency between two raters resulted in a significant change in Kappa value. The following procedures were applied for the purpose of increasing intercoder agreement.

- The codes “attention span” and “fossilization” were removed from the theme because of the low level of groundedness.
- The code “self correction” was transferred to “teacher interventions” theme as mentioned before since it was seen that the learners applied to self correction with the teacher’s strategical effort during the RLs.
- The second rater suggested to merge “background knowledge” and “students language proficiency level” but it was decided mutually to analyze them separately as they referred to different concepts on the basis of the analysis of the 90 quotations attached.
- The codes “allocation of attention” and “students’ interest and attention to the activity” were merged under the code label “allocation of attention.

As a result, a strong agreement was established and the theme was restructured as displayed in the following table.

Table 17.

Reorganization of Codebook for the “The Learner” Theme

THE LEARNER
the learner: affective considerations
the learner: allocation of attention
the learner: background knowledge
the learner: diversity
the learner: language production
the learner: misbehaviour
the learner: motivation
the learner: native language use
the learner: off task behaviour
the learner: retention
the learner: student engagement
the learner: student involvement
the learner: students language proficiency level
the learner: students needs and interests
the learner: uninterested students

As the table suggests, the number of codes was reduced to 15 out of 19 and the interater agreement procedures were finalized.

3.8.2.7. Intercoder Reliability Analysis of “The Lesson” Theme

The following table represents the output of Cohen’s Kappa analysis for “the lesson” theme.

Table 18.

Intercoder Reliability Measures of “The Lesson” Theme

	Value (Measure of agreement, Kappa)	Asymptotic Standardized Error^a	Approximate T^b	Approximate Significance
Pilot Study	,739	,074	9,742	,000
RL 1	,705	,086	8,325	,000
RL 2	,801	,092	7,758	,000
RL 3	,750	,096	6,868	,000
RL 4	,683	,156	3,270	,001
Focus Group Interview	-	-	-	-
Post App Reflection	-	-	-	-

Symmetric Measures.

- a. Not assuming the null hypothesis.
b. Using the asymptotic standard error assuming the null hypothesis.

According to table, the degree of agreement is substantial on the basis of Landis and Koch’s (1977) reference list. As mentioned before, the lower agreement compared to the other themes is due to the comparatively fewer number of valid cases attached to the code labels that are subjected to Kappa analysis. In the pilot application, the number of valid cases was 61 and only in seven quotations disagreements were observed. Although, the number of disagreement is relatively quite few, it causes significant change in the Kappa value as in RL 1, 2, 3 and four. A consistent analysis was not conducted in focus group interview and post application reflections because of the number of quotations subjected to Cohen’s kappa. Within this perspective, each disagreement issue was discussed in detail between the raters and a close agreement was provided as a result of the following decisions.

- The codes “lesson planning and implementation” and “plan and lesson mismatch” coded under professional development theme initially by the

researcher were transferred to “the lesson” theme on the basis of joint decision of the raters as mentioned before.

- The code “classroom language” was removed from the theme because of the limited groundedness and low frequency of the label.
- The codes “setting the stage for the lesson” and “warm up activity” were merged under the heading of “beginning the lesson” as the term covers both code labels and the quotations attached
- The codes “transition” and “visual materials” which were included into teacher interventions theme by the researcher were replaced under the lesson theme as discussed before.

As a result, a close agreement was provided in the interpretation of data pool about the lesson theme between the raters. The following table presents the final version of “the lesson theme”.

Table 19.

Reorganization of Codebook for the “The Lesson” Theme

	Value (Measure of agreement, Kappa)	Asymptotic Standardized Error^a	Approximate T^b	Approximate Significance
Pilot Study	,886	,053	13,183	,000
RL 1	,822	,066	12,447	,000
RL 2	,896	,096	6,377	,000
RL 3	,778	,125	4,950	,000
RL 4	,875	,117	5,604	,000
Focus Group Interview	,681	,132	4,955	,000
Post App Reflection	,746	,110	6,946	,000

3.8.2.8. Intercode Reliability Analysis of “The Teacher” Theme

The theme includes the codes concerning the authenticity of teacher performance in the classroom. It involved 14 code labels before the intercode reliability analysis. The following table represents the results of Cohen’s kappa intercode reliability analysis of “the teacher” theme.

Table 20.

Intercoder Reliability Measures of “The Lesson” Theme

THE LESSON
the lesson: beginning the lesson
the lesson: effective lesson
the lesson: lesson planning and implementation
the lesson: plan and lesson mismatch
the lesson: review and consolidation
the lesson: time constraint
the lesson: transition
the lesson: visual materials
Symmetric Measures
a. Not assuming the null hypothesis.
b. Using the asymptotic standard error assuming the null hypothesis.

The table overtly presents the degree of agreement is almost perfect in pilot study, RL 1, RL 2 and RL 4. However, the conformity is substantial in RL 3, focus group interview and post application reflection sheets according to Landis and Koch's (1977) reference list. As mentioned before, the number of valid cases subjected to the analysis is fewer in focus group interview and post application reflection sheets and the decrease in the kappa value could be attributed to this situation because it was observed that the number instances where the disagreement was observed in focus group interview was 2 and it was 3 in post application reflection sheets. In a similar vein, out of 16 quotations inconsistency was observed in 2 of the quotations in RL 3.

The instances of disagreement were analyzed by the two raters in detail as in the previous analysis and the following decisions were taken in order to increase agreement.

- The codes with frequencies lower than five that are “empathy”, “lecturing”, “modelling target language behavior”, “teacher control”, and “teacher role” were removed from the theme as in the previous analysis since it was thought that they did not provide significant findings on the basis of their groundedness when compared with other labels
- The code labelled as “collaboration” was moved to professional development theme.

After intercoder agreement analysis the theme and its units were reshaped as in the following table.

Table 21.

Reorganization of Codebook for the “The Teacher” Theme

THE TEACHER
the teacher: addressing students
the teacher: body language/intonation
the teacher: instructional style
the teacher: learner centred instruction
the teacher: native language use
the teacher: teacher effort
the teacher: teacher positioning during tasks
the teacher: technology use

Intercoder reliability analysis was finalized for the whole study with the analysis of the teacher theme and the new codebook was reshaped as in the following table.

Table 22.

Revised Codebook after Intercoder Reliability Analysis

INTERACTION	PERSONAL DEVELOPMENT	PROFESSIONAL DEVELOPMENT	TEACHER INTERVENTIONS	THE CLASSROOM	THE LEARNER	THE LESSON	THE TEACHER
active participation of students	self-awareness	collaboration	activating schemata	over crowded class	affective considerations	beginning the lesson	adressing students
cooperation with classmates	self-confidence	critical moments	activity content	physical layout	allocation of attention	effective lesson	body language/intonation
disengagement	teacher adaptability	focus on student learning	activity management	seating arrangement	background knowledge	lesson planning and implementation	instructional style
interaction among students	teacher creativity	lesson study experience	assigning group members	technical problem	diversity	plan and lesspn mismatch	learner centred instruction
peer support	teacher judgement	multidimensional class	attracting attention		language production	review and consolidation	native language use
working in groups and pairs	teacher rapport	perception change	boredom-sameness		misbehaviour	time constraint	teacher effort
		professional development	classroom management		motivation	transition	teacher positioning during tasks
		reflective teaching	considering all students		native language use	visual materials	technology use
		research based thinking	eliciting response from students		off task behaviour		
		theory-practice	error correction		retention		
		threatening effect of LS	establishing appropriate behaviour		student engagement		
		traditional teaching	evaluation		student involvement		
		traditional teaching VS lesson study	fun element		students language proficiency level		
			giving encouragement, feedback and praise		students needs and interests		

giving
instructions
grading and
sequencing
inductive teaching
input&intake
instructional
strategy
increasing
motivation
monitoring
students
more challenging
tasks
observation of
student learning
positive
classroom
atmosphere
questioning
scaffolding
self-correction
using time
effectively

uninterested students

CHAPTER IV

FINDINGS

4.1. Introduction

This chapter reveals the findings of the present study obtained through detailed content analysis of the data collected before, during and after several implementations of LS intervention through lesson planning meetings, post lesson discussions, classroom observation sheets, reflective journals and semi-structured interviews. The large volume of transcribed data consisted of seventy-three primary documents were analyzed via Atlas.ti qualitative data analysis software. The results were presented in line with the research questions and discussed under three main headings professional development, personal development and overall impact of LS intervention namely. Several sub-research questions guiding the focus of the study were considered in detail and reported with participants' transcriptions.

4.2. The Impact of Lesson Study Intervention on Preservice Teachers of English

The following table displays the distribution of quotations sorted under the code families known as “themes” in the whole study that is consisted of data collected from pilot study, RL 1, RL 2, RL 3, RL 4 and post application documents. Post application documents are consisted of data collected from focus group interview that the participants evaluated the whole LS process and reflections that they wrote a year after the intervention.

Table 23.

The Frequency Distribution of Themes

	Pilot Docs		RL1		RL 2		RL 3		RL 4		Post App Docs		TOTALS :	
	N	%	N	%	N	%	N	%	N	%	N	%	N	%
Interaction	62	24,8	64	25,7	38	15,2	36	14,4	47	18,8	2	0,8	249	6,9
Personal Development	247	23,2	276	25,9	202	19	226	21,2	63	6	50	5	1064	29,7
Professional Development	66	24,3	54	19,9	10	3,6	21	7,7	23	8,4	97	35,7	271	7,5
Teacher Interventions	148	17,6	245	29,2	187	22,2	126	15	111	13,2	22	3	839	23,4
The Classroom	10	11,6	47	54,6	17	19,7	5	5,8	6	6,9	1	1,1	86	2,4
The Learner	137	22,3	175	28,5	106	17,3	91	14,8	84	13,7	19	3,1	612	17,1
The Lesson	108	32,1	79	23,5	53	15,7	58	17,2	26	7,7	12	3,5	336	9,4
The Teacher	27	23,2	40	34,4	18	15,5	16	13,8	8	6,8	7	6	116	3,2
TOTALS:	805	22,5	980	27,4	631	17,6	579	16,2	368	10,2	210	5,8	3573	100

The table presents the number of quotations in each data collection instances and their average percentage from the total as mentioned before. The total number of quotations attached to the codes is 3573. Out of the total number, 805 quotations were elicited from pilot study (% 22,5) , 980 quotations were coded from RL 1 (%27,4), 631 quotations were linked to the codes in RL 2 (% 17,6), 579 quotations were obtained from RL 3 (% 16,2), 368 quotations were coded in RL 4 (% 10,2) and 210 quotations were attached to the codes in post application documents (% 5,8). It is clear that except RL1 a steady decrease exists in the number of quotations attached in each data collection instances.

With respect to the themes it is not possible to talk about a steady decrease or increase in the distribution of quotations. 249 quotations were associated with the code labels in the “Interaction” theme. Of 249 quotations, about fifty percent of them linked to the codes in pilot study and RL 1 (pilot study % 24,8, RL 1 % 25,7). 38 quotations were elicited from RL 2 which equals to %15,2 of the total number. In RL 3, the number of quotations linked to the codes is 36 and it is percentage is 14,4. The number slightly increases in RL 4 with 47 quotations and 18,8 % of 249 quotations. Only two quotations were elicited from post application documents and the percentage is less than one percent (%0,8).

The highest number of quotations was obtained in the “Personal Development” theme as presented in the table. In total, 1064 quotations were linked to the codes within

the personal development theme. The distribution of quotations follows a wavy pattern and it is not consistent as in the previous theme. In total, 247 quotations were obtained from pilot study which corresponds to % 23, 2 of 1064 quotations. The number slightly increases to 276 quotations in RL 1 which is equal to % 25,9 of the total number. In RL 2, 202 quotations were attached to the code labels and that corresponds to % 19 of the total. 226 quotations were linked to the codes under personal development theme in RL 3 and the percentage is % 21, 2. The number of quotations in RL 4 and post application documents are a lot fewer than the numbers in the previous applications. Only 63 quotations were attached to the codes in RL 4 and that corresponds to % 6 of the total quotation number. In post application documents, 50 quotations were elicited and it is equal to % 5 of 1064 quotations.

Concerning “Professional Development”, 271 quotations were linked to the codes within the theme. Of 271 quotations, 66 were obtained in the pilot study and its percentage equivalent is % 24,3. In RL 1, 54 quotations were attached to the codes within the scope of the theme and it corresponds to % 19,9 of the total 271 quotations. The associated quotation number was the fewest in RL 2 with 10 quotations that was equal to % 3,6. Similarly, only 21 quotations were linked to the codes in RL 3 and its percentage equivalent is % 7,7. The number of quotations obtained from RL 4 was close in number to the quotation number in RL 3. 23 quotations were associated with the code labels and the corresponding percentage was % 8,4. The highest number of quotations for professional development theme was elicited from post application documents. 97 quotations were tied to the codes within the theme which was equal to % 35,7 of the total number of quotations.

The second highest number of quotations that were associated with the codes was elicited in “Teacher Interventions” theme as presented in the table. A total of 839 quotations were linked to involving codes. It is not possible to talk about a consistent change in the distribution of codes as in the previous themes. In pilot study, 148 quotations were assigned to the code labels and the percentage is %17,6. In RL 1, 245 quotations were linked to the codes which is equal to %29,2 of 839 quotations. For the second RL 187 quotations were pinned to the codes within the theme and the ratio of the quotations to the total number is % 22,2. The number of quotations attached to the codes in RL 3 is 126 and it corresponds to %15 of the total number of quotations linked to the codes. In RL 4, 111 quotations were defined to identify with the codes and the percentage is %13,2. Concerning post application documents, the number of quotations is quite

limited compared to the other data sources. Only 22 quotations were linked to the code labels within the theme and the number is equal to just three percent of the total 839 quotations.

The total quotation number of “The Classroom” theme is the fewest when compared with the other themes since only 86 quotations were determined to link with the codes under the theme. 10 quotations were matched with the labels in pilot study and it is equal to the %11,6 of the total quotation number. More than half of the quotations (%54,6) associated with the codes belongs to RL 1 as represented by the table and the number is 47. With respect to RL 2, 17 quotations were defined to link with the codes and it corresponds to % 19,7 of 86 quotations. In RL 3 and 4 a total of 11 quotations were elicited. 5 of them belongs to RL 3 with % 5,8 ratio and 6 of them belongs to RL 4 with % 6,9 ratio. In post application documents only one quotation was attached to the code label and it corresponds to % 1,1 of the total number.

A total of 612 quotations were associated with the code labels under “The Learner” theme. Concerning the groundedness, the theme is ranked three on the basis of the number of quotations assigned as the table presents. Except RL 1, a steady decrease exists in the distribution of quotations among data sources. In pilot study a total of 137 quotations were specified to link with the codes and the corresponding percentage is %22,3. The number of quotations attached to codes is highest in RL 1 as in the previous themes. 175 quotations were linked to the codes in RL 1 and it is equal to % 28, 5 of the total quotation number. In RL 2, 106 quotations were elicited that corresponds to % 17,3 of 612 quotations. % 14,8 of the total quotations belongs to RL 3 and the number of quotations is 91. In RL 4, 84 quotations were linked to the codes within the theme and that is equal to % 13, 7 of the total number. In a similar vein, the fewest number of quotations attached to the code labels in the theme is observed in post application docs as the table represents and the corresponding percentage is % 3,1.

Concerning “The Lesson” theme a total of 336 quotations were attached to the codes within the theme. Almost one third of the total quotations linked to the labels were elicited in pilot study as presented by the table and it is equal to % 32,1 of 336 quotations. In RL 1, 79 quotations were identified with the determined codes and that corresponds to %23, 5 of the total quotation number. 53 quotations were referenced in RL 2 and the percentage is %15,7. A small increase in the number of quotations (58) was observed in RL 3 with a percentage of % 17, 2. A significant decrease is present in RL 4 and post application documents as the table represents. 26 quotations were linked to the code labels in RL 4

whose corresponding ratio is % 7,7 of the total quotations. Only 12 quotations concerning the lesson theme was determined in post application documents and its corresponding percentage is % 3,5.

With regard to “The Teacher” theme, 116 quotations were linked to codes within the theme. A similar trend was observed in the distribution of quotations as presented in the table. Except RL 1, a regressive tendency is existent. In pilot study, a total of 27 quotations were associated with the codes that is equal to %23,2 of the total number. In RL 1, a sharp increase is present with 40 quotation number that corresponds to more than one third of 116 quotations (% 34,4). In RL 2, 18 quotations were referenced to the codes in the theme and the percentage is %15,5. A slight decrease was observed in RL 3 with 16 quotations linked to the codes within the theme corresponding to % 13,8 of the total. As in the previous representations, the number of quotations is limited in RL 4 and post application documents. Only 8 quotations were pinned to the labels in RL 4 with percentage of % 6,8 while 7 quotations were linked in post application documents with a ratio of % 6.

In summary, it can be concluded that the theme which has the highest frequency on the basis of number of associations with the codes within the theme is Personal Development as illustrated by table 21. It includes % 29,7 of the total number of quotations obtained during the whole study. Teacher Interventions theme is ranked second with respect to frequency distribution of the quotations associated with the codes within the theme that is 839. It corresponds to % 23,4 of the total quotation number. Teacher Intervention theme is followed by The Learner theme as the table represents. The quotations that are associated with the codes within the theme forms % 17,1 of the total number of quotations that is 3573. The frequency declines sharply in the following themes. The theme that is ranked fourth with respect to the number of quotations associated with the codes in the theme is The Lesson theme. The percentage distribution of the association within the theme is equal to % 9,4. The Lesson theme is followed by Professional Development theme in terms of code-quotation frequency. The number of quotations associated with the codes in the theme represents % 7,5 of the total number. The last three themes in rank order on the basis of frequency count of quotation are Interaction, The Teacher and The Classroom themes respectively. The quotations associated with codes within Interaction theme corresponds to % 6,9 of the total, within The Teacher theme corresponds to % 3,2 of the total, within The Classroom theme, it corresponds to % 2,4 of the total.

4.3. The Impact of Lesson Study Intervention on the Professional Development of Preservice Teachers of English

This section presents the distribution of codes within theme and the network view of the elicited codes concerning professional development of teachers together with their groundedness and density. Additionally, the findings about each participating preservice teacher's professional development were presented separately on the basis of emerging codes. Through the use visual representations known as mind maps, associations, similarities and differences were displayed. The findings were represented with the accompanying quotations.

4.3.1. The Distribution of Codes in Professional Development Theme

The following table displays the number of instances for 13 code labels within the theme and their proportional percentages value calculated according to the totals. The first percentage value gives the proportion of the quotations of the code with the total in data sources. The second percentage value represents the proportion of the code in each data source with the total number of quotations associated with the selected code.

Table 24.

Professional Development Theme

CODES	PILOT			RL1			RL2			RL3			RL4			POST APP.			TOTALS:	
	N	%	%	N	%	%	N	%	%	N	%	%	N	%	%	N	%	%	N	%
lesson study experience	8	11	15	9	15	17	0	0	0	2	9	4	9	36	17	26	23	48	54	18
collaboration	16	21	34	7	12	19	1	9	2	0	0	0	2	8	4	21	19	45	47	15
perception change multi dimensional class	6	8	15	3	5	7	2	18	5	3	14	7	0	0	0	27	24	66	41	13
critical moments	5	7	15	14	23	42	3	27	9	5	23	15	0	0	0	6	5	18	33	11
focus on student learning	0	0	0	4	7	14	2	18	7	6	27	21	13	52	49	4	4	14	29	10
traditional teaching	12	16	57	3	5	14	0	0	0	0	0	0	0	0	0	6	5	29	21	7
professional development	7	9	41	5	8	29	0	0	0	4	18	24	0	0	0	1	1	6	17	6
research based thinking	3	4	23	5	8	38	0	0	0	1	5	8	1	4	8	3	3	23	13	4
teaching VS lesson study	1	1	8	0	0	0	1	9	8	0	0	0	0	0	0	11	10	85	13	4
theory practice	8	11	67	2	3	17	0	0	0	0	0	0	0	0	0	2	2	17	12	4
threatening effect of LS	5	7	45	6	10	55	0	0	0	0	0	0	0	0	0	0	0	0	11	4
reflective teaching	4	5	40	1	2	10	2	18	20	1	5	10	0	0	0	2	2	20	10	3
TOTALS:	0	0	0	1	2	25	0	0	0	0	0	0	0	0	0	3	3	75	4	1
	75	100		60	100		11	100		22	100		25	100		112	100		305	100

The first code with the highest number of quotations is “lesson study experience” which includes quotations that the participants’ directly referred to LS process and commented on the experience itself only. As the table presents the total number of quotations concerning “lesson study experience” is 54 and its overall percentage is % 18 which means almost one fifth of 305 quotations about professional development is associated with “lesson study experience”. Another important finding is % 48 of 54 quotations were obtained in the post application documents and it is equal to 26 quotations which corresponds to %23 of the total number of quotations referenced in post application documents. It is clear in the table that no quotations were linked to the selected code label in RL 2.

The other code label ranked as the second in the number of associated quotations is “collaboration” which includes participants’ quotations concerning collaborative learning environment enabled by LS process. It is represented in the table that % 15 of 305 quotations about professional development is linked with “collaboration” and that is 47 in number. The table also presents that %45 of the quotations referenced with

“collaboration” code is obtained in the post application documents and % 34 is obtained in pilot study documents. In RL 3, no quotations were referenced with collaboration code.

The third code that is high in frequency count is “perception change” includes quotations that the participants explain the changes and differences in teaching before and after the intervention. It’s clearly presented in the table that there are 41 quotations about “perception change” code and it corresponds to % 13 of the total code number about professional development. As in the previous code labels discussed above, most of the quotations linked with “collaboration” is obtained in post application documents and it is approximately equal to two third of the total number (%66). No quotation is referenced to “collaboration” in RL 4 data sources as the table presents.

The fourth code in the order of frequency of occurrence count is “multidimensional class”. The code label covers quotations about changing and unexpected nature of classroom environment that is experienced during the course of teaching process. The table presents that there are 33 quotations about “multidimensional class” and it is equal to % 11 of the total number of quotations about professional development. % 42 of the 33 quotations about “multidimensional class” that is 14 in number was elicited in RL 1 as presented in the table. Similar to the previous code “perception change” no code is associated with the selected code “multidimensional class” in RL 4.

The code named as “critical moments” is the fifth one in the theme on the basis of frequency count. The code was entitled as critical moments because it included quotations about specific situations about student learning and understanding or implementation of a planned activity etc. requiring attention observed by the participants during the implementation of the RLs. There are 29 quotations about the selected code and it represents % 10 of the total quotation number of the theme which is 305. Almost half of the quotations associated with “critical momemnts” code was obtained in RL 4. Another interesting finding presented in the table is that no quotations were referenced with the selected code in pilot study documents.

The code ranked sixth in the order of occurrence frequency is “focus on student learning”. The code includes participants’ explicit and implicit statements that they grounded their teaching strategies on the learners’ understanding during the planning and implementations of the RLs. As the table presents, there are 21 quotations associated with “focus on student learning” code in the theme and it is equal to % 7 of the total number of quotations about professional development. The table further displays that in RLs 2, 3 and 4 no quotations were associated with the selected code.

The code coming up next in the frequency is “traditional teaching” code which subsumes participants’ statements about traditional language teaching classrooms in which students’ motivation, involvement and engagement is because of teacher centred instruction. The number of quotations associated with “traditional teaching” code is 17 and it corresponds to %6 of the total number of quotations about professional development theme. Of these 17 quotations, 7 of them were obtained in the pilot study, 5 of them were obtained in RL 1 and six of them were elicited in post application documents. No associations with the code label was observed in RLs 2,3 and 4.

The following five codes are “professional development”, “research-based thinking”, “traditional teaching vs lesson study”, “theory-practice” and “threatening effect of lesson study” respectively. They are given in group because they are very close to each other in terms of frequency of occurrence within the theme. The code label “professional development” includes participants’ references about the impact and contribution of lesson study process to their professional development and the total number of quotations 13 which is equal to % 4 of 305 quotations about professional development. Except RL 2, quotations about professional development were obtained in each data sources. The next code, “research-based thinking” includes quotations about participants’ reflecting on their teaching practices during LS implementation and questioning certain incidents in the classroom. A total of 13 quotations were associated with “research-based thinking” code and they were obtained in pilot study, RL 2 and post application documents. The following code is “traditional teaching vs lesson study” included quotations that the participants compared LS intervention with the traditional classrooms. As presented in the Table 22, 12 quotations were linked with the selected code and 8 of them were obtained in the pilot study. No quotations were associated with the selected code in RLs 2, 3 and 4. The code labelled as “theory-practice” included statements about the role of LS intervention in filling the gap between theory and practice. A total of 11 quotations were associated with the code which is equal to % 4 of the total quotation number about the theme and they were elicited in pilot study and RL 1. The following code which is ranked number 12 in terms of frequency of occurrence is labelled as “threatening effect of lesson study” and it included negative implications in the application of LS intervention. The table clearly represents that 10 quotations were linked with the code mentioned, it was observed in each data sources except RL 4.

The last code with the lowest frequency count within the theme is “reflective teaching” code as shown in the table. The code included participants’ statements that they

question their teaching practices after LS intervention. There were only 4 quotations about the code and % 75 of it were elicited in post application documents. The remaining one quotation was associated with the selected code in RL 1.

4.3.2. Network View of Professional Development Theme and the Relationship among Involving Codes

The following figure represents the graphical representation of codes subsumed by professional development theme and their links with the theme and other codes on the basis of the participants' quotations.



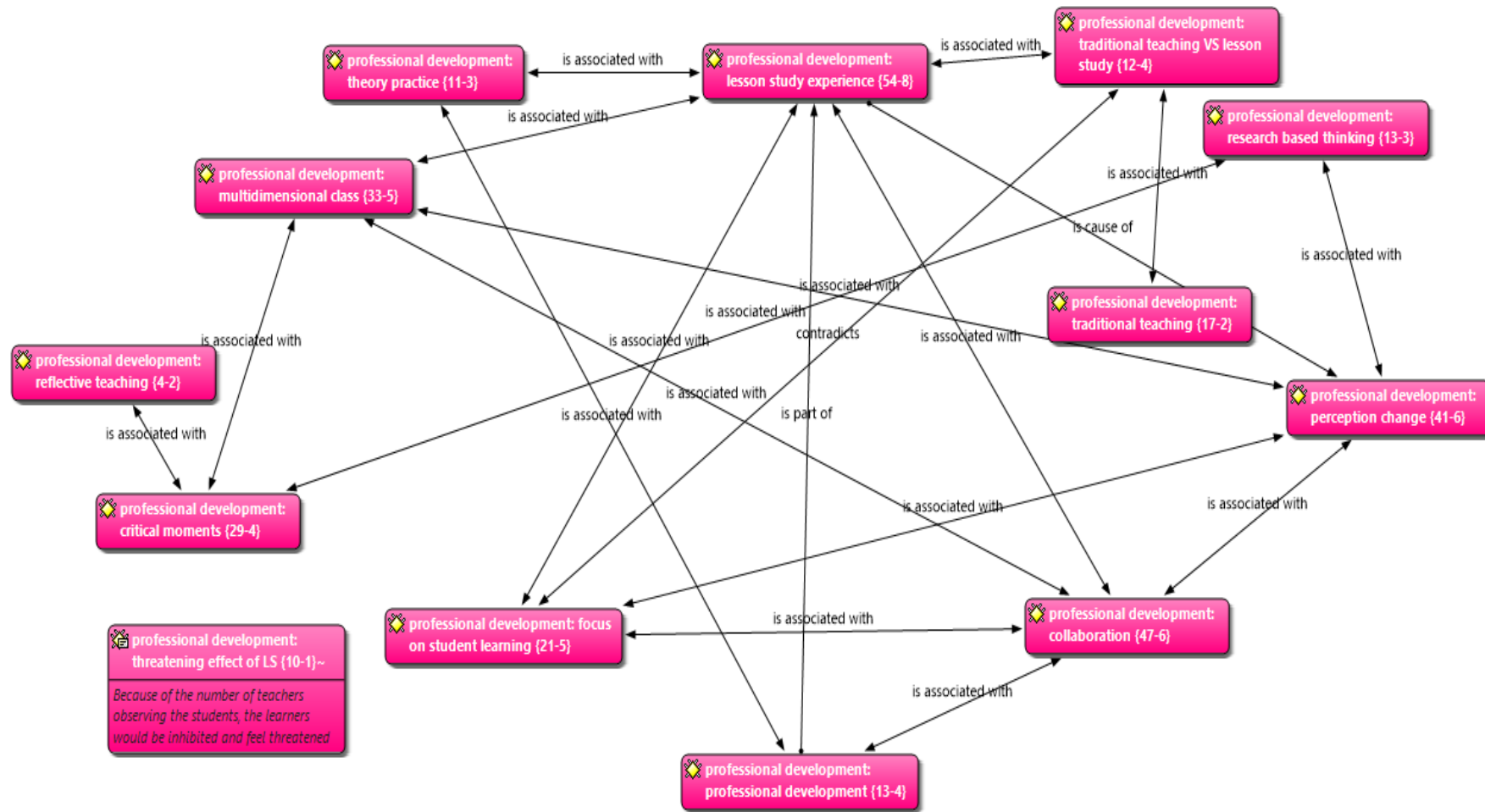


Diagram 4. Network view of professional development theme

The figure displays the semantic representation of professional development theme and the relationship of codes with the theme and the relationship among the codes. The figure also presents the groundedness which refers to the frequency count of the selected code or codes and density which displays the number of links to the other codes.

The theme is consisted of 13 codes in number as mentioned before and each code label has different groundedness and density level in number as given in the figure.

The first code “lesson study experience” includes the quotations that the participants directly refer to the impact of LS intervention to their professional development as mentioned before. As the figure represents the code is the one, which is most frequently attached to the quotations with 54-frequency count. Additionally, it has the highest density level when compared with the other codes as it has 8 relations with the other codes in the theme. One of the links represents theme and code relationship so that a total of 7 code-cooccurrence frequency exists with “lesson study experience” code label. According to the figure, it is obvious that the code “lesson study experience” is interrelated with “multidimensional class, theory-practice, professional development, traditional teaching VS Lesson Study, collaboration, perception change, and focus on student learning codes. The following code co-occurrence table presents the frequency count of how often “lesson study experience” code co-occur with the other codes within the theme.

Table 25.

Lesson Study Experience and Associated Codes

CODES	professional development: lesson study experience	
	Coefficient	Number of Co-occurrence
professional development: collaboration	0,05	5
professional development: focus on student learning	0,03	2
professional development: multidimensional class	0,02	2
professional development: perception change	0,04	4
professional development: professional development	0,05	3
professional development: theory practice	0,02	1
professional development: traditional teaching VS lesson study	0,02	1

The table displays the number of co-occurrence of “lesson study experience” code with the other codes within the theme and co-efficient value of each co-occurrence which indicates the strength of association between the codes. Co-efficient value varies between 0 meaning no relation exists and 1 implying that the selected codes co-occur wherever they are used as stated by Frieze (2014).

Within this perspective, the table clearly portrays that “lesson study experience” code co-occur five times with “collaboration” code and co-efficient value of the relation is 0,05 which shows that each 100 occurrences of the code label “lesson study experience” co-occur with “collaboration. The network view of the theme presented in figure 1 also displays the association. The following quotation is an example of the both code labels co-occurrence.

Extract 1

I have become much more open minded after LS because I can easily go and ask for help to my colleagues when I face with some problems that I can not solve. In fact, I used to hide my teaching problems during practicum when I was a student because I was thinking that noone should know about it because i used to consider them as shame. It is not jus about me. My classmates from the practicum would have done the same. However, LS made me realize that it is quite normal to

experience such problems during teaching. During the process, we designed RLs collaboratively and applied them four, five times and almost in each time we saw many problems in the classroom. I saw that working in a collaborative environment helps us a lot (Ext. 73: 4).

The second code that has stronger relation with the selected code “lesson study experience” is “perception change” as indicated by the table. The frequency of co-occurrence is 4 which means that both code labels co-occur four times and the co-efficient value of the association is 0,004. The following quotation represents one of the instances of lesson study experience and focus on student learning co-occurrence.

Extract 2

LS helped me to see teaching from another perspective and extended my point of view. Teaching is not teaching but also concerning about the right lesson plan, student needs and interests and a well-managed classroom (Ext. 23: 10).

The third code associated with “lesson study experience” in terms of the strength of relation is “professional development”. The code was labelled as professional development since the participants directly refer to professional development of themselves in their quotations as mentioned before. As presented in the table both codes were co-occurred three times and the coefficient value is 0,005. The following excerpt is an example of the co-occurrence of both code labels.

Extract 3

After conducting all applications and after several meetings, it is clear that LS has improved my professional development. Different classes and the students we observed led to define new ways of instructions which helped to reach all kinds of students (Ext. 68: 1).

The codes “focus on student learning” and “multidimensional class” co-occurred two times with “lesson study experience” code and the co-efficient values of both codes with the selected code is 0,003 and 0,002 respectively which expresses that the the strength of association is weak when compared with the previous co-occurrences. The following extracts represent the co-occurrences of both focus on student learning and multidimensional class with the selected code.

Extract 4

I think with the help of LS we automatically shift to student centred instruction, because our focus is on students because we are not evaluating the teacher, particularly. We are trying to find out what are the needs of students, what are the specific interests of students and which activities and which tasks can engage them. If the students are not engaged during the instruction is it because of the lack of interests or some other factors? Therefore, we automatically focus on students because what the teacher does is not more important than what the students do in the classroom (Ext. 4:78).

Extract 5

There are many unexpected situations happening in the classroom. By means of LS, we were able to see most of them even before we start our professions as a teacher. During the RLs, we observed many of those unexpected events that we did not consider before, discussed on them and we tried to provide solutions (Ext. 67: 19).

The last two codes that have association with the selected code label “lesson study experience” is “theory-practice” code and traditional teaching vs lesson study” code. Both codes were co-occurred with the selected codes once only and the co-efficient value is 0,002 for both of them. The following excerpts are the only instances of the cooccurrence with the selected code.

Extract 6

LS process was so hard and full for me and it was very effective. Also, it was quite helpful for my teaching career because we are still candidate teachers and we don't have enough practical experience about conducting effective lessons (Ext. 21: 17).

Extract 7

In LS process, you are conducting the lesson on the basis of student learning. During our practicum experiences, we focused on the teaching itself. (17: 17). We

were always thinking about ourselves or the lesson. In lesson study, our target is students (Ext. 4: 112).

The second code that is mostly correlated with the other codes in the theme is “collaboration” as presented in the figure. Figure 1 clearly presents that the code is referenced 47 times and associated with the other six codes. One of the co-occurrences stands for code-theme relationship since the code is subsumed by professional development theme. The following table represents the co-occurrence frequency of the selected code.

Table 26.

Collaboration and Associated Codes

CODES	collaboration	
	Coefficient	Number of Co-occurrence
lesson study experience	0,05	5
professional development	0,03	2
perception change	0,02	2
multidimensional class	0,01	1
focus on student learning	0,01	1

The table above displays that collaboration code co-occurred with lesson study experience code five times. Code co-occurrence explorer provides cross tabulation of codes and it works very similar to correlation matrix. It counts the coincidences of the selected codes. In this sense, the co-occurrence of codes analysed before (the co-occurrence of lesson study experience and collaboration) is presented again in the present table. Therefore, the findings concerning the relationship and the extracts supporting the co-occurrence will not be provided again.

The code that is ranked second in terms of frequency of co-occurrence with the selected code collaboration is professional development. It is clear that collaboration code co-occurred with professional development code in two instances and and co-efficient value of the relationship is 0,003. The following extract is an example of the co-occurrence.

Extract 8

The organization and planning of lessons together with other group members collaboratively has had a tremendous impact on my professional development. (Ext.20: 1).

The third code that has relationship with the selected code “collaboration” is “perception change”. The table clearly illustrates that both code labels co-occurred two times as in the previous co-occurrence but the co-efficient value decreases to 0,002. It is because that the number of quotations associated with “perception change” is much higher in number than the quotations associated with professional development. In this sense, the instances of co-occurrence between collaboration and perception change decreases. The following extract represents one of the instances of the co-occurrence.

Extract 9

Although the exchange of ideas is available in many schools, they are mostly between to sincere teachers who know each other very well. I used to prefer to solve problems via reading in forums on the internet instead of directly asking to the other teachers about the common issues of a certain class. However, LS helped to break the ice among the teachers and get direct information from the main source about the current issue (Ext. 68:5)

The selected code label “collaboration” co-occurred with two more codes within the theme, multidimensional class” and “focus on student learning” respectively, as presented in the table and they occurred only in one quotation. The following extract is a sample for the co-occurrence between collaboration and multidimensional code labels.

Extract 10

Paying sufficient attention to the dynamics of the class and exchanging ideas with other teachers are personally the outstanding features of LS (Ext. 68:4).

The extract below represents the instance of co-occurrence between collaboration code and focus on student learning code.

Extract 11

With the help of LS process, I was able to see that the students' achievement level increases in the classroom because we come together and discuss the things that the students could do, the things what they were not able to do and how we could make it better for them (Ext. 4: 51).

Figure 1 further presents that the third code label with high-density is “perception change” in professional development theme. There are 41 quotations associated with “perception change” code as mentioned before and the code has been linked to six other code labels in the theme. It is already mentioned that one of the co-occurrence represents code and theme co-occurrence so that the code co-occurred with five other codes within the theme. The following code-co-occurrence table displays the correlation of “perception change” with the other codes in the theme and the strength of the relationship between the selected code and the others.

Table 27.

Perception Change and Associated Codes

CODES	perception change	
	Coefficient	Number of Co-occurrence
focus on student learning	0,09	5
lesson study experience	0,04	4
collaboration	0,02	2
research based thinking	0,02	1
multidimensional class	0,01	1

The table presents that the code label “perception change” co-occurred with five other codes in the professional development theme. The code that is most frequently associated with “perception change” is “focus on student learning” as displayed by the table above. Both codes co-occurred in five quotations and the co-efficient value of the association is 0,009 which means the frequency of co-occurrence between both codes is 9 in each 100 quotations. The following extract is one incidence of such co-occurrence.

Extract 12

LS has contributed a lot to our professional development. We have had different perspectives concerning teaching. Before the intervention, we used to focus on ourselves, our style while teaching. We were not considering during the course of

instruction if the students were engaging in the lesson or not, if they were making progress, if they understood the content or not (Ext. 67: 1).

The codes ranked second and third code in terms of frequency of association are “lesson study experience” and “collaboration” respectively. The related findings were discussed under relevant tables above.

The table further represents that the selected code “perception change” co-occurred with “research based thinking” and “multidimensional class” codes only in one quotation and the co-efficient value for both code labels is 0,02, 0,01 respectively. The following extracts present these co-occurrences.

Extract 13

Before LS, when I planned an activity to use in the classroom and it didn’t work well with students, I used to leave it. I would never work on it or question or investigate why it didn’t work. I used to look for other activities instead of it. With the help of this process, I have learned to shape an activity depending on the students, their needs and the situation. (Ext. 67: 8).

Extract 14

We confronted some surprising factors in this application which shows that the number of existing students in the classroom isn’t just an issue if the classroom is crowded. I realized that even with 10 students it was difficult to conduct a successful lesson. This shows that there are several factors affecting the learning atmosphere other than engagement and motivation. (Ext. 49: 9).

The network view given in Figure 1 shows that “multidimensional class” code ranked four in terms of density. It is clear that there are 33 quotations associated with the code and it is linked to five other code labels. One association represents code theme link so that there four other codes referenced with “multidimensional class” code. The following table illustrates the findings concerning the relationship between the selected code and the other four codes.

Table 28.

Multidimensional Class and Associated Codes

CODES	multidimensional class	
	Coefficient	Number of Co-occurrence
lesson study experience	0,02	2
collaboration	0,01	1
perception change	0,02	1
critical moments	0,02	1

The table presents that the code “multidimensional class” co-occurred with lesson study experience code two times, collaboration code and perception change codes once as mentioned before under the relevant tables. In this sense, the extracts concerning the associations are not provided as they are presented before.

The selected code linked to “critical moments” in one quotation in the theme and the following extract represents the co-occurrence between multidimensional class and critical moments.

Extract 15

One of the students misspelled the word “turn off” in the game but you handled really well there (the participants are discussing follow up activity in the post lesson discussion for the second RL and one participant is commenting on the management for the unexpected situation) (Ext. 30:79).

The fifth code in sort concerning association density within professional development theme is “focus on student learning” as displayed by Figure 1. There are 21 quotations attached to the selected code as discussed before and nine of them are linked to the other codes in the theme. The table below presents the the distribution of the links of “focus on student learning” code with the other codes and co-efficient values of the associations.

Table 29.

Focus on Student Learning and Associated Codes

CODES	focus on student learning	
	Coefficient	Number of Co-occurrence
perception change	0,07	4
lesson study experience	0,03	2
traditional teaching VS lesson study	0,06	2
collaboration	0,01	1

The table displays that the given code co-occurred with “perception change” in four quotations as explained before and the co-efficient value of the relation is 0,07. The code co-occurred with “lesson study experience” in two occasions as given before. The other co-occurrence was observed with “collaboration” code label in one quotation as presented in the table above.

The selected code is linked to “traditional teaching VS lesson study” code in two quotations and the value of the co-efficient is 0,06 as given in the table. The extract given below stands as an example for “focus on student learning” and traditional teaching VS lesson study experience codes co-occurrences.

Extract 16

In LS we are planning and implementing the lessons on the basis of students’ learning. Before the intervention, we had teaching oriented focus in the classroom. We were always thinking about ourselves or the lesson. In this intervention our main focus is on students. (Ext. 4:35).

The code coming up next in terms of density level on the basis of Figure 1 is “professional development” code label. There are 13 quotations concerning professional development and it is associated with 3 other codes. The following table presents the associated codes with the selected code label and their density and co-efficient values.

Table 30.

Professional Development and Associated Codes

CODES	professional development	
	Coefficient	Number of Co-occurrence
lesson study experience	0,05	3
collaboration	0,03	2
theory-practice	0,09	2

The table displays that the code “professional development” linked to “lesson study experience” code in three quotations and the co-efficient value of the relation is 0,05. The second code in the order associated with the selected code with respect to density level is collaboration code. They are co-occurred in two instances and the co-efficient value of the co-occurrence is 0, 03. The extracts supporting the relationship is already given under the lesson study experience and collaboration tables.

The code additionally associated with theory-practice code in two quotations but the co-efficient value is higher than the other two linked codes because of the limited number of quotations that are referenced with professional development and theory-practice code labels. The following extract is a reference for both codes co-occurrence.

Extract 17

The outcomes followed by observations and discussion are significantly valuable especially for prospective teachers, otherwise preservice teachers do not have the opportunity to gain experience and valuable information directly from the teaching/learning environment to increase professional development. (Ext. 20:7).

The code “critical moments” has the same density level with “professional development code since it is associated with 3 other code labels in the theme as given in the network view in Figure 1. The total number of quotations concerning “critical moments” is 29 as mentioned before and the given code co-occurred with the other code labels in three quotations. The table below presents the codes co-occurred with “critical moments” label and their co-efficient value.

Table 31.

Critical Moments and Associated Codes

CODES	critical moments	
	Coefficient	Number of Co-occurrence
multidimensional class	0,02	1
reflective teaching	0,03	1
research based thinking	0,02	1

The table displays that the associated codes with the selected codes are multidimensional class, reflective teaching and research-based thinking. The code is linked to each code in one quotation only. The quotation representing the association between “critical moments” and “multidimensional class” was given in extract 15 above.

The following extracts are provided to exemplify the co-occurrence of “critical moments” code label with “reflective teaching” and “research-based thinking” respectively.

Extract 18

In LS we have planned a RL and the lesson was implemented by one of the partners. During the instruction we observe that the teacher may come across unexpected, critical situations that we haven’t discussed before. When the RL teacher deals with these moments, I question myself whether I would do the same or not. I have learned to self-criticize myself during this process. I have learned to reflect on myself while observing RL teacher and the classroom (Ext. 67: 26).

Extract 19

There was a student who was talking constantly during my RL. He was disturbing the classroom with his comments. He was commenting in the native language to all of my instructions. I thought at that moment how to integrate him into the lesson without breaking his heart (Ext. 67: 63).

The code label “traditional teaching VS lesson study” includes quotations in which the participants compared lesson study intervention with traditional teaching models. The code label has 4 transitive relations with the other codes within the theme as presented in Figure 1. When the code-theme relation is excluded, the given code has co-occurred with

“focus on student learning”, “lesson study experience” and “traditional teaching” codes as presented in the table given below.

Table 32.

Traditional Teaching VS Lesson Study and Associated Codes

CODES	traditional teaching VS lesson study	
	Coefficient	Number of Co-occurrence
focus on student learning	0,06	2
lesson study experience	0,02	1
traditional teaching	0,02	1

Since the findings concerning the associations between the given code and “focus on student learning” and “lesson study experience” codes was provided before under the relevant codes, it wont be reconsidered.

The code is also associated with “traditional teaching” code as displayed by the table above in one instance and the co-efficient value is of the association is 0,02. The following extract is representing the co-occurrence between both code labels.

Extract 20

Before LS intervention, we would never consider expected student response while planning the lesson. We used to write what the teachers say and what the students say superficially. It was all about lesson planning. Everthing written in the plan was recitative. How many minutes? Write five. It is done. OK. However, in LS we have ruminated on expected student response during RL planning. We have discussed what if we don’t receive expected response (Ext. 4: 32).

The next code in professional development theme following the order in terms of density is “research based thinking” as displayed by Figure 1. There are 13 quotations attached to the code label and two co-occurrences with the other codes in the theme. The following table presents the findings about the co-occurrences.

Table 33.

Research Based Thinking and Associated Codes

CODES	research based thinking	
	Coefficient	Number of Co-occurrence
critical moments	0,02	1
perception change	0,01	1

It is clear that “research-based thinking” code co-occurred with “critical moments” and “perception change” codes and the number of co-occurrence is one for each co-occurrence as represented by the table. The findings about the associations have already been discussed under “critical moments” and “perception change” co-occurrence tables.

Figure 1 further displays that “theory-practice” code label has the same density level with “research-based thinking” code. The code is linked to two other codes in the theme. The table below presents the associations of the selected code with the other codes and the number of co-occurrences and co-efficient values.

Table 34.

Theory-Practice and Associated Codes

CODES	research based thinking	
	Coefficient	Number of Co-occurrence
lesson study experience	0,02	1
professional development	0,09	2

As presented in the table, the code “research based thinking” associated with “lesson study experience” code in one quotation and the co-efficient value of the association is 0,002. The other code that is linked to the selected code is “professional development”. The co-occurrence for both codes exists in two quotations and the co-efficient value that is 0,09 is much higher than the other co-occurrence with “lesson study experience”. Since the findings and relevant extracts about both co-occurrences have been presented before further details will not be provided.

The last two codes with the lowest density when compared with the other codes in the theme is “reflective teaching” and “traditional teaching” codes. Both codes co-occur

with only one code in the theme as Figure 1 represents. The following table presents the findings concerning co-occurrences of theory and practice code.

Table 35.

Reflective Teaching -Traditional Teaching and Associated Codes

CODES	reflective teaching		traditional teaching	
	Coefficient Value	Number of Co-occurrence	Coefficient Value	Number of Cooccurrence
critical moments	0,03	1	NA	NA
traditional teaching VS lesson study	NA	NA	1	0,04

The table shows that “reflective teaching” code associated with “critical moments” code in one quotation and the co-efficient value of the association is 0,003. Similarly, the instance of co-occurrence between “traditional teaching” code and “traditional teaching VS lesson study” exists in one quotation and the co-efficient value of the co-occurrence is 0,04. NA means that the co-occurrence is not applicable among the selected codes. Because of the cross tabulation of codes enabled by codes-co-occurrence analysis, the findings about co-occurrences between the codes afore mentioned have been given before. Therefore, the extracts supporting the relationship are not repeated here.

Figure 1 also presents the existence of one code with no direct or indirect links to the other codes in the theme which is coined as “threatening effects of Lesson Study”. The code has just one association as represented by the figure and that is the code and theme relationship as mentioned before.

4.3.3. The Impact of Lesson Study on Participant 1’s Professional Development

The following table displays the overall distribution of codes linked to the quotations under professional development theme that are expressed by Participant 1.

Table 36.

Participant 1's Professional Development

Codes	N	%	Co-Efficient
perception change	11	24,4	0,03
collaboration	9	20	0,02
lesson study experience	8	17,7	0,02
focus on student learning	4	8	0,01
traditional teaching VS lesson study	4	8	0,01
theory practice	3	6,6	0,01
multidimensional class	3	6,6	0,01
critical moments	1	2,2	0,00
professional development	1	2,2	0,00
research based thinking	1	2,2	0,00
reflective teaching	N/A	N/A	N/A
threatening effects of LS	N/A	N/A	N/A
traditional teaching	N/A	N/A	N/A
TOTALS	45	100	

Table 34 presents that there are 45 quotations about professional development expressed by Participant 1. Almost one quarter of the total number of quotations is attached to “perception change” code label. In other words, 11 of the quotations are associated with “perception change” and the percentage value of the frequency is %24,4. Perception change is the code that is most frequently linked to the quotations under professional development theme for Participant 1. The co-efficient value that is 0,03 also represents the high relevancy. The quotations associated with “perception change” code label below are given as sample extracts expressed by Participant 1.

Extract 21

Before LS intervention, I used to think of how to give lesson content and how to integrate grammar. I would never pay attention to students. However, I consider a lot how I can transfer the lesson content to students (Ext. 4: 58).

Extract 22

I was frightened of teaching before LS Process. Now, I feel much comfortable before getting into the classroom and I have no fear (Ext. 67: 43).

Extract 23

I had never considered what to expect from students while planning the lesson before LS (Ext. 67:71).

Table 34 further displays that “collaboration” code label is the second one that is most frequently referenced to the quotations stated by Participant 1 in professional development theme. It is clear that there are 9 quotations associated with the selected code and it is equal to % 20 of the total quotation number which is 45. In the following extracts, the participant is referencing to “perception change” code.

Extract 24

The study and the group discussion allowed having more perspectives to deal with which gave me opportunity to benefit directly from other ideas and valuable insights (Ext. 23:3).

Extract 25

Within the discussions, it was clear that collaboration is a significant part of the lessons study. Each group member was able to introduce his/her point of view which shed lights to certain specific areas in focus such as questioning, questioning time, and feedback. (Ext. 71:2).

The third code which has a significant groundedness level is “lesson study experience” as displayed by the table. The number of quotations associated with the given code is 8 and its percentage of distribution is % 17,7. The co-efficient value of the association that is 0,02 is the same as with the preceding association. The extracts below verbalized by Participant 1 represent examples of the quotations linked to “lesson study experience” code.

Extract 26

LS as whole helped me to think in a more detailed manner to plan and create a lesson plan and showed me certain unknown areas in teaching (Ext. 23:2).

Extract 27

Why do the students forget what I instructed to them after a week? I believe that LS process is a solution to this problematic issue in language teaching in Turkey (Ext. 67:29).

The frequency distribution of the other codes under professional development theme for Participant 1 decreases significantly as Table 34 presents. There are 4 quotations referenced with “focus on student learning” and “traditional teaching VS lesson study” code labels which correspond to % 8 of the total quotation number of professional development. Those code labels are followed in frequency by “theory practice” and “multidimensional class” codes with 3 associated quotations. The least frequent codes are “critical moments”, “professional development” and “research based thinking” as displayed by the table. There is only one quotations for each code and their percentage value is % 2,2 for each.

The table further indicates that Participant 1 did not make a reference to “reflective teaching”, “threatening effects of lesson study” and “traditional teaching” codes as those associations are represented as “not applicable” (NA) in Table 34.

4.3.4. The Impact of Lesson Study on Participant 2’s Professional Development

The table given below represents the frequency counts of the codes that are associated with the quotations belonging to Participant 2 together with their percentages on the basis of total number of quotations and their co-efficient values.

Table 37.

Participant 2's Professional Development

Codes	N	%	Co-Efficient
multidimensional class	11	18	0,02
perception change	10	16,3	0,01
lesson study experience	10	16,3	0,01
critical moments	6	9,8	0,01
collaboration	5	8,2	0,01
traditional teaching	5	8,2	0,01
research based thinking	4	6,5	0,01
focus on student learning	3	4,9	0,00
professional development	3	4,9	0,00
theory practice	2	3,2	0,00
threatening effects of LS	1	1,6	0,00
traditional teaching VS lesson study	1	1,6	0,00
reflective teaching	N/A	N/A	N/A
TOTALS	61	100	

As presented in the table, Participant 2 produced 61 quotations referenced that were attached to the codes under professional development theme. As in the previous partner, a significant decrease is observable after three codes. The code with the top frequency is “multidimensional class” label as the table presents. Of 61 quotations referenced, 11 of them were linked to the “multidimensional class”. The ratio of number of quotations linked to the selected code to the total is % 18. The co-efficient value of relationship is significantly small since the number of quotations associated with the codes for the whole study is quite high in number. The extracts below are references for the quotations associated with “multidimensional class” code label which are stated by Participant 2.

Extract 27

Sometimes we don't have to depend on the lesson plan itself because some unexpected situations can change the lesson plan completely. For example, some students are shy and we are trying to make them more engaged and we want them to participate on the basis of our overarching goal but they are shy and we can't apply it. So, we have to make some changes during the lesson (Ext. 4: 104). (The participant is commenting on his/her experiences during the study).

Extract 28

In the follow up activity, I organized groups for the game activity but one girl in the group was excluded because the other group members were all boys in the first row. I couldn't know what to do. I realized that it is possible to come across with such situations at all times (Ext. 18: 59) (The participant is commenting on one occasion that he/she came across in RL 1 during post lesson discussion).

The code coming next on the basis of frequency count and relevancy is “perception change”. As the table presents, 10 quotations were attached to the code and the percentage of the association is % 16,3. The co-efficient value of the association between the quotations and the code is 0,01 which represents that the relation is not strong. The following extracts are samples for the “perception change” code that are linked to the quotations stated by Participant 2.

Extract 29

When we were planning for the lesson before, we would assume all the students were the same. And as Participant 5 says, we used to plan the lesson on the basis of our assumptions. I would never think of what the students will learn, what they are expected to do in the activities, where they will recognize, and where they will produce. I realized how important it is to consider these now. (Ext. 67: 7).

Extract 30

I now consider the interests and motivation of students towards my classes a lot. I address to the students with their names. I ask their names to show that I care them. I am controlling my tone of voice in order not to shout to them in crowded classes. And I got all these after LS intervention (Ext. 67: 68).

The code “lesson study experience” shares the same ranking order in frequency as shown in Table 35 since the number of quotations linked to the code label is 10 and it corresponds to % 16,3 of the total quotations about professional development that are expressed by Participant 2. The quotations below are representing the statements linked to “lesson study experience” code that are produced by Participant 2.

Extract 31

I am so glad to be the part of LS team and gain such valuable experiences. I had a chance to observe many different schools and different students and different RLs. I had the opportunity to try out new and different strategies for each schools (Ext. 47: 8).

Extract 32

I feel lucky being in this valuable experience because before being a teacher officially, I have observed many students who are cognitively, socially and economically at different levels (Ext. 47: 8).

A significant decrease with respect to the number of quotations attached to the other codes is evident according to Table 35. It is presented that there are 6 quotations associated with “critical moments” code and the percentage of the relation is % 9,8. The code is followed by “collaboration” and “traditional teaching” codes and the number of quotations linked to both code labels is 5. The ratio of associations calculated for both code labels is % 8,2. The table further presents that 4 quotations were attached to “research based thinking” code and the percentage value of the association is % 6,5. The frequency counts of codes “focus on student learning” and “professional development” is 3 as displayed by the table and the percentages of both codes is % 4,9.

The codes with the lowest relevancy are “theory-practice”, “threatening effects of lesson study” and “traditional teaching vs lesson study” code labels respectively. “Theory-practice code was associated with 2 quotations in Participant 2’s statements and the corresponding percentage is % 3,2. The other codes “threatening effects of lesson study” and “traditional teaching vs lesson study” are linked to only one quotation as presented in the table. It is clear that Participant 2 did not produce any statements concerning “reflective teaching” since the association between Participant 2 and “reflective teaching” is not applicable as the table displays.

4.3.5. The Impact of Lesson Study on Participant 3’s Professional Development

The following table represents the distribution of codes under professional development theme that are associated with Participant 3’s quotations.

Table 38.

Participant 3's Professional Development

Codes	N	%	Co-Efficient
lesson study experience	11	26,8	0,04
collaboration	8	19,5	0,03
research based thinking	5	12,1	0,02
perception change	4	9,7	0,01
multidimensional class	2	4,8	0,01
traditional teaching	2	4,8	0,01
theory practice	2	4,8	0,01
traditional teaching VS lesson study	2	4,8	0,01
focus on student learning	1	2,4	0,00
critical moments	1	2,4	0,00
threatening effects of LS	1	2,4	0,00
professional development	N/A	N/A	N/A
reflective teaching	N/A	N/A	N/A
TOTALS	41	100	

The table shows that a total of 41 data segments obtained from data sources belonging to Participant 3's statements were associated with the code labels under professional development theme. It is evident that nearly half of the quotations were linked to two codes that are labelled as "lesson study experience" and collaboration. The frequency count of the codes decreases sharply in the followings.

The code with the highest groundedness is "lesson study experience" as displayed by the table. More than one fourth of the quotations were linked to the code and the total number of quotations is 11. The co-efficient value which is 0,04 represents that the relationship between Participant 3's quotations and "lesson study experience" code is stronger than the other codes in the theme. The extracts below are the references for Participant 3's quotations coded as "lesson study experience"

Extract 33

LS has contributed a lot in terms of teaching English and I am sure that my friends think so. Especially, I have learnt how i can observe my students, so I understood that observation is not just watching the students. Also, group working with my team was very effective and fruitful for me because I got organization rules among team (Ext. 58: 1).

Extract 34

LS helped me a lot in terms of observing students and observing my teaching practices a lot. In that way I am not accusing students if they don't learn. I am blaming myself for their lack of learning (Ext. 73: 3).

The second code in ranking in terms of frequency and relevancy is "collaboration". A total of 8 quotations were linked to the code and the percentage is %19,5. The coefficient value which is 0,03 indicates that it is the second code in terms of strength of association. The following two extracts are the samples for "collaboration" code.

Extract 35

Before LS I used to prefer working alone. Now I work with participant 6 cooperatively when we go to practicum school. Sometimes, we are team-teaching in the same classroom. I really take pleasure from team-teaching and LS triggered it (Ext. 67: 57).

Extract 36

I would never go and ask for help from the English teachers in the teachers' room during practicum. Now, I overcame it after LS process. I can go for help easily now (Ext. 67: 28).

As mentioned before, a significant decrease is obvious in the frequency distribution of the following codes. The code ranked third in frequency count is "research-based thinking" label as presented in table 36. The number of quotations attached to the code is 5 and it corresponds to % 12,1 of the total quotation number which is 41.

"Research based thinking" code was followed by "perception change" code in terms of ranking based on frequency and the strength of association. A total of 4 data segments were attached to the selected code and the percentage of the association is % 9,7.

The following four codes "multidimensional class", "traditional teaching", "theory practice" and "traditional teaching VS lesson study" have the same groundedness on the basis of data presented in the table. 2 quotations were associated with each code label and the percentage value for each association is % 4,8.

The codes with the lowest groundedness and relevance are "focus on student learning", "critical moments" and "threatening effects of lesson study" as given in the

table above. Only one quotation or data segment was associated for each code label and their ratio according to the total number of quotation is % 2,4.

The table further presents that no quotations or data segments belonging to Participant 3 were linked to “professional development” and “reflective teaching” codes.

4.3.6. The Impact of Lesson Study on Participant 4’s Professional Development

The following table displays the distribution of codes that reveals Participant 4’s professional development. The table includes groundedness of each code label, their percentage, and co-efficient value as in the preceding tables.

Table 39.

Participant 4’s Professional Development

Codes	N	%	Co-Efficient
critical moments	11	26,1	0,02
lesson study experience	9	21,4	0,02
collaboration	5	11,9	0,01
traditional teaching	5	11,9	0,01
multidimensional class	4	9,5	0,01
focus on student learning	2	4,7	0,01
perception change	2	4,7	0,00
professional development	2	4,7	0,00
traditional teaching vs lesson study	1	2,3	0,00
reflective teaching	1	2,3	0,00
threatening effects of LS	N/A	N/A	N/A
research based thinking	N/A	N/A	N/A
reflective teaching	N/A	N/A	N/A
TOTALS	42	100	

The table presents that 42 data segments were associated with the codes under professional development theme for Participant 4. The distribution of codes is not consistent since the groundedness decreases sharply after the first two codes as in Participant 3’s codes concerning professional development.

The first two codes that have been applied to the data segments most often are “critical moments” and “lesson study experience” codes respectively. Of 42 quotations and data segments that are linked to the codes under professional development theme, 11 of them were associated with “critical moments” code. The percentage of the association is % 26,1 which indicates that more than one fourth of the quotations about professional

development belonging to Participant 4 were linked to the selected code label. The following extracts are references for “critical moments” code that are linked to the data segments produced by Participant 4.

Extract 37

I was going to give phrases first and then ask to the students using flashcards. I had a dilemma at that moment and I asked to the students directly but the students participated in the activity and I was not expecting it. I was planning to skip the activity to do it later but the students were able to do it and I let it go in this way (Ext. 55:31). (The participant is commenting on a critical moment that he/she experienced during the RL that he/she conducted).

Extract 38

When the game activity ended in draw, I could not know what to do. I was not expecting it to happen but it did. Nothing came to my mind at that moment (Ext. 55:44). (The participant is commenting on a critical moment happened in the follow up activity during the RL that he/she conducted).

The code ranked second in terms of frequency and relevancy is “lesson study experience” label. The table clearly presents that there are 9 quotations associated with the code and the corresponding percentage of the association is % 21,4. The co-efficient value which is 0,02 is the same with the previous relationship. The extracts stated by Participant 4 below represent the data segments associated with “lesson study experience”.

Extract 39

Thanks to the LS that even if I have not conducted a lesson yet, I can assume possible issues in terms of weakness and strength while planning a lesson and I am aware of the importance of improving my self-autonomy and lifelong learning (Ext. 22: 29).

Extract 40

With the help of the Lesson Study, I added new and further experiences to my professional development other than practicum so it makes me more confident and I feel more prepared for the future which is extremely important for prospective teachers (Ext. 57: 7).

Similar to the findings of Participant 3's professional development, a significant decrease is evident in the number of quotations that are linked to the other codes as presented in Table 37. The codes "collaboration" and "traditional teaching" were applied to the data segments 5 times and the proportion of the associations for both codes is % 11,9. The co-efficient value of the relation is 0,01 which indicates that the relation is not strong.

The code ranked fifth in the order is multidimensional class as the table represents. The code was linked to the quotations and data segments in four instances and the percentage of the association is % 9,5.

The following five codes are the ones that have lowest frequency and relevancy concerning professional development of Participant 4 as the table figures. The codes "focus on student learning", "perception change" and "professional development" were applied to the data segments and quotations in two instances as it is shown in the table and the percentage of associations for each label is % 4,7 when they are proportioned to the total quotation number. The remaining two codes "reflective teaching" and "traditional teaching vs lesson study" were used just for once to associate with the quotations and it corresponds to % 2,3 of the total quotation number which is 42.

The table further presents that no data segments from Participant 4's statements were referenced to "threatening effects of lesson study", "reflective teaching" and "theory-practice code labels since it is evident in the table that the associations are not applicable.

4.3.7. The Impact of Lesson Study on Participant 5's Professional Development

The following table illustrates the distribution of codes under professional development theme attached to the quotations that are stated by Participant 5.

Table 40.

Participant 5's Professional Development

Codes	N	%	Co-Efficient
collaboration	10	17,2	0,02
lesson study experience	9	15,5	0,01
perception change	7	12	0,01
focus on student learning	7	12	0,01
multidimensional class	6	10,3	0,01
traditional teaching vs lesson study	4	6,8	0,01
critical moments	3	5,1	0,01
professional development	3	5,1	0,01
traditional teaching	3	5,1	0,01
theory-practice	3	5,1	0,01
research based thinking	2	3,4	0,00
threatening effects of LS	1	1,7	0,00
reflective teaching	N/A	N/A	N/A
TOTALS	58	100	

The table presents that the distribution of codes for participant 5 in terms of groundedness and relevancy is rather more consistent when it is compared with the other participants. 58 quotations and data segments related to Participant 5 were attached to the code labels in professional development theme and except “reflective teaching” association exists for the other 12 codes in the theme as displayed by the table.

The code with the highest groundedness and relevancy is “collaboration” according to the table. The association between the code label and the data segments belonging to Participant 5 was observed in 10 instances and the percentage of the association is % 17,2. The table further presents that the co-efficient value is 0,02 which is relatively small. This could be attributed to total quotation number linked to Participant 5 which is 568. The following extracts were given to illustrate the association between “collaboration” code and relevant quotations.

Extract 41

We are inexperienced and young teachers trained with the latest approaches and strategies. We can rely on the experience of older teachers when we collaboratively work together. If we struggle with certain activities or strategies, we can rely on their experience. In a similar way, they can benefit from us and we

may help those old teachers who rely on traditional ways to teach something. So, working collaboratively is always useful (Ext. 4: 22).

Extract 42

Defining myself as a one man teacher solved problems until a certain stage. However, collaborating with other teachers helped to open up my horizon by getting different ideas and solutions for different kinds of issues. In this respect, LS is an allround tool with many benefits essential for all teachers (Ext. 68:6).

The second code in ranking in terms of groundedness is “lesson study experience”. A total of 9 data segments were attached to the code label as presented by the table which corresponds to % 15,5 of the total associations which is 58. The co-efficient value of the relation is 0,01 which states that an association exists in each hundred occossion. The extracts below represent the association between “lesson study experience” code and relevant quotations.

Extract 43

LS showed me how much work and effort is needed to create a well organized lesson plan. Besides, it made me aware of the different styles and approaches to teaching as well as the responsibility to cover every centimetre by including each student into the learning process (Ext. 20: 15).

Extract 44

LS was a valuable experience for me and I wish it would continue longer. We would investigate other problems that we come across in teaching such as questioning and giving positive, negative feedback (Ext. 67: 53).

Two codes hold the third rank in terms of frequency count in the distribution as given in the table above and they are “focus on student learning” and “perception change” labels. It is clear that 7 quotations were linked to both codes and the overall percentage of the association is % 12. The co-efficient value for both codes is 0,01. The extracts below stand as samples for the association between “focus on student learning” and “perception change” codes and relevant data segments.

Extract 45

LS has a problem solving approach to teaching. And those problems are student learning oriented. We have been investigating disengagement of students and trying to fix issues related to demotivated students. (Ext. 4: 83).

Extract 46

Think it like a car. When you turn on the headlights you just see your front. You never see any further. It is the same in the classroom. As a teacher you just focus your attention to those students sitting in front who are very active. LS triggered to shift our attention to the back row of the classroom which is occupied by low achiever students with certain problems related to learning. I would never look back row in my practicum but yesterday I constantly observed them (Ext. 4: 41).

The following code “multidimensional class” recurred 6 times as presented in the table which indicates that the code was associated with the data segments generated by Participant 5 in 6 occasions. The percentage of the code frequency when compared with the other code labels is % 10,3. The co-efficient value of the association which describes the relevancy between code and quotations is 0,01. The extract below is provided to exemplify the association between “multidimensional clas” code and the data segments associated.

Extract 47

There were two or three students who were jumping on each question that I asked. They were impulsive students I guess. They were giving answers immediately and I couldn't stop it. I was thinking of telling them to stop but I didn't want to ruin the flow of the class and I let it flow in that way. It happened naturally. I didn't plan it (Ext. 30: 24). (The RL teacher is commenting on an event he experienced during instruction).

The frequency of the following code labels is decreasing significantly when the frequency percentage given in the table is observed. It is clear that “traditional teaching vs lesson study” was linked to 4 quotations and the percentage of the relation is % 6,8.

The following four codes which were labelled as “criticla moments”, “professional development”, “traditional teaching” and “theory-practice” were linked to the quotations

in 3 occasions as the table illustrates and the percentage of each association is % 5,1 when their frequency is proportioned to the total quotation number about professional development. The co-efficient value of each association is 0,01 which represents low relevancy.

The codes with the lowest groundedness and relevancy are “research based thinking” and “threatening effects of lesson study” respectively as presented in the table. “Research based thinking” code was applied to two quotations belonging to participant 5 which is equal to % 3,4 of the total quotation number. The code “threatening effects of lesson study” was observed only in one occasion as the table figures. The table further presents that the participant did not produce any data segments concerning “reflective teaching” since code, quotation association is not applicable.

4.3.8. The Impact of Lesson Study on Participant 6’s Professional Development

The table given below presents the findings concerning professional development of Participant 6 as a result of Lesson Study intervention. The table included the frequency distribution of codes within the theme together with the percentage and coefficient value of each code labels.

Table 41.

Participant 6's Professional Development

Codes	N	%	Co-Efficient
threatening effects of lesson study	8	14,8	0,02
collaboration	7	12,9	0,01
critical moments	7	12,9	0,01
lesson study experience	6	11,1	0,01
perception change	6	11,1	0,01
multidimensional class	5	9,2	0,01
focus on student learning	4	7,4	0,01
professional development	4	7,4	0,01
reflective teaching	3	5,5	0,01
traditional teaching	2	3,7	0,00
research based thinking	1	1,8	0,00
theory-practice	1	1,8	0,00
traditional teaching vs lesson study	NA	NA	NA
TOTALS	54	100	

The distribution of codes for participant 6 is more consistent than the distribution of codes belonging to Participant 1,2,3,4 and 5 as presented in the table above. It can be seen that 54 quotations were linked to the codes within professional development theme. Except “traditional teaching vs lesson study code” label, association between the other 12 codes in the theme and the data segments or quotations exists.

The code that is most frequently applied to the data is “threatening effects of lesson study” according to table 39. The code has been linked to the data segments produced by Participant 6 for 8 times and it is most relevant code in the data since the percentage of the association is % 14,8. The co-efficient value of the association is 0,02 that is relatively a small value because of the total number of quotations assigned to the codes in the whole study which is 477. The extracts given below are samples for the code and quotation association.

Extract 48

I observed that we were six or seven teachers in the same classroom because of the nature of lesson study but the students may feel threatened because of our existence. (Ext. 4: 61).

Extract 49

Especially at the beginning of the RLs, most of the students were ashamed, shy and disturbed because we were eight teachers in the classroom and they felt controlled even if we didn't interfere in the flow of the lesson (Ext. 21: 9).

Two codes share the second rank in the order on the basis of frequency count and they are “collaboration” and “critical moments” as presented in the table. Both codes were applied to the quotations in 7 cases and the percentage of association for each code label is % 12,9. The extracts below stand as representatives for the association for each code label.

Extract 50

While I am planning for the lesson, or conducting the classroom, I am not enough myself only to observe students, determine their weaknesses, focus on their learning. It doesn't matter whether the class is crowded or not. However, when we work in groups as in here, my friends or colleagues can see the things that I miss. (Ext. 67: 16).

Extract 51

I didn't know what to do. I was shocked totally. Nothing happened as I expected or planned. I waited a bit but I got nothing again. I was lost completely. Thanks to this process that I realized such situations may occur at all times (Ext. 43: 1).

The code labels “lesson study experience” and “perception change” ranked third together in terms of frequency count as both codes linked to the data segments in 6 instances. The table displays that the percentage of each code value is % 11,1 when proportioned to the total number of quotations associated with the code labels in the theme. The co-efficient value for both codes is 0,01 as given in the table above. The following extracts from Participant 6's data are given to exemplify association between the selected codes, lesson study experience”, “perception change” and relevant quotations.

Extract 52

I want to say that there are many benefits of LS experience for me especially in lesson planning and implementation of it. As teacher candidates we don't have enough experience for even an ordinary lesson plan. LS helped me a lot in such issues (Ext. 6: 6).

Extract 53

At first, I considered classroom size consisting of 10 pupils would be an advantage for to conduct the RL but it turned out disadvantage because I had not considered their lacks and needs. Also, I saw that school location, social status of the students, and other factors affect students' academic achievement (Ext. 44: 28).

The code following the order is "multidimensional class" according to the table above. A total of 5 data segments were attached to the code label and the percentage of the frequency is % 9,2. The strength of association is 0,01 which implies weak association between the code and the quotations. The following extract is a sample for the association between the code and the relevant quotation.

Extract 54

I understand that I should have extra B plan or backup strategies for unexpected events because of the multidimensional nature of classroom (Ext. 21: 18).

The codes "focus on student learning" and "professional development" are ranked fifth together in the order of frequency since both codes were associated with the data segments in four occasions. The percentage of association for both code label is 7,4 and co-efficiency value is 0,01 for each.

Similarly, the relevancy for "reflective teaching" code is quite low because the code-quotation frequency of the association is 3 and the percentage of the association is 5,5. As in the previous relation, the co-efficient value of the association between the selected code and relevant data segment is 0,01.

The codes with the lowest groundedness level are "traditional teaching", "research based thinking" and "theory-practice" labels respectively as given in the table. Traditional teaching code was linked to data segment in 2 occasions while the other two codes "

research-based thinking” and “theory-practice” was observed only in one occasion. As mentioned before, the code “traditional teaching vs lesson study” was not observed in the data belonging to Participant 6 as presented in the table.

4.4. The Impact of Lesson Study on the Personal Development of Preservice Teachers

This part presents the findings concerning elicited codes from participating preservice teachers’ data sets, the frequency count of each code label which is known as groundedness and the number of direct or indirect links that each code has. The relationship among the codes within the theme was presented with network view which provides visual representation of the association among the codes. In addition, the findings about the personal development of each participating preservice teacher were given separately and they are exemplified with relevant quotations.

4.4.1. The Distribution of Codes in Personal Development Theme

The table given below displays the distribution of codes within personal development theme on the basis of data sets collected during pilot study, RL 1, RL 2, RL 3, RL 4 and post application documents. The table includes the the number of instances for each code label and their percentages depending on two totals. The first percentage presents the ratio of the number of instances for the code to the total number of quotations associated in each data set. The second percentage represents the ratio of the number of instances for the code to the total number of quotations associated with the selected code.

Table 42.

Personal Development Theme

	Pilot			RL1			RL2			RL3			RL4			Post App			TOTALS (B)	%
CODES	N	%/A	%/B	N	%/A	%/B	N	%/A	%/B	N	%/A	%/B	N	%/A	%/B	N	%/A	%/B		
teacher judgement	136	55	23,3	129	46,7	22,1	110	54,4	18,9	157	69,4	26,9	47	74,6	8	3	6	0,5	582	54,6
teacher adaptability	44	17,8	14,3	107	38,7	34,9	85	42	27,7	60	26,5	19,6	7	11,1	2,2	3	6	0,9	306	28,7
teacher creativity	42	17	60,8	18	6,5	26	4	1,9	5,7	4	1,7	5,7	0	0	0	1	2	1,4	69	6,4
self-awareness	9	3,6	18	8	2,8	16	0	0	0	0	0	0	2	3,1	4	31	62	62	50	4,6
teacher rapport	15	6	34,8	10	3,6	23,2	3	1,4	6,9	4	1,7	9,3	4	6,3	9,3	7	14	16,2	43	4
self-confidence	1	0,4	7,1	4	1,4	28,5	0	0	0	1	0,4	7,1	3	4,7	21,4	5	10	35,7	14	1,3
TOTALS(A)	247	100	23,2	276	100	25,9	202	100	18,9	226	100	21,2	63	100	5,9	50	100	4,6	1064	100

The table presents that “teacher judgement” is the code that is most frequently associated with the quotations in personal development theme. A total of 582 data segments were linked to the code and it is equal to % 54, 6 of the total quotation number that are linked to the code labels in the theme.

When the table is analysed on the basis of the data sources, it is seen that a total of 247 data segments and quotations are attached to the code labels within personal development theme as mentioned before and 136 of them were associated with teacher “judgement” code which is equal to % 55 of the total number quotations assigned to the codes in pilot study. In other words, more than half of the code-quotation association in pilot study is about “teacher judgement”. Another finding is that of 582 associations with the code “teacher judgment” % 23,3 is referenced in the pilot study.

In RL 1, a total of 129 quotations were linked to the code label “teacher judgement” and the number corresponds to %46,7 of the code-quotation link associated in RL 1 as given in the table. It is also displayed that the number corresponds to %22,1 of the total number of quotations associated with “teacher judgement” code which is 582.

In RL 2, 110 quotations were referenced with “teacher judgement” code according to the table and the percentage of the association is %54,4 of the total number obtained in second RL. When the number is proportioned to the second total which is 582 quotations, it corresponds to % 18,9 of the asocciations linked to “teacher judgement” code.

The highest number of associations between the quotations and the code “teacher judgement” was obtained in RL 3 as the table presents. A total of 157 data segments were associated with the given code and the number is equal to % 69,4 of the total code-quotation association obtained in RL 3 and % 26,9 of the total number linked to “teacher judgement” code.

In RL 4, 63 quotations were linked to the codes within personal development theme and 47 of them were associated with “teacher judgement” code. The number is equal to % 74,6 of the total number of code-quotation association in RL 4 and it also corresponds to % 8 of the total number of quotations referenced with “teacher judgment” code label.

The lowest number of associations between the code “teacher judgement” and the quototations were obtained in post application documents as displayed in the table above. It is obvious that only 3 quotations were referenced with the selected code label and it corresponds to % 6 of the total number of code-quotation association obtained in post

application documents and % 0,5 of the total number of quotations linked to the code label “teacher judgement”.

The code ranked second in terms of groundedness is “teacher adaptability” as presented in the table. It is obvious that a total of 306 quotations were linked to the selected code label and the number represents % 28,7 of the total quotations number associated with all codes in personal development theme.

With respect to the distribution of code label “teacher adaptability” on the basis of data sources, it is presented in the table that, 44 data segments were linked to the code in the pilot study and the number is equal to % 17,8 of the quotations linked to the codes in the pilot study. The table further presents that 44 instances of association between the quotations and the code “teacher adaptability” corresponds to % 14,3 of the total number of quotations associated with the selected code.

The highest number of associations between “teacher adaptability” code and the relevant quotations was observed in RL 1 as displayed in the table. A total of 107 data segments were linked to the code in the first RL and the number corresponds to % 38,7 of the total associations linked to the codes within the theme. The table also presents that % 34,9 of the 306 quotations attached to code label “teacher adaptability” was evidenced in RL 1.

The number quotations to which “teacher adaptability” code is applied in RL 2 is 85 as given in table 40. A total of 202 quotations were linked to the codes in RL 2 and the percentage of the the code-quotation association of “teacher adaptability” label is % 42. When the number is proportioned to the total number of associations with “teacher adaptability” code, it corresponds to % 27,7 of the total.

The frequency counts of the following codes decline sharply as presented in the table. The code ranked third in terms of groundedness is “teacher creativity”. The code was associated with the quotations across data sources in 69 occasions. The table presents that the code was most frequently linked to the data segments in the pilot study. The number of occurrences of the code in the pilot study is 42 which corresponds to % 17 of the total number of codes-quotations associations in the pilot study. The percentage of “teacher creativity” code in pilot study forms % 60,8 of the total number of code occurrence.

In RL 1 the code was observed in 18 occasions and the number is equal to % 6,5 of the total number in the primary documents within RL 1. When the proportion of code to

the total number of associations with “teacher creativity” code is investigated, it can be seen that the percentage is % 6,5 as presented in the table.

The frequency of the code declines significantly in the following applications. It is obvious that the occurrence of “teacher creativity” code exists in 4 occasions in RL 2 and in RL 3. In this sense, the percentage of code-quotations association is % 5,7 when the number is proportioned to the total associations linked to “teacher creativity” code for both applications. Concerning frequency across data sources, the percentage of code occurrence is % 1,9 in RL 2 and % 1,7 in RL 3.

In RL 4, the code “teacher creativity” is not associated with any quotations or data segments as given in the table. In post application documents, the code was observed in just one occasion. As a result, the percentage of the selected code occurrence is % 2 when proportioned to the total number of quotations in post application documents and it is % 1,4 when it is proportioned to total associations linked to the code.

The code that is ranked four in terms of groundedness is “self awareness” as represented by the table. The code occurred in 50 occasions and the number is equal to % 4,6 of total quotations associated with the codes in personal development theme.

Across data sources, the code was observed in 9 occasions in the pilot study and the number is equal to % 3,6 of the total codes count in the application. The table further displays that 9 occurrences of “self awareness” code in the pilot study corresponds to % 18 of total number of occurrences of the selected code.

In RL 1, the same code occurred in 8 occasions and the percentage of the association of the code with the quotations is % 2,8 on the basis of the total codes-quotations associations in RL 1 which is 276. When the number of occurrences is proportioned to the total number of occurrences for “self awareness” the obtained value is % 16 as given in the table.

In RL 2 and in RL 3 the code “self awareness” was not attached to any data segments or quotations as the table presents.

The code was associated with the quotations in 2 occasions in RL 4 and the percentage of the association is % 3,1 in the application when it is proportioned to the total number of associations in RL 4. The table further presents that the frequency count of the code in RL 4 corresponds to % 4 of the total number of associations with “self awareness” code label.

The highest frequency of the code was observed in post application documents as the table presents. It can be seen that the code “self awareness” was referenced in 31 instances

in post application documents. The percentage of the association on the basis of the total codes-quotations association in post application documents is % 62. Similarly, when the number of occurrences in post application documents is proportioned to the total number of occurrences for “self awareness” code label, the percentage is % 62.

The code that is ranked fifth on the basis of frequency count is “teacher rapport”. The total number of occurrences for the code across data sources is 43 as the table presents and the number corresponds to % 4 of the total number of associations with the codes within personal development theme.

The code is most frequently evidenced in the pilot study according to Table 40 since the frequency percentage of the code occurrence in the pilot study is % 34,8 when compared with the total number of occurrences. The number of occurrences for the code “teacher rapport” in the pilot study is 15 and the number is equal to the % 6 of the total number of associations with the codes in pilot study documents.

In RL 1, the code was evidenced in 10 occasions as given in the table. The percentage of frequency distribution of “teacher rapport” code is % 3,6 on the basis of the total number of associations with the codes in the documents in RL 1. When the number is proportioned to the total number of associations with “teacher rapport” code, it corresponds to % 23,2 of the total.

In RL 2, the code “teacher rapport” was associated with the quotations in 3 instances and the number is equal to the % 6,9 of the total associations with the code. When the number is compared with the total number of associations in RL 2, the percentage is % 1,4.

In RL 3 and in RL 4, “teacher rapport” was observed in 4 occasions as displayed by the table. The number corresponds to % 9,3 of the total associations with the given code. With respect to the total number of links with the codes across data sources, the number is equal to % 1,7 of the total number in RL 3 and % 6,3 of the total number in RL 4.

In post application documents, the code “teacher rapport” was evidenced in 7 instances as presented by the table. It is clear that the percentage of the association is % 16,2 when it is proportioned to the total number of associations between “teacher rapport” code and quotations and it corresponds to % 14 of the total associations in post application documents.

The code with the lowest groundedness within personal development theme is “self confidence” as displayed by the table and the total number of occurrences of the code is

14 which is equal to only % 1,3 of the total number of code-quotation associations in the theme.

Concerning frequency distribution across data sources, it can be seen that the code was most frequently evidenced in post application documents. The number of occurrences for the given code in post application documents is 5 and the number corresponds to % 35,7 of the associations with the given code. The table further presents that the number is equal to % 10 of the total number of associations between codes and quotations in post application documents.

The second data source that the code “self confidence” was most frequently observed is RL 1 as given in Table 40. The number of occurrences for the given code is 4 which represents % 28,5 of the total number of associations with “self confidence” code label. Additionally, the number corresponds to % 1,4 of the total codes-quotations links in RL 1.

The code was observed in 3 instances in RL 4. The percentage of the association is % 21,4 according to the total number of associations with the given code and it is % 4,7 when compared with the total number of associations in relevant data sources.

The code was referenced only once in the pilot study and RL 3 as presented by the table and the number corresponds to % 7,1 of the total number of associations with “self confidence” code label for each.

Lastly, the code was not attached to any quotations or data segments in RL 2 as evidenced by the table.

Briefly, it could be stated that the code that is most frequently attached to the data segments is “teacher judgement” which represents more than half of the associations between quotations and the codes within personal development theme. At the other end, the code label “self confidence” stands with the lowest frequency of code-quotation association. The table further presents that it is not possible to talk about a linear decrease or increase concerning the frequency distribution across data sources.

4.4.2. Network View of Personal Development Theme and Involving Codes

The following figure represents the graphical representation of codes subsumed by personal development theme and their links with the theme and other codes on the basis of the participants’ quotations. The figure also represents the groundedness and density of each code within the theme.

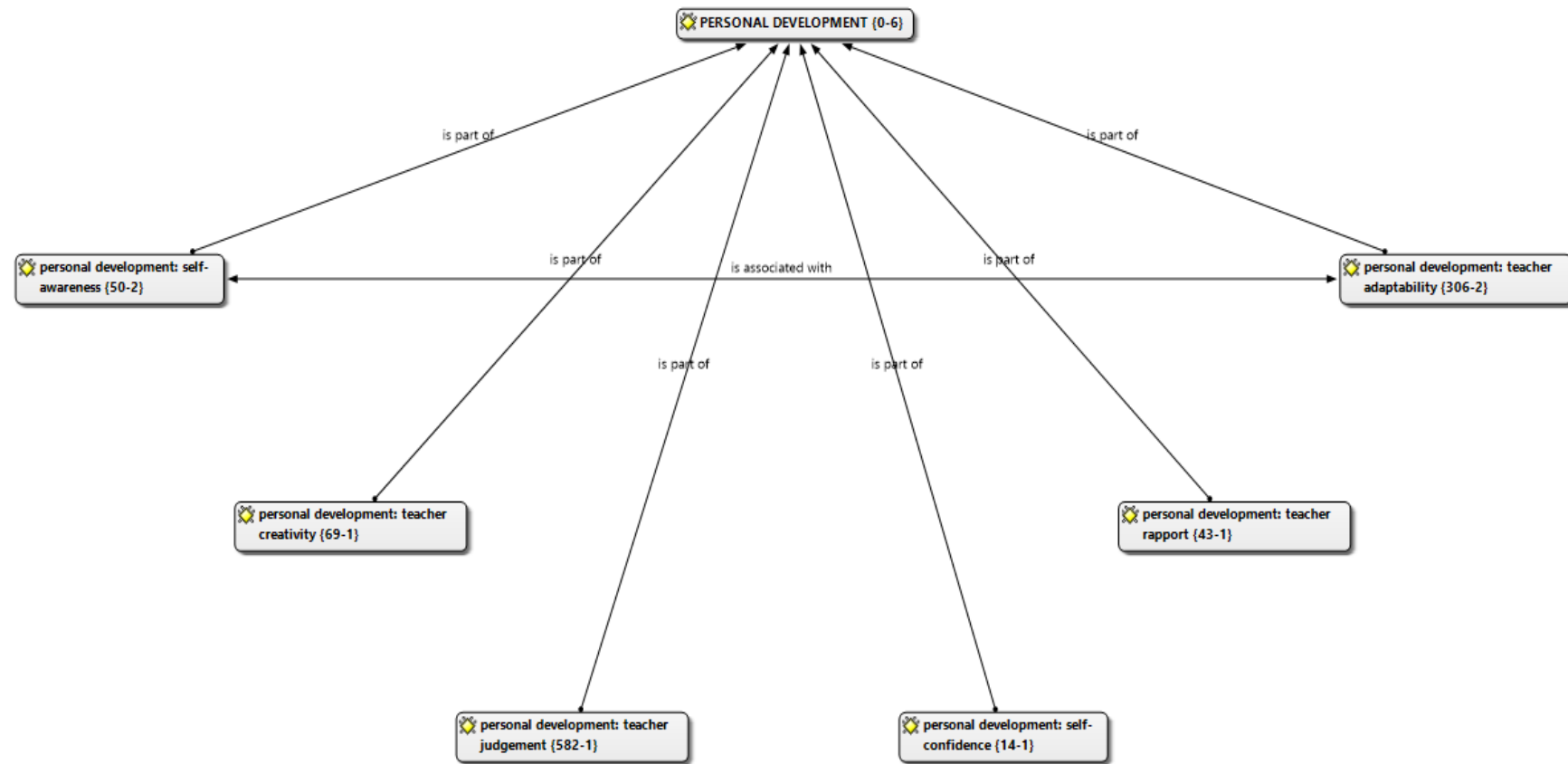


Diagram 5. Network view of personal development theme

The network view above presents the visual representation of the codes involved by personal development theme, the frequency count of each code label and the relevancy among codes. It can be seen that there are unidirectional and bidirectional arrows among codes which represents non-symmetrical and symmetrical relations respectively.

The code which has the highest groundedness level is “teacher judgement” as it is already discussed in the preceeding part. The groundedness of the code is 582 which means that the code was associated with 582 data segments in the study. It is also evident that the density value of the code is 1 which implies that the code has only one relation with the other codes. That relation is non-symmetrical and it represents that “teacher judgement” code is part of personal development. The following extract are given to exemplify the association between the quotations and the given code label.

Extract 55

The students have learnt certain things. They are familiar with Simple Present Tense. We cannot teach if clause first conditional if they haven't learnt Will future because there is going to be a gap between RL objectives and background knowledge. We can not reach the objectives. We should follow the curriculum. We should check the curriculum, find out where they are and plan the RL on the basis of Krashen's Input Hypothesis. I mean just a bit beyond their current level. (The participant is putting forward his ideas concerning RL content in pilot study lesson planning meeting) (Ext. 1: 16).

Extract 56

I have observed that if the teacher is conducting the class using smartboard, the students are giving their full attention to it. They do not actively engage in the lesson. They just sit passively and listen and watch (The participant is criticizing the idea of organizing technology integrated instruction for the RL in pilot study lesson planning meeting) (Ext. 1: 40)

The figure displays that the code label ranked second in terms of frequency of occurrence is “teacher adaptability”. The code has been applied to the quotations in 306 instances and there are two links to other codes as mentioned before. The first link suggests that “teacher adaptability” code is the part of personal development since the code is subsumed by the theme. It can also be seen that the code has an association with

“self awareness” code which indicates that both codes have co-occurred in one instance. The extracts given below show evidences of association between “teacher adaptability” code and quotations and co-occurrence of “teacher adaptability” and “self-awareness” code labels respectively.

Extract 57

I can pick the activities which are suitable for the students now and I can eliminate the activities and the books which are not suitable. Also I am able to adapt the certain activities depending on students’ needs and interests (Ext. 4: 10).

Extract 58

We prepared activities on the basis of students needs and types instead of using textbook and also adapted certain practices in order to respond to the needs of those students. In that way, I realized that minor changes in the structure of activities planned may contribute a lot to the understanding of learners. In this way, I can develop activities and materials depending on my students needs much better now. (Ext. 72: 5).

The code that is ranked third is “teacher creativity” depending on the frequency count as mentioned before and the code is attached to 69 quotations which shows the groundedness of the code. Concerning density, the code has one directed link as in the the other codes within the theme that is the link between the code and the theme presenting that the code label “teacher creativity” is part of personal development. The extracts given below illustrate the association between the code label “teacher creativity” and the relevant data segments.

Extract 59

We can organize group work activity because not all the children are the same in terms of affective considerations and language proficiency. While some students are quite willing to answer the questions, some may prefer to remain in the background. (The participant is putting forward an idea in order to engage all students into the activity during lesson planning meeting for the pilot study RL) (Ext. 1: 8).

Extract 60

I remember that one component of our overarching goal is to contribute students' socio-cultural development. And also we want to increase students motivation. Why don't we prefer to organize a role playing activity depending on the lesson content? I believe that the students will be motivated when they see that they are able to speak English in front of audience. As an example, an Englishman and an American would speak about certain topic. It is also socio-cultural as you can imagine. (The participant is suggesting an activity in line with the overarching goal during lesson planning meeting for the pilot study RL) (Ext. 1: 132).

The fourth code involved by personal development theme is "self awareness" on the basis of groundedness and density level. The code is linked to 50 data segments and has relationship with two other labels as it is already discussed. One link represents the directed link between the code and the theme indicating that the code is part of the theme. The second association represents non-directed link between "self awareness" code and "teacher adaptability" code as mentioned before. The following extract is an example of the association between "self awareness" code and relevant quotation.

Extract 61

We work quite hard as LS group and by virtue of LS I have increased my awareness of how to observe and measure the weakness and strength of any student. (Ext. 21: 29).

The fifth code subsumed by the theme is "teacher rapport" as given in the figure and the frequency count of the code which shows the groundedness is 43. The code has one link with personal development theme since the code is involved by the theme and part of it as in the other code labels. The extract below stands as an example for the association between "teacher rapport" code and relevant quotation.

Extract 62

While conducting a RL or observing it, I felt so happy to be at schools because (hopefully) I will be a teacher and the schools will be my second home and the students will be my sisters and brothers. Therefore, it is important to be in a good relationship with students and take care of their wishes and interests. (Ext.59: 8).

The last code belonging to personal development theme with the lowest frequency is “self confidence” as represented by the figure given above. The code was associated with only 14 quotations as mentioned before and has only one directed link with the theme. The following extract represents the association between “self confidence” code and attached quotation.

Extract 63

Thanks to LS, even if I have not conducted a full lesson yet, I can assume possible issues such as weakness and strength of the students before implementing and I am aware of the importance of taking precautions against them. I also consider the importance of improving my self-autonomy and lifelong learning. (Ext.22: 43).

4.4.3. The Impact of Lesson Study on Participant 1’s Personal Development

126 quotations were attached to the code labels within personal development theme from Participant 1’s quotes and the following codes-cooccurrence table represents the distribution of codes and their coefficient value which measures the strength of relation.

Table 43.

Participant 1’s Personal Development

Codes	N	%	Co-Efficient
teacher judgement	72	57,1	0,08
teacher adaptability	37	29,3	0,06
self-awareness	8	6,3	0,02
teacher creativity	4	3,1	0,01
teacher rapport	3	2,3	0,01
self confidence	2	1,5	0,01
TOTALS	126	100	

It is clearly presented in the table that more than half of the quotations referenced to the code labels in personal development theme is associated with “teacher judgement” code for Participant 1. The frequency count of the code is 72 and it corresponds to % 57,1 of the total quotation number linked to the codes. The co-efficient value of the association is 0,08 which represents a strong relation between the code and the relevant data

segments. The following extracts are the samples for the association between “teacher judgement” code and relevant data segments.

Extract 64

It is vitally important to give instructions properly. Even the teacher should act out the instruction while giving it and check whether the students have understood or not. (The participant is commenting on the reason behind why the planned activity was not implemented properly in pilot study RL (Ext.2: 54).

Extract 65

I think group members should have chosen their representatives because they whispered to each other that the representative were not able to answer the questions correctly (The participant is commenting on the group work activity that he/she observed in lesson observation sheet) (Ext.5: 17).

The frequency of the second code, “teacher adaptability” declines sharply and falls almost half as the table displays. The code was linked to the quotations in 37 instances as the figure represents and the number represents % 29,3 of the total quotations number references in the theme. The co-efficient value of the association is 0,006. The extracts below are given to exemplify the association between “teacher adaptability” code label and the relevant quotations.

Extract 66

Why don't we do in this way? First of all, we can find a simple documentary to watch to catch their attention. Then, we can project a picture of the earth on the board. Later on, we can hang the flashcards on the board. (The participant is offering some changes in the implementation of the RL during post lesson discussion because of certain problems faced) (Ext.43: 157).

Extract 67

The students may check their worksheets and correct the mistakes while they are watching narrative activity (The participant is suggesting to adapt the activity in order to provide a smooth transition to the following activity.) (Ext.37: 11).

The recurrence of the following four codes is quite limited when compared with the first two codes as the table represents. It is obvious that the code “self-awareness” was observed in 8 quotations and the frequency corresponds to % 6,3 of the total quotation number which is 126. The table further presents that the co-efficient value of the association between “self awareness” code and the relevant quotations is 0,02. The following extract is a representative for “self awareness” code and relevant data segment link.

Extract 68

Honestly speaking, I have learned how to reflect on my classroom practices and how to write reflection during LS process. (Ext.67: 66).

The code that is ranked fourth on the basis of frequency count is “teacher creativity”. It can be seen that the frequency count of the code is 4 and it is equal to % 3,1 of the total number of quotations attached to the codes within personal development theme. It is also obvious that the co-efficient value of the relation between the code and the quotations is 0,01. The extract given below stands as sample for the association between “teacher creativity” code and relevant data segment.

Extract 69

During LS process, I have realized that the coursebook is not always essential. A teacher may create the content for the following lesson himself/herself. (Ext.67: 102).

The following code in the order is “teacher rapport as the table figures. It is evident that the code was observed in 3 instances and the code-quotations association corresponds to % 3,1 of the total quotation number that is 126. The co-efficient value of the association is quite low when compared with the first two codes that are “teacher judgement” and “teacher adaptability” respectively. The extract below represents the association between “teacher rapport” code and the relevant quotation.

Extract 70

Those who stood up to answer couldn't give answers. While they were still trying, you passed them. However, the children were emotionally lost. (The participant is criticising choosing involunteer students for the questions) (Ext.19: 63).

The code with the lowest frequency level is “self-confidence” as displayed by the table. The code was linked to the quotations in 2 instances and the percentage of the code-quotation association is % 1,5 when it is proportioned to the total. The co-efficient value of the association which is 0,01 is the lowest as the frequency count as given in the table. The following extract is one sample of the two associations.

Extract 71

I used to be afraid of getting into classroom thinking of what to plan and how to instruct but now I feel quite comfortable (Ext.67: 59).

4.4.4. The Impact of Lesson Study on Participant 2’s Personal Development

The table given below displays the impact of LS on Participant 2’s personal development. The table presents the total quotation number referenced to the codes within the theme, the frequency distribution of each code, their percentage and co-efficient value.

Table 44.

Participant 2’s Personal Development

Codes	N	%	Co-Efficient
teacher judgement	143	47,5	0,13
teacher adaptability	100	33,2	0,11
teacher creativity	31	10,2	0,04
teacher rapport	14	4,6	0,02
self-awareness	11	3,6	0,02
self confidence	2	0,6	0,00
TOTALS	301	100	

The second participant’s distribution of codes follow a similar pattern as in the first participant’s frequency distribution. It can be seen that a total of 301 data segments produced by Participant 2 are attached to the code labels within the theme and a sharp decrease exists after the first two codes which are “teacher judgement” and “teacher adaptability” respectively. It is also evident that the number of quotations associated with the codes within personal development theme is more than the double the total that belongs to participant 1.

The table presents the code with the highest frequency count is “teacher judgement”. The code was linked to the quotations in 143 instances and the percentage of the association is % 47,5 when the number is proportioned to the total number. The coefficient value which is 0,13 represents a strong relationship between the code and the data segments. The following extracts are given as sample for the code-quotation associations.

Extract 72

The group work did not reach its goal. The classroom environment is not proper for the group work activity because of the organization of the seats. The student that I observed was overweight a bit and he couldn't even turn back to participate in the group work activity (The participant is evaluating the feasibility of the group work activity implemented in the pilot study) (Ext.2: 43).

Extract 73

We have always dwelt on the structure. We haven't paid enough attention to the vocabulary. The students responded that we have learnt should and shouldn't during the interview at the end of the lesson. I think, we should change the format for the following RLs. We should add vocabulary as well. (The participant is criticizing the RL content) (Ext.29: 99).

The second code that is most frequently attached to the quotations is “teacher adaptability” as presented in the table. The frequency count of the code is 100 and the number is equal to % 33,2 of the total quotations concerning personal development. The coefficient value that is 0,11 represents a strong relationship between the code and the data segments as in the previous code. The following extracts are chosen to exemplify the association between “teacher adaptability” code and relevant quotations.

Extract 74

Why don't we extend the part that the students are active. The teacher just guides in here. He/she just instructs and blends in the background. The teacher stays at the background and the students are on the stage. What do you think? (The participant is offering to make certain changes in the structure of the following RL during post lesson discussion for the pilot study) (Ext.3: 31).

Extract 75

The activity should be a pair work activity because the classroom size is too big. In that way, we can also avoid chaos and the noise (The participant is reporting that the follow up activity should be adapted to pair work format on the basis of his/her observations in class observation sheet during RL four) (Ext.3: 31).

As in the previous partner's code distribution, the frequency decreases sharply in Participant 2's codes after the first two code labels. It can be seen that the code that is ranked third on the basis of frequency count is "teacher creativity". The code was evident in 31 occasions as given by the table and the percentage of the association according to the total is % 10,2. Similarly, the coefficient value decreases significantly to 0,04. The following extract are samples for the association between "teacher creativity" code and the relevant quotations.

Extract 76

We will divide the classroom into groups. We will arrange a cartonbox for each group. We will cover each box and they are going to be planets. We will distribute papers for each group to make paperplanes. They will make up sentences using should and shouldn't and throw the planes into the cardbox. Those who heave the most paperplanes in the box will save the World and win the game.(The participant is suggesting a creative game for the follow up activity.) (Ext 12: 48).

Extract 77

Why don't we create a narrative about the content? Something like a role play drawn on the table. There is no need to prepare a video using smartboard. The teacher acts out the narrative with the help of the students. What do you think about it? (The teacher is offering an activity about the content during pilot study lesson planning meeting) (Ext. 1: 42).

The fourth code in the order concerning personal development of Participant 2 is "teacher rapport as illustrated by the table. The code was observed in 14 instances and the percentage of the code is % 4,6 when proportioned to the total number of quotations associated with the codes in the theme. The co-efficient value of the association is 0,02 as presented by the table. The extract below illustrates the link between "teacher creativity" code and relevant quotation.

Extract 78

Sometimes we don't have to depend on the lesson plan itself because some of the situations can make the lesson plan change. For example, some students are shy and we are trying to make them more engaged and we want them to participate but they are shy and we can't apply it. So, we can make some changes in the lesson plan (Ext. 4: 105).

The code ranked fifth on the basis of frequency count is “self-awareness”. It can be seen clearly in the table that the code was linked to 11 data segments and the number corresponds to % 3,6 of the total quotation number which is 301. The co-efficient value which is 0,02 represents that the relationship between the code and the relevant quotations is weak. The following extract is an example of the associations between “self awareness” code and quotations produced by Participant 2.

Extract 79

When we went to practicum in the fall term, we used to observe our classmates and write reflection. This is his/her first activity, this is the second. He did this... So what? What am I supposed to deduce from all these? I used to write what I saw. It is not the same now. I realized that I didn't know how to observe (Ext. 67: 67).

The last code and the one with the lowest frequency count and co-efficient value is “self-confidence”. It is evident that the participant produced just a few quotes concerning “self-awareness” when compared with the other codes in the theme. The code was observed just in two instances and the number is equal to just % 0,6 of the total number of quotations concerning personal development. The following extract is one of the instances of the two associations between the code label and the relevant quote.

Extract 80

Thanks to the LS process because I am well aware that I am going to be a good language teacher and I will never lose my excitement in my professional journey. And for the future, if I have a chance like this one, I will readily take part in. (Ext. 59: 9).

4.4.5. The Impact of Lesson Study on Participant 3's Personal Development

The table given below represents the findings concerning personal development of Participant 3.

Table 45.

Participant 3's Personal Development

Codes	N	%	Co-Efficient
teacher judgement	60	64,5	0,08
teacher adaptability	16	17,2	0,03
self-awareness	8	8,6	0,03
teacher rapport	5	5,2	0,02
teacher creativity	3	3,1	0,01
self confidence	1	1,4	0,00
TOTALS	93	100	

An important finding on the basis of the table is that a total of 93 quotations were associated with the codes within personal development theme for Participant 3 and the number is quite a few when compared with the participant 2's quotations. Another important finding is that the frequency distribution follows the same patterns as in the previous partners since the codes with the highest frequency are "teacher judgement" and "teacher adaptability" respectively.

The table clearly displays that "teacher judgement" code is the most frequently occurred code compared to the other codes in the theme. The frequency count of the code is 60 which implies that out of 93 quotations referenced with the codes in the personal development theme, 60 of them are associated with "teacher judgement" code. The percentage of the association is % 64,5 and the co-efficient value is 0,08. The following extracts are the representatives for the association between the given code and the relevant quotations.

Extract 81

Why don't we give the instructions in the native language? At least just for the game activity because the game was quite complicated to explain in English and

we could have saved time. (The participant is commenting on his/her reflections concerning RL he/she conducted) (Ext. 3: 49).

Extract 82

There is something wrong with that. If you do not choose volunteer students first for your questions, they would lose their motivation and interests towards the lesson. (The participant is criticising the idea of choosing involunteer students for the questions during lesson planning meeting for the first RL) (Ext. 19: 61).

Although the code label “teacher adaptability” ranked second on the basis of frequency count, the occurrence frequency of the code is quite low when compared with “teacher judgement” code label. The table clearly presents that the code was observed in 16 occasions and it corresponds to % 17,2 of the total quotation number related to personal development of Participant 3. Similarly, the co-efficient value of the association declines sharply to 0,03 as illustrated by the table. The extracts given below illustrates the associations between the given code and the relevant data segments.

Extract 83

We should diversify the question type in order to avoid asking the same questions such as where should he go, what should he do etc. (The teacher is offering an idea to change the application of an activity in order to expose students different uses of the structure to be taught) (Ext. 19: 54).

Extract 84

With LS process, I have learned to shape what I got and adapt to the existing situation. (Ext. 67: 99).

The code ranked third in the distribution with respect to personal development of Participant 3 is self awareness. It is important to note the the frequency of the code is quite low. The code recurred just 8 times only and the percentage distribution is % 8,6. Similarly the co-efficient value of the code-quotations association is 0,03. The following quote is given to exemplify the association between the code “self-awareness” and the relevant data segment.

Extract 85

I would have never thought about going and asking for help from my colleagues in the teachers' room. I believe that I have overcome this with LS. (Ext. 67: 107).

The following code in the distribution on the basis of frequency count is “teacher rapport” as presented by the table. The code was linked to the quotations in 5 instances and it corresponds to % 5,2 of the total number. The co-efficient value of the association is 0,02 as displayed in the given table below. The extract below stands as an example of the association between the given code and relevant quotation.

Extract 86

While I was coming here I put myself into the students' shoes and thought that I would not be able to find the answer if I was asked the same questions in that way. (The participant is reflecting on his/her teaching on the basis of the RL he/she conducted. (Ext. 3: 100).

The last two codes that have the lowest groundedness levels are “teacher creativity” and “self confidence” respectively as illustrated by the table given above. It can be seen that “teacher creativity” code was observed in 3 instances only while “self confidence” code label was associated with only one quotation. Their percentage distribution is % 3,1 and % 1,4 respectively on the basis of the total and the co-efficient values of each are 0,01 and 0,00 which implies that the relationship between the relevant code and the quotations is quite weak. The following extracts exemplify the associations between “teacher creativity” and “self confidence” codes and relevant data segments.

Extract 87

Instead of finding a ready made video-song for the ice-breaking activity, why don't we record one related to the content ourselves. We may turn on/ off the tap and say it while doing. That would be more realistic and serve for the purpose (Ext. 3: 100).

Extract 88

I can say that I feel much more confident of myself as a teacher. I was not feeling like a fish out of water when I started teaching. I was feeling brave and excited

not frightened and anxious. I believe it is because of LS process and I wish everybody would benefit from it. (Ext. 73: 9).

4.4.6. The Impact of Lesson Study on Participant 4's Personal Development

With respect to personal development of Participant 4, the following table represents the distribution of code frequency within the theme. Each finding is supported with the relevant extracts that belong to Participant 4's data sources.

Table 46.

Participant 4's Personal Development

Codes	N	%	Co-Efficient
teacher judgement	88	61,1	0,09
teacher adaptability	39	27	0,06
self-awareness	6	4,1	0,01
self confidence	4	2,7	0,01
teacher creativity	4	2,7	0,01
teacher rapport	3	2	0,01
TOTALS	144	100	

The table obviously displays that a total of 144 data segments were associated with the code labels within personal development theme for Participant 4. The distributions follows similar pattern as in the previous partners' distribution because the first two codes with the highest groundedness level are the same as presented by the table.

The code that has the highest frequency count is "teacher judgement" according to the table. It can be seen that the code is linked to 88 quotations which is equal to % 61,1 of the total quotations associated with the codes within the theme. The table further presents that the relation between the code label and the quotations are stronger compared to the other codes because the co-efficient value of the association is 0,09. In the following extracts, the associations between "teacher judgement" code and the quotations are exemplified.

Extract 89

This is our second RL and we are still making a mistake in the group work activity. There is a problem with the group work design. When the group comes into the

front stage, there happens a long queue which causes chaos in the classroom. The same thing happened in the first RL as well. The participant is evaluating the effectiveness of the group work activity in post lesson discussion for the first RL (Ext. 18: 91).

Extract 90

After providing input, students were expected to produce what was planned and worksheet was prepared to observe output. Some students were confused while the others did well. It could be because of the fact that the structure given by the RL teacher was not comprehended by the students because they didn't follow the grammar part well. Otherwise it would be possible to create sentences accurately. To prevent this situation, controlled writing and pair work can be solution. (Ext. 22: 38).

The second code that has the highest groundedness is "teacher adaptability" as presented by the table. Although the code is ranked as second on the basis of frequency count, the number of associations drop sharply as illustrated by the table. It is evident that the code recurred 39 times and the number corresponds to almost one fourth of the total quotation number with % 27 percentage. In a similar vein, the coefficient value which is 0,06 drops significantly as in the frequency count. The following extracts are provided to display the association between "teacher adaptability" code and relevant quotations.

Extract 91

We prepared activities on the basis of students needs and types instead of using textbook and also adapted certain practices in order to respond to the needs of those students. In that way, I realized that minor changes in the structure of activities planned may contribute a lot to the understanding of learners. In this way, I can develop activities and materials depending on my students needs much better now. (Ext. 72: 12).

Extract 92

We should exclude ice-breaking activity from the plan and start directly with the theme because the lesson content is quite overloaded and we couldn't have

finished the plan in time in the preceeding RLs. Ice breaking activity takes almost 3 minutes and we save time in that way. (Ext. 43: 191).

A sudden decrease exists in the frequency count of the following codes as the table presents. It is obvious that the code “self-awareness” is associated with 6 quotations only and the frequency percentage of the association is % 4,1. The co-efficient value also signals the weakness of the relation as it is 0,01. The following extract is a sample for the association between “self-awareness” code and the relevant quotation. The co-efficient value is the same for each code.

Extract 93

I am quite aware of the stages of the lesson and what to do in each stage now because during LS we paid a lot of attention to the lesson planning, deeply analyse lesson stages and tried to develop activities relevant with each stage. In this sense, I can plan my courses much better now. (Ext. 72: 7).

The following two codes “self confidence” and “teacher creativity” share the same rank order concerning the distribution of codes since the frequency count of the both codes is 4 only which is equal to % 2,7 of the total quotations referenced for Participant 4’s personal development. The co-efficient value that is 0,01 is the same for each code as the table illustrates which indicates weak relationship as in the previous code. The following two extracts exemplify the code-quotation association for “self-confidence” and “teacher creativity” code labels respectively.

Extract 94

At the end of the whole process, I realized that many of the assumptions concerning teaching that make my mind busy before the application decreased. Thanks to LS process so that I can make strong predictions about classroom atmosphere in terms of conducting a lesson. (Ext. 57: 9).

Extract 95

We can plan group work or pair work activity here because not all children are the same both cognitively and emotionally. While some are very willing to answer, some others would be inhibited or reluctant. In that way they complete each

other's weaknesses. (The participant is offering an idea for an activity during lesson planning meeting for the pilot study) (Ext. 1: 8).

The least grounded code concerning personal development of Participant 4 is "teacher rapport" as illustrated by the table. It can be seen that the frequency count of the code is 3 only and the number corresponds to % 2 of the total quotations associated with codes in the theme. The co-efficient value represents weak relationship as in the preceeding three codes. The extract given below stands for the association between the code label "teacher rapport" and relevant data segment.

Extract 96

There were almost 37 students in our RL class. Even if we as observers tried to catch everything that happened in, the RL teacher said that he/she missed some students' behaviours and attitudes while teaching. In this respect, knowing about each student in the class is vital because every student reflects his/her own background to the class. (Ext. 22: 42).

4.4.7. The Impact of Lesson Study on Participant 5's Personal Development

The following table displays the findings concerning the impact of LS intervention on personal development of Participant 5.

Table 47.

Participant 5's Personal Development

Codes	N	%	Co-Efficient
teacher judgement	116	58	0,11
teacher adaptability	55	27,5	0,07
teacher creativity	15	7,5	0,02
self-awareness	7	3,5	0,01
teacher rapport	4	2	0,01
self confidence	3	1,5	0,01
TOTALS	200	100	

The table clearly presents that the trend in the frequency distribution does not change in terms of personal development of Participant 5 because the most grounded codes are

“teacher judgement” and “teacher adaptability” as in the previous four partners. The table further displays that a total of 200 data segments referenced from Participant 5’s data sources are associated with the codes within personal development theme.

On the basis of the frequency count, the most grounded code obtained from Participant 5’s quotes is “teacher judgement” as the table illustrates. The code is linked to 116 quotations and it corresponds to % 58 of the total quotation number referenced for personal development. In other words, more than half of the quotations linked to the codes within personal development theme is attached to “teacher judgement” code. Additionally, the co-efficient figure which represents the strength of relation between the code and the quotations indicates strong relationship since the value is 0,11. The following extracts are given as representatives for the association between the given code and relevant data segments.

Extract 98

I don’t think it works well. That would lead chaos in the classroom. It is impossible to apply it. It is better to develop an activity that the students work on seated. The classroom is already very crowded and you let those students to stand up and walk around the classroom to find pairs. No way! They would trip or hit each other. The game would never reach its goal. (The participant is judging the feasibility of an activity that is offered by other LS group member during pilot study lesson planning meeting.) (Ext. 1: 203).

Extract 99

The order of the activities are wrong in my opinion. We discussed it before. Isn’t it better to use video activity after the worksheet in order to consolidate vocabulary and structure. Otherwise, there becomes a gap and disconnection among the activities. It is not possible to talk a smooth transition. (The participant is criticisizing the order of activities in the lesson plan during pilot study post lesson discussion.) (Ext. 3: 22).

The second most grounded code is “teacher adaptability” as presented by the table. However, it is important to note that the frequency count of the code decreases more than the half. It is obvious that the code was observed in 55 instances which is equal to % 27,5 of the total quotation number. Also, the co-efficient value of the association decreases to

0,07. The extracts given below stands for the link between “teacher adaptability” code and related quotations.

Extract 100

After activating background knowledge, shall we give the new vocabulary on a worksheet and tell them to match them with the pictures in 10 minutes using a dictionary? That would be more challenging and competitive. Otherwise, they will just copy and paste. Also they work in groups and pairs in that way. Moreover, we can use the worksheet for the assesment. (The participant is offering an idea to reshape the planned activity) (Ext. 3: 110).

Extract 101

One more thing! Let’s find out a song that sounds nice because it doesn’t respond to students’ age and level. Even I felt bored when I was listening it. (The participant is suggesting to change the planned activity with a more plausible one) (Ext. 19: 155).

The decreasing trend in the frequency of the codes continues with the followings. A sharp decrease was observed in the groundedness of the next code. The table illustrates that the following code “teacher creativity” was linked to 15 quotations and the percentage distribution of the association is % 7,5. Similarly the co-efficient value drops sharply to 0,02. The extract given below is an example of the association between “teacher creativity” code and related data segment.

Extract 102

I am thinking about something like Sherlock Holmes. He was pulling something with a rope. I don’t know why but it came to my mind. I am thinking of connecting it to an activity but I don’t know if we can use it in the introduction or presentation. (The participant is takes the floor in the pilot study lesson planning meeting and commenting on an activity to include into the lesson plan. (Ext. 19: 155).

The table further illustrates that the least grounded codes in the frequency distribution of Participant 5 is “teacher rapport” and “self-confidence” respectively. “Teacher rapport” code label was observed in 4 instances only while “self-confidence” code

associated with just 3 quotations. The distribution percentage of each association is % 2 and % 1,5 respectively and the coefficient value for each is 0,01 indicating that the relationship between the codes and the quotations are not significant. The following extracts exemplify the associations for each code label.

Extract 103

We should consider students' satisfaction, motivation and interest. If the students are motivated and happy after the RL, they will reflect it at home to his/her parents. They will explain to them that I have learned these, the teacher has called me to the board, I have become the group leader. In that way, we may achieve positive learning atmosphere. (The participant is drawing attention to the importance of students needs, motivation and interests in the pilot study focus group interview.) (Ext. 4: 119).

Extract 104

We should consider students' satisfaction, motivation and interest. If the students are motivated and happy after the RL, they will reflect it at home to his/her parents. They will explain to them that I have learned these, the teacher has called me to the board, I have become the group leader. In that way, we may achieve positive learning atmosphere. (The participant is drawing attention to the importance of students needs, motivation and interests in the pilot study focus group interview.) (Ext. 4: 119).

Extract 105

When I went to practicum school, I used to be afraid of getting into the classroom. When I got into, I used to be uncomfortable. I have forgotten all these. I am very comfortable now in the classroom and I got to practicum with self confidence and satisfaction (Ext. 67: 110).

4.4.8. The Impact of Lesson Study on Participant 6's Personal Development

The following table represents the findings concerning personal development of Participant 6. It includes frequency distribution of each code label, their percentages proportioned to the total quotations about personal development and their co-efficient

value which represents the relationship between the code label and the quotations referenced.

Table 48.

Participant 6's Personal Development

Codes	N	%	Co-Efficient
teacher judgement	102	52,8	0,11
teacher adaptability	54	27,9	0,07
teacher rapport	13	6,7	0,03
teacher creativity	12	6,2	0,02
self-awareness	10	5,1	0,02
self confidence	2	1	0,00
TOTALS	193	100	

An important finding concerning personal development of Participant 6 is that the most grounded codes in the previous five partners which are “teacher judgement” and “teacher adaptability” are again the most frequent ones in the distribution as represented by the table. It is evident in the table that a total of 193 data segments were linked to the codes within the theme.

With respect to the frequency counts of the codes, it can be seen in the table that “teacher judgement” is the one with the highest frequency level. As in the previous partners, more than half of the data segments related to personal development of Participant 6 is associated with the given code. The frequency count of the code is 102 which corresponds to % 52,8 of the total. Additionally, the co-efficient value which is 0,11 is the highest when it is compared with the other codes' values. The following two extracts exemplify code-quotations association.

Extract 106

There was a gap in transition to the matching activity. I believe it is because of the fact that although we hid the target sentences into the video and expected to students to realize them, they couldn't comprehend the sentences even they watched it twice. They just focused on the visuals (The participant is explaining

the reason behind the lack in the expected student behaviour for the activity) (Ext. 2: 117)

Extract 107

If we had given target vocabulary before, how would we evaluate what they knew and what they didn't. We are asking them first in order to understand it. Otherwise we wouldn't have. We did the activity in this way to learn about it. (The participant is opposing the idea of providing target vocabulary first without asking to students during pilot study post lesson discussion) (Ext. 3: 8)

The code that is ranked second on the basis of frequency count is "teacher adaptability" as given in the table but the frequency decreases sharply to the half nearly as in the previous partners. It is obvious that the code was observed in 54 instances and the distribution percentage of the association is % 27,9. In a similar vein, the coefficient value drops significantly to 0,07. The extracts below given stands for the association between "teacher adaptability" code and relevant data segments.

Extract 108

In order to provide most appropriate lesson plan and content, as teachers, we should know our students' needs well and create new teaching strategies according to their level, age and individual differences by considering both inside and outside factors (Ext. 21: 30).

Extract 109

The teacher constantly controlled the time but unfortunately it was not enough to cover the lesson plan. We should exclude some of the activities or extend the lesson to a longer period of time to be able to implement the planned activities (The teacher is reflecting on the second RL on the basis of his/her observations) (Ext.31: 26).

The code that is ranked third on the basis of frequency is "teacher rapport" as presented in the table. It is again obvious that there is a sharp decrease to 13 associations in frequency count which corresponds to only 6,7 of the total quotations associated with the codes in the theme. Similarly the coefficient value is exposed to significant decrease

to 0,03 as the table represents. The following extract is an example of the association between the given code and relevant data segment.

Extract 110

I saw that there were some foreign students in the classroom and other students were saying something negatively. It seems as if they don't like them. They didn't engage in the RL. Therefore, we have to solve this problem because it is clearly affecting their participation in the classroom. (Ext.4: 101).

The following code which is ranked fourth relying frequency distribution is “teacher creativity” as given in the table. The code recurred in 12 instances and the distribution frequency of the association is % 6,2 on the basis of total quotation number. The co-efficient value of the association is 0,02 which indicates a weak relationship between the code and the quotations. The extract given below represents the association between the code and the relevant quotation.

Extract 111

I would like to suggest something. We can bring one more box into the classroom and we write “recycling box” on it. When the game is over, the students may throw those papers that they use for the game into the recycling box. That would be consistent with our RL theme. (The participant is offering a unique idea to apply into the RL for the following RL (Ext.15: 42).

The next code that is fifth in the rank order is “self awareness”. The code was linked to 10 quotations as displayed by the table and the number is equal to % 5,1 of the total which is 193. The co-efficient value which is 0,02 is the same as the previous code quotation association. The extract below exemplify the association between “self awareness” code and a selected quotation.

Extract 112

This process has had a great impact on my perceptions about teaching and education and on my professional route in terms of how to plan and teach a course on the basis of students' needs and unexpected situations (Ext.70: 1).

The least grounded code with respect to distribution frequency is “self confidence” as portrayed by the table. The code was observed just in 2 instances whose percentage distribution is just % 1. Also, the co-efficient value which is 0,00 represents no relationship between the given code and quotations. In the extract provided below, an example of the association between “self-confidence” code and related quotation is given.

Extract 113

LS process has changed my viewpoint about both students and teachers throughout learning and teaching process because I have seen that while we are conducting a lesson plan, any small mistake or unclear instruction could draw down all the planned progress, but it should never make us being afraid of trying much better (Ext.21: 19).

4.4.9. The Comparison of Partners’ Personal Development

The following table presents the comparison of all six participants on the basis frequency of codes within personal development.

Table 49.

The Comparision of Partners’ Personal Development

Codes	P1	P2	P3	P4	P5	P6
teacher judgement	72	143	60	88	116	102
teacher adaptability	37	100	16	39	55	54
teacher creativity	4	31	3	4	15	12
self-awareness	8	11	8	6	7	10
teacher rapport	3	14	5	3	4	13
self confidence	2	2	1	4	3	2

An important finding with respect to personal development of the participants, it is evident that the most grounded codes in all six partners are “teacher judgement” and “teacher adaptability” respectively. In other words, both codes are the most frequent codes that are associated with the data segments referenced from each participants’ data sources.

Another interesting finding is, except for Participant 4, the least grounded code for the remaining 5 participant is “self confidence as portrayed by the table. To put in

different way, the code has the lowest frequency level in terms of association with the quotations attached.

Furthermore, it is present in the table that the frequency distribution of codes declines sharply after the first two most grounded codes which are “teacher judgement” and “teacher adaptability”. It is not possible to talk about a consistent increasing or declining distribution in the remaining codes.

4.5. The Impact of Lesson Study on Participants’ Classroom Management Skills in terms of Teacher Interventions

The table given below displays the impact of LS on each participants’ classroom management skills concerning “Teacher Interventions”. It includes the frequency number of each code label within the theme for each participant and their percentage on the basis of the total number of quotations attached to the codes within the theme. Because of the space concern, the findings about codes only with highest and lowest frequency have been considered in detail.

Table 50.

The Impact on Teacher Interventions

Codes	Participants											
	N	1 %	N	2 %	N	3 %	N	4 %	N	5 %	N	6 %
activating schemata	1	0,8	6	2,8	3	3,6	3	2,3	6	3,2	5	3,5
activity content	12	9,8	7	3,3	1	1,2	11	8,7	15	8	4	2,9
activity management	13	10	15	7,1	4	4,8	10	7,9	7	3,7	8	5,7
assigning group members	7	5,7	10	4,7	5	6	8	6,3	6	3,2	4	2,9
attracting attention	2	1,6	3	1,4	2	2,4	N/A	0	8	4,2	2	1,4
boredom-sameness	2	1,6	8	3,8	2	2,4	N/A	0	2	1	1	0,7
classroom management	2	1,6	2	0,9	1	1,2	N/A	0	N/A	0	4	2,9
considering all students	N/A	0	7	3,3	1	1,2	4	3,1	6	3,2	3	2,1
eliciting response from students	5	4	20	9,5	2	2,4	9	7,1	9	4,8	6	4,2
error correction	N/A	0	3	1,4	N/A	0	1	0,7	4	2,1	4	2,9
establishing appropriate behavior	N/A	0	2	0,9	N/A	0	N/A	0	2	1	N/A	0
evaluation	2	1,6	5	2,3	1	1,2	3	2,3	4	2,1	5	3,5
fun element	2	1,6	11	5,2	4	4,8	5	3,9	4	2,1	7	5
giving encouragement, feedback and praise	3	2,4	11	5,2	1	1,2	3	2,3	3	1,6	5	3,5
giving instructions	16	13,1	19	9	10	12,2	23	18,2	40	21,3	19	13,5
grading and sequencing	6	4,9	7	3,3	6	7,3	5	3,9	14	7,4	13	9,3
increasing motivation	3	2,4	1	0,4	2	2,4	2	1,4	3	1,6	3	2,1
inductive teaching	N/A	0	1	0,4	N/A	0	N/A	0	2	1	2	1,4
input & intake	2	1,6	1	0,4	1	1,2	3	2,3	3	1,6	1	0,7
instructional strategy	3	2,4	7	3,3	N/A	0	1	0,7	2	1	3	2,1
monitoring students	10	8,1	7	3,3	9	11	6	4,7	5	2,6	7	5
more challenging tasks	1	0,8	3	1,4	2	2,4	N/A	0	1	0,5	N/A	0
observation of student learning	20	16,3	26	12,3	14	17	16	12,7	13	6,9	20	14,2
positive classroom atmosphere	3	2,4	N/A	0	1	1,2	N/A	0	N/A	0	3	2,1
questioning	3	2,4	18	8,5	6	7,3	8	6,3	10	5,3	8	5,7
scaffolding	3	2,4	3	1,4	1	1,2	3	2,3	1	0,5	1	0,7
self-correction	N/A	0	5	2,3	1	1,2	N/A	0	6	3,2	N/A	0
using time effectively	1	0,8	2	0,9	2	2,4	2	1,4	11	5,9	2	1,4
TOTALS	122	100	210	100	82	100	126	100	187	100	140	100

It can be seen in the table that 122 quotations have been selected from Participant 1's data segments to associate with the codes within "Teacher Interventions" theme. The table further represents that four codes, "observation of student learning, giving instructions, activity content, activity management" namely, have the highest frequencies respectively when compared with the other codes in the theme and the total number quotations associated with these codes correspond to % 50 of the total quotation number.

It is evident in the table that the code with the highest frequency value is "observation of student learning". A total of 20 quotations were attached to the given code label and the percentage distribute of the association is % 16,3. The following quotation is provided as an example for the association between "observation of student learning" code and relevant data segment.

Extract 114

Observing students during the RL and analysing their engagement in the classroom help us overcome disruptions and enable management in the classroom and provide a well-organized classroom with successful learning. (Ext.23: 9).

The code that is ranked second with respect to frequency count and percentage distribution is "giving instruction" as represented by the table. It can be seen that the code was observed in 16 occasions which means that 16 quotations were associated with "giving instruction" code. The frequency number of the association corresponds to % 13, 1 of the total number of quotations associated with the codes within the theme. The extract given below stands as a sample for the association between the given code and relevant quotation.

Extract 115

It is vitally important to give instructions clearly. Even at first, the teacher should show to the students what he/she expects of them by acting out (The participant is commenting on the reason behind the fail of the application of an activity in pilot study post lesson discussion (Ext.2: 54).

"Giving instruction" code is followed by "activity management" code in terms of frequency count as displayed by the table. It is obvious that "activity management" code was associated with 13 selected quotations that belong to Participant 1. The percentage

distribution of the association is % 10. The extract given below is an example of the association between “activity management” code and related data segment.

Extract 116

When the students completed their work, the teacher should have given the answers and repeated the phrases by using body language in order to help weak learners to understand the meaning and reinforce learning (The participant is expressing his/her thoughts about the management of an activity applied in RL 1 on lesson observation sheet) (Ext.28: 64).

The code that is ranked fourth concerning the frequency distribution of codes belonging Participant 1 within Teacher Interventions theme is “activity content” as the table portrays. It is clear that the code was observed in 12 instances and the percentage of the association is % 9,8 when the number is proportioned to the total number of associations with codes within the theme. The following quotation represents the association between “activity content” code label and attached data segment.

Extract 117

Instead of using the same subjects for the structure in each sentence, we should have varied the the subject. In that way, the students would have seen the use of structure with different subjects. (The participant is offering a change in the worksheet content in pilot study lesson observation sheet) (Ext.5: 11).

The fifth code in frequency distribution is “monitoring students” It is obvious that the code was associated with 10 data segments and the percentage of the association that is proportioned to the toal is % 8,1. In other words, out of Participant 1’s 122 quotations that were linked to the codes within Teacher Interventions theme, 10 of them was attached to “monitoring students” code. The following is given as an example for the association between “monitoring students” code and related quotation.

Extract 118

I have been observing the students understand the RL content but some of them are cheating from their coursebook for the answers (The participant is expressing his/her observations in lesson observation sheet for RL 4 (Ext.62: 9).

The table further illustrates that there are five other codes within the theme that haven't been associated with any data segments belonging to Participant 1. Therefore, they were considered as the codes with the lowest frequency count. They are "considering all students", "error correction", "establishing appropriate behavior", "inductive teaching" and "self correction" code labels.

Concerning Participant 2's findings, the table presents that a total of 210 data segments were associated with the codes within Teacher Interventions theme. It is important to note that Participant 2 has the highest number of quotations that are attached to code labels in the theme when compared with the other participants. Also, it is displayed that the codes that have the highest frequency counts are "observation of student learning", "eliciting response from students", "giving instructions", "questioning", "activity management", "giving encouragement, feedback and praise" and "fun element" respectively. The total frequency number of these seven codes is equal to % 57 of the total number of quotations associated with the codes within the theme.

It is evident in the table that the code that has the highest frequency count is "observation of student learning" as mentioned before. A total of 26 data segments were linked to the code label and that corresponds to % 12,3 of the total number of associations linked to the codes within the theme which is 210. The extract given below is an example of the association between "observation of student learning" code and relevant quotation.

Extract 119

A good teacher also be a facilitator and a good observer. He /she can easily determine the students' weaknesses and strengths during the course of instruction. (Ext.24: 15).

The second code in Participant 2's rank order with respect to frequency count of the codes within Teacher Interventions theme is "eliciting response from students" code. It is presented in the table that the code was observed in 20 occasions. The percentage distribution of the association is % 9,5. The example of the association is given in the following extract.

Extract 120

In order to elicit response from students, we may give clues to the students in order to help them. As an example we can give two options to the students and we may

ask them to choose one and say it if it is too hard for them to produce what we have taught. Giving clues in order to elicit response from students is one of the most important criteria in English language teaching (Ext.29:39, 24: 9).

The code that is ranked third on the basis of frequency count is “giving instructions”. A total of 19 quotations from Participant 2’s data segments were attached to the code label and the number corresponds to % 9 of the total quotation number. The following is an example for the association between the given code and related data segment.

Extract 120

We should leave some space for students’ creativity. For example, It is not necessary to give instructions for the warm up activity “Move and Freeze”. Everything is very clear on the screen (Ext.19:84).

The following code is “questioning” code label as given in the table. The code is ranked fourth on the basis of its frequency count which is 18. To put in another way, 18 quotations selected from Participant 2’s data segments were attached to “questioning” code which is equal to % 8,5 of the total number of associations with the codes within Teacher Interventions theme. The following extract stands as an example for the link between the given code and relevant data segment.

Extract 122

When teachers ask a question, they should choose the volunteer students first, then the shy ones in order not to make them feel inhibited. Calling the students with their names is the best solution to ensure a positive atmosphere in the class, so teachers should try to keep their names in their minds. (Ext.35: 12).

The code “questioning” is followed by “activity management” code as displayed by the table. It is clear that the “activity management” code was observed in 15 instances total number of associations which represents % 7,1 of the total number when it is proportioned to the total number of code-quotation associations from Participant 2’s data sets. The following is a representative for the association between “activity management” code and related data segment.

Extract 123

In my opinion, we should storify the narrative activity like “Harry went to school and he saw that the trees were cut down. What should he do?” I mean it would be more interesting and attractive for the students (The participant is suggesting to make a change in the application of RL activity) (Ext.19: 72).

The following two codes which are “giving encouragement, feedback and praise” and “fun element” share the same rank order with respect to Participant 2’s frequency distribution of codes within Teacher Interventions theme. Both code labels were associated with 11 quotations which represents the frequency count of both “giving encouragement, feedback and praise” and “fun element” codes. The percentage of the frequency for both code labels is % 5,7 as illustrated by the table. The two extracts given below stand as samples for the linkages between “giving encouragement, feedback and praise” and “fun element” codes and related data segments respectively.

Extract 124

Although the classroom size is quite small, the instructor were eager to interact with the students. In addition, the instuctor were quite patient because students were so silent and needed to be encouraged to speak and the instructor did her best about it. (The participant is reflecting on RL 3) (Ext.47: 5).

Extract 125

We shouldn’t plan the game activity too challenging. As the name implies it is a game and the students should enjoy themselves by having fun (Ext.12: 3).

The table further represents that there is only one code within Teacher Interventions theme that no quotations were associated with. That is “positive classroom atmosphere” It is considered as the code with no frequency count at all. In addition to this, there are three more code labels with only 1 frequency count. They are “increasing motivation”, “inductive teaching” and “input & intake code labels as illustrated by Table 48.

Regarding the findings concerning Participant 3, a total of 82 quotations obtained from Participant 3’s data sets were attached to the code labels within Teacher Interventions theme. An important finding is that the number of code-quotation associations of Participant 3 is the lowest when compared with the other Partners’.

The code frequency of Participant 3 represents a similar trend with the previous partners as given in the table. Three codes which are labelled as “observation of student learning”, “giving instructions”, and “monitoring students” respectively constitute % 40 of the total quotation number and the frequency declines sharply in the distribution of following codes.

It is evident in Table 48 that the code that has the highest frequency count is “observation of student learning”. The code was associated with 14 quotations from Participant 3’s data sets and the number constitutes % 17 of the total quotation number that is 82 as mentioned before. The following quotation stand as an example ofr the association between “observation of student learning” code label and related data segment.

Extract 126

Thanks to LS process that I can better see the backstage of preparing lesson plan and also determining of English learners’ problems by observing them (Ext.25: 1).

The second code in rank order on the basis of frequency count is “giving instructions” as mentioned before. The code whose frequency count constitutes % 12,2 of the total associations was attached to 10 quotations as represented by the table. The following is a respresentative for the link between “giving instructions” code and relevant quotation.

Extract 127

Also I feel like I have become very good at managing the classroom and students. I am very careful of questioning, giving instructions, planning the lesson, my body language and using the classroom time effectively. (Ext.73: 6).

The third code in the rank with the highest frequency distribution is “monitoring students” as illustrated by the table. The code-quotation association was observed in 9 instances from Participant 3’s data pool and the frequency number corresponds to % 11 of the total 82 quotations that are associated with the codes within the theme. The following extract is an example of the association between “monitoring students” code and relevant quotation.

Extract 128

I am constantly watching myself while I am lecturing in the classroom and also monitoring students at the same time. If I see that a group of students does not understand the lesson, a student disengaged, or some students are dealing with other things, I just think about my practices and try to figure out the reason behinds students' lack of understanding. Is it because of my instructions, is it because of my teaching style or instructional strategies etc...(Ext.73: 1).

The table further displays that four codes which were labled as “error coorrection”, “establishing appropriate behaviour”, “inductive teaching” and establishing appropriate behaviour” were not linked to any quotations from Participant 3’s data pool and so they were considered as the codes with lowest frequency or no frequency at all.

Concerning findings presenting the impact of LS process on Participant 4’s teacher intervention strategies, a similar trend was observed in the frequency distribution of codes. Table 48 presents that a total of 126 quotations from Participant 4’s data source were attached to the codes within the theme. It is also displayed in the table that two codes which are “giving instructions” and “observation of student learning” constitutes nearly one third of the total quotation number.

It is clearly shown in the table that “giving instructions” code has the highest frequency count when compared with the other 27 codes within the theme. A total of 23 quotations were associated with the given code and the percentage of the relationship is % 18,2. In other words, nearly one fifth of the data segments chosen to link to the codes within Teacher Interventions theme was associated with “giving instructions”. The extract given below is a representative of the association between “giving instructions” code label and relevant data segment.

Extract 129

Applying prepared narrative into the lesson was effective in terms of drawing students' attention, but expected student participation could not be achieved because giving instruction and purpose to students before the activity was incomplete. In this sense, importance of instruction should be taken into account for the next studies. (The participant is associating the fail in the implementation of an activity to not being able to give instructions) (Ext.22: 10).

The second code in rank order that has been applied most frequently is “observation of student learning” as it is illustrated by the table. It is obvious in the provided table that “observation of student learning” has been applied in 16 occasions. In other words, the code was associated with 16 data segments. Additionally, the percentage of the code-quotation association is % 12,7 when the frequency is proportioned to the total number of association that is 126. The extract given below is a sample for the coincidence of “observation of student learning” code and related quotation from Participant 4’s data pool.

Extract 130

Students seem puzzled like they dont have any purpose. They are trying to figure out what is going on and what they are going to do. (The participant’s written record of observations of RL 1) (Ext.27: 12).

Another important finding with respect to Participant 4’s teacher intervention strategies, it was observed that there were 8 code labels which were not linked to any data segments or quotations. The number is the highest when compared with the other partners’ frequency distribution of codes with no associations. These codes are respectively, “attracting attention”, “boredom-sameness”, “classroom management”, “establishing appropriate behaviour” “inductive teaching”, “more challenging tasks”, “positive classroom atmosphere”, and “self correction”.

Participant 5’s findings concerning the impact of LS practice on the teacher interventions strategies is quite distinctive when compared with the other partners’. A total of 187 data segments were linked to the codes within the theme. In this respect, he/she is the second in rank concerning the number of quotations associated with the codes. Also, only one code label, “giving instructions”, constitutes more than one fifth of the total number of code-quotation application within the Teacher Interventions theme. The frequency of the following codes declines sharply in distribution as presented in the table. However, when the table is analyzed in general, the findings represent a similar trend with the previous partners’ in terms of frequency distribution.

As mentioned before, the code label which has the highest frequency count is “giving instructions” as the table illustrates. It can be seen that the code was applied to 40 quotations and the number constitutes % 21,3 of the total number of quotations associated

with the codes within the theme. The extract given below is an example of the association between “giving instructions” code label and relevant data segment.

Extract 131

We can give instructions in a simpler way. We can act out the instruction while giving it. As an example, I will say, I will play the tape and you will start moving. I will act it out there to show students what to do and I will tell them that you will freeze when it stops and I will stop moving (The participant is suggesting to apply the planned activity in a more efficient way during RL 1 post lesson discussion (Ext.19: 83).

Additional finding is that there are only two codes that haven’t been applied to any of the codes within theme. They are “classroom management” and “positive classroom atmosphere” as illustrated by the table. In this sense, they were considered as the codes with the lowest frequency count.

A total of 140 data segments from Participant 6’s data sources were applied to the codes within Teacher Interventions theme as illustrated by Table 48. The distribution of codes represent a similar pattern as in the previous partners concerning the highest and lowest frequent codes. It is evident in the table that the codes that have been applied most frequently are “observation of student learning”, “giving instructions” and “grading and sequencing” respectively. The frequency count of the three codes corresponds to more than one third of the total frequency count of the quotations that is 140.

The code that has the highest frequency count is “observation of student learning” as mentioned before. The code was associated with 20 quotations from Participant 6’s data sources as illustrated by the table and the percentage of the association is % 14,2. The following extract stands as representative of the association between “observation of student learning” code and related data segment.

Extract 132

By virtue of LS, I have increased my awareness on how to observe students in the classroom and determine their weakness and strength. (Ext.21: 17).

The second code in rank order on the basis of frequency is “giving instructions” as displayed by the table. The code was applied in 19 instances and the percentage of the

association is % 13,5. The extract provided below is an example of the link between “giving instructions” code label and attached quotation.

Extract 133

I will try to do my best to give instructions in English before each activity but I believe their language proficiency matters there. I will observe them to check their understanding. If I realize that they are puzzled, I will switch to Turkish to give them. (The participant is stating how to apply each activity during lesson planning meeting for RL 3), (Ext.30: 83).

The third code in frequency distribution is “grading and sequencing” as stated before. The frequency count of the code is 13 as illustrated by the table which means that the code was applied 13 times. The frequency count which is 13 constitutes 59,3 of the total number of code quotation association concerning Participant 6’s teacher intervention strategies. The extract provided below shows the association between “grading and sequencing” code and relevant quotation.

Extract 134

In fact, we gave the structure directly in chunk. They only wrote a phrase to the blanks. It was too easy for them. In my opinion, we should make it scrambled to make the activity responsive to their current level (The participant is commenting on the appropriateness of an activity applied in pilot study during post lesson discussion), (Ext.3: 36).

Concerning the codes that have lowest or no frequency at all, it was observed that 3 codes within teacher intervention theme were not applied to any quotations or data segments from Participant 3’s data pool. They are respectively, “establishing appropriate behaviour”, “more challenging tasks” and “self correction” as given in table 48.

Briefly, with respect to the impact of LS process on the participants’ teacher intervention strategies, it was observed that “giving instructions” and “observation of student learning” namely, were the codes that were applied to the data segments most frequently among all partners as it is clearly illustrated by the table. However, a consistent distribution concerning the codes with lowest frequency count or no associations was not observed among partners. It is only possible to talk about a commonality in the frequency distribution of “establishing appropriate behavior” code since the code was not linked to

any data segments of four participants and it was associated with only 2 quotations in the other two participants.

4.6. The Impact of Lesson Study on Participants' Classroom Management Skills in terms of Learner Related Issues

The following table presents the findings concerning the impact of LS on each participants' classroom management skills in terms of "Learner Related Issues. The table displays the frequency count of each code label within the theme for each participant and their corresponding percentage on the basis of the total number of quotations attached to the codes within the theme. Because of the space concern, the findings about codes only with highest and lowest frequency have been considered in detail.

Table 51.

The Impact on Learner Related Issues

Codes	Participants											
	1		2		3		4		5		6	
	N	%	N	%	N	%	N	%	N	%	N	%
affective considerations	3	3,4	16	11	5	8,3	13	12	15	12,4	16	13
allocation of attention	14	16,3	15	10,2	7	12	12	11,1	23	19	8	6,5
background knowledge	5	5,8	8	5,4	3	5	5	4,6	3	2,5	8	6,5
diversity	3	3,4	8	5,4	2	3,3	7	6,5	3	2,5	7	5,6
language production	8	9,3	28	19	11	18,3	12	11,1	6	5	21	17
misbehavior	11	12,8	17	12	6	10	10	9,3	12	9,9	6	4,8
motivation	2	2,3	3	2	6	10	11	10,2	9	7,4	8	6,5
native language use	5	5,8	12	8,2	2	3,3	6	6	11	9,1	2	1,6
off task behaviour	4	4,7	N/A	0	1	1,6	4	3,7	9	7,4	10	8
retention	10	11,6	6	4,1	2	3,3	6	5,5	6	5	5	4
student engagement	5	5,8	8	5,4	7	12	6	5,5	10	8,3	15	12,1
student involvement	3	3,4	5	3,4	1	1,6	N/A	0	5	4,1	3	2,4
students language proficiency level	6	7	14	10	7	12	11	10,2	6	5	11	8,9
students needs and interests	5	5,8	7	4,8	N/A	0	5	4,6	2	1,7	4	3,2
uninterested students	2	2,3	N/A	0	N/A	0	N/A	0	1	0,8	N/A	0
TOTALS	86	100	147	100	60	100	108	100	121	100	124	100

Participant 1's findings with respect to the impact of LS intervention on classroom management skills in terms of learner related issues displayed in table 49, it can be seen that there are three codes , “allocation of attention”, “misbehavior” and “retention” namely which are most frequently applied to the data segments selected from Participant 1's data sources. Three codes together constitute nearly % 40 of the Participant 1's total code-quotation association about The Learner theme that is 86. In other words, out of 86 quotations that are linked to the codes within the theme, % 40 of them is attached to “allocation of attention”, “misbehavior” and “retention” codes. The frequency declines sharply in the following codes as it is visualised in the table

The table clearly illustrates that the code that is most frequently applied to the Participant 1's data segments concerning to learner related issues is “allocation of attention”. The frequency count of the code label is 14 and the corresponding percentage

of the association to the total is % 16,3. In the following extract, a sample of the association between “allocation of attention” code and related quotation is provided.

Extract 135

They (the students) watched silently and attentively. They were repeating the target vocabulary themselves while watching it. When the video was shown for the second time, they were not distracted and continued watching attentively. (The participant’s pilot study lesson observation notes) (Ext.5: 4).

The following code in the rank order of frequency is “misbehaviour” as displayed by the table. The code was applied to the Participant 1’s data segments in 11 occasions which represents % 12,8 of the total associations with the codes within the theme. The extract given below exemplify the relation between “misbehavior” code and relevant quotation.

Extract 136

Observing students, analysing engagement in the classroom helps us to overcome disruptions and lack of management in the classroom which enhances providing a well-organized classroom with successful learning. (The participant’s thoughts about LS process recorded in his/her reflection papers after RL 1), (Ext.23: 9).

The third most frequent code that was linked to data segments related to learner related issues is “retention” code label. It is obvious in the table that the code was associated with 10 quotations. The frequency count constitutes % 11,6 of the total number of associations applied. The extract given below is a representative for the association between “retention” code and relevant data segment.

Extract 137

We should do something to increase the retention of the structure. Instead of the narrative activity that the students watch passively, we should find an activity that will lead students to produce the structure in order to strengthen the retention of it. (The participant is expressing his/her thoughts in RL 2 post lesson discussion), (Ext.30: 61).

Concerning findings about the least frequently applied codes, the table visualizes that the codes that have the lowest frequency counts are “motivation” and “uninterested students”. Both codes were applied only in two instances and the percentage of each association is % 2,3 only as represented by the table.

Participant 2’s findings related to The Learner Theme is rather broad in scope when compared with the other participants since the frequency distribution of codes within the theme is diverse. The table visualizes that a total of 147 data segments from Participant 2’s data sources were associated with the codes within The Learner theme. In this respect, Participant 2 has the highest number of code-quotation links with respect to learner issues when compared with the other participants. The table further displays that the codes that have the highest frequency level, “language production”, “misbehavior”, “affective considerations”, “allocation of attention”, and “students’ language proficiency level” respectively constitutes nearly % 60 of the total quotation number that is associated with the codes within the theme.

As it is displayed by the table, the code which has the highest frequency level is “language production” label which implies that it is the most heavily used code for associating with the data segments. The frequency count of the code is 28 which corresponds to nearly one fifth (%19) of total quotation number associated with the codes within the theme. The extract given below stands as an example for the relation between “language production” code and relevant data segment.

Extract 138

We don’t have input problem in the RL. We are providing large amount of input with the activities we planned and applied. The problem is with the output. The students do not produce. We should find an activity that will lead them to produce target vocabulary and structure. (The participant is expressing his/her thoughts in RL 2 post lesson discussion), (Ext.30: 49).

The second most frequently used code linked with the data segments is “misbehaviour” as illustrated by the table. The frequency count of association for “misbehaviour” code is 17 and the percentage of association proportioned to the total number is % 12. The example of the association between “misbehaviour” code label and related quotation has been given in the following extract.

Extract 139

In my opinion, it could be difficult to control the classroom with the presentation activity because when they see the slides they will immediately answer the questions in chorus without raising their hands. We won't even find time to tell them to stop giving answers. (The participant is discussing about the applicability of an activity in RL 1 lesson planning meeting), (Ext.14: 77).

The following code on the basis of frequency count is “affective considerations” as it is already mentioned. The table clearly visualizes that the number of associated quotations to “affective considerations” code is 16 which constitutes % 11 of the total number that is 147. The following extract has been to provide to illustrate the link between the given code and relevant data segment.

Extract 140

Sometimes we don't have to depend on the lesson plan as it is because some of the situations can make the lesson plan change. For example, some students in the classroom are shy and we are trying to make them engage more and we want them to participate actively but they are shy and we can't apply it. Therefore, we need to make some changes in the lesson plan by being aware of it. (The participant is expressing his thoughts during Pilot Study Focus Group Interview), (Ext.4: 17).

The fourth code in rank order depending on the groundedness of the code is “allocation of attention”. The table clearly represents that the code was associated with 15 quotations chosen from Participant 2's data sources. The code's corresponding percentage of frequency count is % 10,2. The following code that is “students' language proficiency level” was applied to the data segments in 14 instances and so ranked fifth in frequency distribution with % % 10 percentage value. The following two extracts represent the links between “allocation of attention code”, “students' language proficiency level” code label and relevant quotations respectively.

Extract 141

The students had been so driven by the RL that they paid their full attention to the task without asking any questions to the teacher or each other. (The participant is

expressing his observations of students working on the task during RL 4, Post Lesson Discussion), (Ext.55: 10).

Extract 142

However, the theories, methods, techniques and strategies that I have worked on at university are sometimes useless because some of my students do not even know their mother tongue properly. Even they have difficulty in reading and writing in Turkish. Therefore, I usually have difficulty in teaching English because their language proficiency level is quite low. When I use the target language in a simple way, they do not understand what I am saying. (The participant's post application reflection comments), (Ext.69: 3).

When the table is analysed on the basis of lowest frequency code labels, it can be seen that there are two existing codes within the The Learner theme that were not applied to any quotations or data segments belonging to Participant 2. As it is displayed in the table, those codes are “off task behavior” and “uninterested students”.

With respect to Participant 3's findings displaying the impact of LS process concerning The Learner theme, table 49 presents that a total of 60 quotations were attached to the code labels within theme. In this respect, the participants has the lowest number of quotations that are associated with the codes when compared with the other participants. Regarding to the frequency distribution of codes, it can be seen that only one code “language production” is distinctive in the table. The frequency counts of the following codes declines sharply. Within this perspective, it is possible to report that Participant 3's frequency distribution of codes rather consistent when compared with the other participants as most codes in the theme has similar frequency counts.

The code that has the highest frequency level is “language production” label as mentioned before. The code was associated with 11 quotations which corresponds to nearly one fifth (% 18,2) of the the total quotation number that are applied to the codes in the theme. The following extracts is an example of the relationship between the “language production” code and relevant data segment.

Extract 143

How can we expect production from the students in first ten minutes of the RL? That does not make sense. (The participant is opposing the idea forwarded by

another participant who is offering language production during the presentation stage of the following RL during lesson planning meeting of RL 3), (Ext.42: 69).

With respect to the distribution of codes that have the lowest frequency count, it is evident in the table that there are two codes that have no associations with any data segments belonging to Participant 3. They are respectively, “students needs and interests” and “uninterested students” as illustrated by the table.

The frequency distribution of codes framing the impact of LS on Participant 4’s classroom mangement skills in terms of learner related issues, it can be seen that the distribution is far more inclusive compared to the other participants. It has been revealed in the table that a total of 108 quotations were attached to 13 code labels in the theme. The theme is consisted of 15 codes and more than two thirds of the quotations were associated with six codes which are “affective considerations”, “allocation of attention”, “language production”, “motivation”, “students’ language proficiency level” and “misbehavior” respectively. The findings concerning the association for each code label is given in the following paragraphs.

The code which has the highest frequency count on the basis of the number of associations is “affective considerations” as represented by the table. The code was applied to 13 data segments and the nummber consitutes % 12 of the total number of associations. The extract provided below examplify the association between “affective considerations” code label and relevant quotation.

Extract 144

Although some students were not eager to join warm up activity at the beginning, after a while, everyone participated in because of feeling confident enough. In this respect, encouraging students in EFL classes should have priority. (RL 1 Reflection), (Ext.22: 4).

The second code in rank order concerning the frequency distribution of codes is “allocation of attention” as portrayed by the table. The code was associated with 12 quotations and the frequency number constitutes % 11,1 of the total number of associations within the theme. The code “language production” has the same frequency number with “allocation of attention” code label with respect to frequency distribution and share the same rank order as displayed by the table. In this sense, the code was applied

in 12 instances and the corresponding percentage is % 11,1. The extracts provided below are the representatives of the association between “allocation of attention” and “language production” codes and related data segments.

Extract 145

Students are very curious. They watched the song attentively. (RL 2 Post Lesson Discussion), (Ext.30: 45).

Extract 146

After receiving input, students were expected to produce what was planned and worksheet was prepared for observing output. Some were confused while the others were producing well. In this sense, it is possible to say that the core structural content provided could not be comprehended by students. (RL 1 Reflection Sheet), (Ext.22: 11).

Table 49 further presents that there are two codes sharing the third rank order in the frequency distribution and they are “motivation” and “students’ language proficiency level” code labels. It is clearly presented that both code labels were attached to 11 quotations which represents the frequency count of each code and the given frequency number constitutes % 10,2 of the total quotations that are applied to the codes within the theme. In the following two extracts, the examples of associations for each code label have been provided.

Extract 147

Students were highly motivated and active so that participation was getting higher in each following activities. (RL 4 Reflection Sheet), (Ext.57: 3).

Extract 148

Almost all the students had the same language proficiency level. I mean they were all low level students as far as I observed. Therefore, there was not anybody to stimulate others by actively engaging in the activities or participating the RL. Unfortunately, they stayed very passive during the instruction... (RL 3 Post Lesson Discussion), (Ext.43: 113).

The following code in rank is “misbehaviour” as it is illustrated by the table. The code was associated with 10 related data segments from Participant 4’s data sources and the corresponding percentage value of association that is proportioned to the total is % 9,3. The extract given below exemplify the association between “misbehaviour” code and related data segment.

Extract 149

It seems as if the game activity is challenging for the learners to understand. Therefore, there is a small discussion, and disagreement about what to do among them (Pilot Study Lesson Observation Sheet), (Ext.7: 13).

Concerning Participant 4’s findings related to the codes with lowest frequency counts, the table portrays that there are two codes that were not applied to any data segments of Participant 4. These codes are “student involvement” and “uninterested students” as illustrated by Table 39.

Table 49 reveal distinctive findings concerning the impact of LS process on Participant 5’s classroom management skills in terms of learner related issues since only two codes were observed to have the highest frequency level. The table further presents the total number of data segments associated with the codes within the theme is 121 and nearly one third of the total quotation number was linked to “allocation of attention” and “affective considerations” code labels.

On the basis of Participant 5’s findings illustrated by the table, it can be seen that the code that has the highest frequency is “allocation of attention” as mentioned before. Out of 121 total number of quotations that are associated with the codes within the theme, 23 of them were linked to “allocation of attention” code label. The number constitutes % 19 of the total number of associations within the theme. The following extract exemplifies the association between the given code and related data segment.

Extract 150

In student engagement walkthrough checklist I selected medium for the consistent focus of the students part because in certain moments the students lost their attention during the course of the instruction and dealt with other stuff or chatted among themselves (RL 1 Post Lesson Discussion), (Ext.19: 94).

The second code that has the highest frequency count is “affective considerations”. The code was applied in 15 occasions in terms of code quotation association and the corresponding percentage of the association to the total is % 12, 9 as the table displays. The extract provided below is a representative for the relationship between “affective considerations” code label and relevant data segment.

Extract 151

The most basic problem in the classrooms is self-confidence. It is quite related with motivation of students in the classroom. In my opinion, we can focus our attention to increase students’ self confidence in the classroom. (Pilot Study Lesson Planning Meeting), (Ext.1: 109).

Another distinctive finding from Participant 5’s data sources concerning with learner related issues is that all the codes were associated with data segments which means there aren’t any non-applicable codes. In this sense, the codes which have the lowest frequency counts are “uninterested students” and “students needs and interests” respectively. The code “uninterested students” label was associated with only one quotation only while “students needs and interests” was linked to just two data segments. The corresponding percentage of each association is % 0,8 and % 1,7 respectively.

Participant 6’s findings related to learner related issues display a comparable evidences to previous participants’ findings since the associations are centered on three codes. In other words, 3 codes have the highest frequency counts when compared with the other codes within the theme. These codes are “language production”, “affective considerations” and “student engagement” respectively as illustrated by the table. The frequency of the three codes corresponds to % 40 of the total code-quotation associations that is 124 within the theme.

The code with the highest frequency count within the theme in Participant 6’s findings is “language production” as it is already mentioned. The frequency count of the code is 21 which implies that the code was associated with 21 data segments as given by the table. The corresponding percentage of the frequency count of the code proportioned to the total is % 21. The following extract exemplify the association between “language production” code and relevant quotation.

Extract 152

After the activity, we can also apply a pronunciation activity. If a student gives answer with a full sentence and we get the production that we expect. Later on the other students repeat the full sentences all together. In my opinion, that's a good activity. (One LS group member offers an activity to enable students' language production and Participant 6 extends its scope to increase language production in RL 2 Post Lesson Discussion), (Ext.30: 124).

The second most frequently applied code from Participant 6's data sets within the theme is "affective considerations". The code was associated with 16 quotations as table 49 displays. The corresponding percentage of the code' frequency count is % 13. In the extract provided below, the association between "affective considerations" code label and relevant data segment has been exemplified.

Extract 153

There are some students who are being completely ignored and have been pushed to sit in the back rows in the classroom. I always see them in the classrooms that I have visited so far. This process has made me to see them much better. I personally talk to them and pay effort to integrate them into the lesson now. They feel happier when they see that they also learn like the others. (Post Application Focus Group Interview) (Ext.67: 38).

The third code in rank order concerning frequency distribution of codes is "student engagement" as displayed by the table. The frequency count of the code is 15 which constitutes % 12,1 of the total number of associations within the theme. The extract given below stands as a sample for the association between "student engagement" code label and related data segment.

Extract 154

To find the overarching goal for the RL was not difficult for us because we all know well that student engagement into the lesson and their motivation is the one of the weakest sides in the language classrooms. (RL 1 Reflection Sheet) (Ext.21: 4).

With respect to the Participant 6's findings concerning lowest frequency codes within the theme, the table displays the existence of two codes with limited number of associations or no associations at all. The code label "uninterested students" was not attached to any data segments and has no association and so considered lowest frequency code. The second code "native language use" was linked to only two data segments as displayed by the table and the corresponding percentage of the frequency count of the code is % 1,6.

Briefly, when the distribution presented in Table 49 analyzed in general it's not possible to talk about a consistent distribution among partners with respect to highest frequency code labels. However, it could be stated the codes which were labelled as "language production", "allocation of attention", and "affective considerations", respectively are among the codes within the theme that have been most frequently applied to the data segments among more than half of the participants.

Concerning the codes that have the lowest frequency count within the learner theme, it can be seen in that table that code "uninterested students" is the one that is the least applied to the data segments or has no associations at all among all partners. In this sense, a consistent distribution was observed in terms of code/s with lowest frequency counts.

4.7. The Impact of Lesson Study on Participants' Classroom Management Skills in terms of Promoting Interaction in the Classroom

The existing section presents findings with respect to the impact of LS process on the participating pre-service ELT teachers' classroom management skills concerning promoting interaction in the classroom. The results are displayed by a table which includes the frequency of each code within "The Interaction" theme and the percentage of each code label that is proportioned to the total number of associations. The findings of each partner have been addressed separately and presented with relevant extracts. Only the highest and the lowest frequency code labels have been considered because of the space concerns as in the previous sections.

Table 52.

The Impact on Promoting Interaction in the Classroom

Codes	Participants											
	1		2		3		4		5		6	
	N	%	N	%	N	%	N	%	N	%	N	%
active participation of students	10	23,2	9	23,6	9	27,3	11	21,2	18	36,7	20	44,4
cooperation with classmates	2	4,7	4	10,5	N/A	0	2	3,8	2	4,1	4	8,8
disengagement	13	30,2	7	18,4	1	3	3	5,8	9	18,4	4	8,8
interaction among students	7	16,3	3	7,9	10	30,3	9	17,3	4	8,2	1	2,2
peer support	3	7	4	10,5	1	3	5	9,6	4	8,2	7	16
working in groups	8	18,6	11	28,9	12	36,4	22	42,3	12	24,5	9	20
TOTALS	43	100	38	100	33	100	52	100	49	100	45	100

With respect to Participant 1's findings it can be seen in the table that a total of 43 relevant data segments were attached to the code labels within "Interaction" theme. Two code labels, "disengagement", and "active participation of students" namely constitutes more than half of the total quotation number that is associated with the codes within the theme. In this sense, it not possible to argue a consistent frequency distribution among codes concerning the impact of LS intervention on Participant 1's classroom management skills in terms of promoting interaction in the classroom.

Table 50 clearly visualizes that the highest frequency code label is "disengagement". The code was linked to 13 data segment which corresponds to % 30,2 of the total code-quotation associations within the theme that is 43. The extract given below taken from Participant 1's data segment which is associated with "disengagement" code.

Extract 155

Unfortunately, the RL continued in a very quiet and unmotivated manner with nearly no engagement and participation at all. Just 2 students participated actively in the lesson and the others were just observing them inactively. (RL 3 Reflection Sheet) (Ext.48: 3).

The second code that was most frequently linked to Participant 1's data segment is "active participation of students" as presented by Table 50. The frequency count of the given code is 10 and the corresponding percentage value of the association is % 23,2. The extract provided below stands as an example of the association between "active participation of students" code label and related quotation.

Extract 156

Target vocabulary and phrases of the RL which were consolidated with the Narrative activity much better paved the way for active participation of students into Quiz show activity. (RL 1 Class Observation Sheet) (Ext.28: 20).

Concerning the code labels with the lowest frequency count, it is displayed in the table that two codes “cooperation with classmates” and “peer support” respectively were the ones that were linked to the minimum number of quotations when compared with other four codes within the theme. A total of two quotations were associated with “cooperation with classmates” code and percentage of the association is % 4,7 while three quotations linked to “peer support” code and the corresponding percentage value of the link is % 7.

Participant 2’s results present similar findings to Participant 1’s since the associations of two codes out of six within the theme constitutes more than half of the total quotations that are attached to the codes in the theme. The table clearly represents that a total of 38 data segments from Participant 2’s data pool were associated with the codes within the theme. The table further displays that the codes that have the highest frequency counts are “working in groups” and “active participation of students” respectively.

It can be seen in the table that “working in groups” is the most frequently applied code to the data segments chosen from Participant 2’s data pool. The code has been applied in 11 instances out of 38 and the groundedness of frequency constitutes % 28,9 of the total number of associations applied within the theme. The following extract exemplifies the relation between “working in groups” code label and related quotation.

Extract 157

Another crucial issue is group working. While preparing group working activities, teachers should be careful about the students sitting arrangement and the students can work collaboratively with their peers (RL 1, Reflection Sheet) (Ext.24: 5).

The following code in the rank order on the basis of frequency count is “active participation of students” as mentioned before. The frequency count of the code is 9 as illustrated by the table and the corresponding percentage of the association is % 23, 6.

The extract given below selected from the related associations between “active participation of students” and relevant data segment.

Extract 158

The students were very active. They were constantly asking questions to their peers or to the teacher about the lesson or activity. And almost all of them answered the questions in full sentences rather than in phrases. Their hands were all up to answer questions (RL 4, Post Lesson Discussion) (Ext.55: 47).

With respect to the code that has the lowest frequency count within “Interaction” theme, it can be seen in the table that the code label “interaction among students” is the one that is the least relevant to the Participant 2’s data pool since the frequency count of the code is 3 and the corresponding percentage of the association is % 7,9 as illustrated by table 50.

Participant 3 has the lowest number of quotations to which the codes within “Interaction” theme is applied. The table clearly portrays that a total of 33 data segments across Participant 3’s data sources were associated with the codes within the theme. The table further displays that two codes “working in groups” and “interaction among students” namely constitutes two third of the total quotations that are associated with the codes in the theme.

On the basis of the groundedness of the codes that displays the relevancy of each code label in the theme provided by Table 50, it can be seen that “working in groups” is the most relevant code in the theme since the code has been the one that is most applied to the relevant data segment. The frequency count of the code is 12 which corresponds to % 36,4 of the total number of associations within the theme. The extract provided below stands as a sample for the association between “working in groups” code and related quotation.

Extract 159

As for grouping the students, it is significantly important that the main aim should be working collaboratively among students. In this sense, the teacher should know each student very well and he should organize groups by considering them. In this application, group working did not flow as planned because some students led

their group as usual and the others just stayed passive. (RL 2, Reflection Sheet) (Ext.34: 7).

The second most frequently applied code to Participant 3's data segments related to promoting interaction in the classroom is "interaction among students" as provided by the table. On the basis of the frequency distribution of the codes, it is visualised in the table that the code was applied in 10 occasions and the percentage of the association that is proportioned to the total is % 30,3. In the extract given below, the example of the association between "interaction among students" code and relevant data segment is provided.

Extract 160

Especially, I admired interaction among students during the game activity which was stimulated by students' profile, well planned activities and good teacher management. (RL 4, Reflection Sheet) (Ext.58: 11).

Concerning codes with lowest frequency counts, the table illustrates that 3 codes out of 6, "cooperation with classmates", "disengagement" and "peer support" labels have the minimum relevancy or no relevancy with Participant 3's data segments. "Cooperation with classmates" code was not linked to any quotations related to Interaction theme and thus represented as not applicable in frequency distribution table given above. The other two code labels "disengagement" and "peer support" were associated with only one quotation for each as represented by the table. The percentage of association for each code label is % 3.

Participant 4's results displayed by Table 50 are rather distinctive when compared with the other participating pre-service ELT teachers. Participant 4 has the highest number of quotations that are associated with the codes within "Interaction" theme which is 52 as given in the table and one code only that is "working in groups" constitutes % 42,3 of the total quotation number. The frequency declines sharply in the following codes in Participant 4's frequency distribution table.

As it is already given, the code that is most frequently associated with the codes within "Interaction" theme is "working in groups" code label. The frequency count of the given code is 22 and the corresponding percentage of the association to the total is %

42,3. The extract provided below is a representative of the relation between “working in groups” code and relevant quotation.

Extract 161

When students feel discouraged while working individually, what should be done is to make them work in pairs or in groups so that expected results can be achieved by teachers (RL 1, Reflection Sheet) (Ext.22: 8).

With respect to the code labels with lowest frequency count, it can be seen in the table that two codes out of six have the lowest number of associations with the codes within “Interaction” theme and they are “cooperation with classmates” and “disengagement” codes respectively. The code labelled as “cooperation with classmates” has attached to only two quotations as represented by the table and the percentage of the association is % 3,8. The second code with lowest frequency count, “disengagement”, was applied in 3 occasions whose frequency count constitutes % 5, 8 of the total quotation number as given in the table.

Regarding the impact of LS process on Participant 5’s classroom management skills in terms of promoting interaction in the classroom, the table given above clearly presents that a total of 49 quotations were associated with the codes within the theme from Participant 5’s relevant data sources. The table further represents that “active participation of students” and “working in groups” code labels have the highest frequency distribution when compared with the other codes within the theme and the total associations of both code labels correspond to more than half of the total quotations that are associated with the codes within the theme.

On the basis of the frequency distribution shown in Table 50, it can be visualised that “active participation of students” is the code label that was most frequently associated with relevant quotations from Participant’s data pool. In this sense it could be argued that the given code is the most relevant code for Participant 5 concerning promoting interaction in the classroom. The code was applied in 18 instances and the percentage of the association that is proportioned to the total number is % 36, 7. The following extract exemplify the association between “active participation of students” code label and relevant data segment.

Extract 162

In conclusion, the motivational and engagement aspect of the students were very positive. Most students were highly keen to participate and enjoyed the final game activity (RL 2, Reflection Sheet) (Ext.32: 14).

The second most relevant code for Participant 5 within “Interaction” theme is “working in groups” as provided by the table. The code was attached to 12 quotations selected from data pool and the corresponding percentage of the association is % 24,5. In the extract given below, the association between “working in groups” and relevant quotation is exemplified.

Extract 163

The students are working in groups actively. The roles of the group members are definite and they fulfill their duties completely (Pilot Study, Lesson Observation Sheet) (Ext.8: 32).

With respect to the code/s with minimum or no relevancy, the table illustrates that “cooperation with classmates” code is the one that is associated with the lowest number of quotations within the theme. The frequency count of the code is 2 which constitutes only % 4,1 of the total number of associations.

With respect to Participant 6’s findings, a distinctive frequency distribution of codes exists since one code label “active participation of students” constitutes % 44,4 of the total number of associations that is 45 within “Interaction” theme. In this sense, the given code is the most relevant code for Participant 6 in terms of promoting interaction in the classroom since the frequency count of the code is 20. The frequency declines significantly in the following codes as given in the table. The following extract exemplifies the relation between “active participation of students” code and relevant quotation.

Extract 164

Nearly all the students were willing to answer the questions that RL teacher posed and they were so active and willing to show what they knew about topic without teacher’s questions even. That showed us that most of the students were actively

engaged in class and had high motivation from beginning to the end of the application. (RL 4, Reflection Sheet) (Ext.56: 4).

Regarding the code/s labels with lowest frequency distribution, the table presents that “interaction among students” code has associated with one data segment only and the percentage of the association is % 2,2. In this respect, it could be argued that “interaction among students” code is the least relevant code for Participant 6 concerning promoting interaction in the classroom.

All things considered, on the basis of the findings concerning the impact of LS intervention on participants’ classroom management skills in terms of promoting interaction in the classroom that is revealed in table 50, it is not possible to talk about a consistency in frequency distribution of codes within the theme. However, it could be argued that “active participation of students” and “working in group” code labels are the most relevant items to the data segments since both codes are among the most frequently applied codes for four participants. Concerning the code/s with the least relevancy, a consistency does not exist in the findings. However, the frequency of the code “cooperation with classmates” is the lowest for four participants as presented in table 50 and it could be stated that it is the least relevant code label to the data pool.

4.8. The Overall Impact of Lesson Study on Participants’ Personal and Professional Development

This section presents the findings related to the overall impact of LS process on participants’ development. It includes tables for each participant displaying the frequency distribution of each theme in order to demonstrate the theme/s that have the highest or lowest frequency in order to define the relevancy for each participant. Within this perspective, the findings for each participant have been presented separately in the following subheadings.

4.8.1. The Overall Impact of Lesson Study on Participant 1’s Personal and Professional Development

The following table given below represents the frequency of each theme reviewed in the whole LS process for Participant 1 for the purpose of revealing the findings presenting the overall impact of LS intervention on Participant 1’s development.

Table 53.

The Overall Impact on Participant 1

THEMES	Pilot St.		RL1		RL2		RL3		RL4		Post App.		TOTALS:	
	N	%	N	%	N	%	N	%	N	%	N	%	N	%
*Interaction	10	25	9	23	5	13	7	18	9	23	0	0	40	9
*Personal Development	31	25	33	26	22	18	25	20	6	5	9	7	126	28
*Professional Development	5	13	10	26	0	0	1	3	1	3	22	56	39	9
*Teacher Interventions	19	17	35	31	22	20	15	13	19	17	3	3	113	25
*The Classroom	0	0	3	38	3	38	0	0	2	25	0	0	8	2
*The Learner	11	14	28	35	11	14	10	13	15	19	5	6	80	18
*The Lesson	15	42	5	14	4	11	7	19	4	11	1	3	36	8
*The Teacher	0	0	8	67	1	8	2	17	1	8	0	0	12	3
TOTALS:	91	20	131	29	68	15	67	15	57	13	40	9	454	100

It can be seen in the table that a total of 454 data segments from Participant 1's data sources were associated with the codes obtained for the whole study. It is also presented that a steady and consistent increase or decrease does not exist among data sources which are consisted of pilot study, RL 1, RL 2, RL 3, RL 4 and post application documents.

It is obvious in the table given above that the theme that has the highest frequency level is "personal development". A total of 126 quotations or data segments were associated with the codes within "Personal Development" theme as illustrated by the table and the number constitutes % 28 of the total number of quotations that are associated with the codes from Participant 1's data sources. In other words, it could be stated that "personal development" is the most relevant theme to Participant 1's data sources when the whole study is considered. The table further presents that the frequency does not display a consistent increasing or decreasing trend since the frequency both increases or declines among each data sources. However, it can be seen that generally the frequency is highest in pilot study and RL 1 and it represents a decreasing trend in the following data sources.

The table further presents that the second most relevant theme to Participant 1's data pool is "teacher interventions" since it is the second most frequent theme on the basis of the number of associations with the involving codes and relevant data segment. A total of 113 data segments were associated with the codes within teacher interventions theme as shown in the table which corresponds to % 25 of the total number of associations from Participant 1's data sources. In addition, the highest number of associations was applied with the codes within "teacher interventions" theme in RL 1 as in the previous theme

mentioned above and an inconsistent decrease in terms of frequency distribution exists in the following data sources.

The third most relevant theme to Participant 1's data sources is "the learner" theme which included codes concerning learner related issues triggered by LS process. The table clearly portrays that a total of 80 quotations were attached to the codes within "the learner" theme and the number constitutes % 18 of the the total number of associations from Participant 1's data sources. As in the previous most frequent themes, the highest number of associations with the codes was applied in RL 1. The number of code-quotation association in RL 1 is 28 which corresponds to % 35 of the total number of associations applied concerning "learner" theme. The table further represents that a decrease in frequency exists in the other data sources following RL 1 but it is not consistent.

Concerning the themes with the least relevancy, the table presents that "the classroom" and "the teacher" themes have the lowest frequency distribution respectively. Only 8 data segments were linked to the codes within "the classroom" theme and the number corresponds to only % 2 of the total number of associations applied to the codes from Participant 1's data sources. Similarly, a total of 12 data segments were attached to the codes within "the teacher" theme and the corresponding percentage of the associations to the total is % 3 only. In this respect, both themes have been considered to be the least relevant to Participant 1's data when compared with the other themes.

4.8.2. The Overall Impact of Lesson Study on Participant 2's Personal and Professional Development

The following table displays the frequency distribution of themes reviewed in the whole LS process for Participant 2 in order to represent the findings presenting the overall impact of LS intervention on Participant 2's development.

Table 54.

The Overall Impact on Participant 2

THEMES	Pilot St.		RL1		RL2		RL3		RL4		Post App.		TOTALS:	
	N	%	N	%	N	%	N	%	N	%	N	%	N	%
*Interaction	8	23	15	43	6	17	3	9	2	6	1	3	35	4
*Personal Development	55	18	104	35	61	20	60	20	10	3	9	3	299	35
*Professional Development	17	30	14	25	1	2	3	5	4	7	17	30	56	6
*Teacher Interventions	32	16	68	35	60	31	21	11	12	6	3	2	196	23
*The Classroom	6	33	8	44	2	11	0	0	1	6	1	6	18	2,1
*The Learner	32	23	42	30	23	16	18	13	20	14	5	4	140	16
*The Lesson	29	33	27	31	16	18	13	15	1	1	1	1	87	10
*The Teacher	8	22	14	39	5	14	3	8	3	8	3	8	36	4
TOTALS:	187	22	292	34	174	20	121	14	53	6	40	5	867	100

The table clearly presents that a total of 867 data segments from Participant 2's data sources were attached to 96 code labels subsumed by 8 themes. In this respect, the number of quotations associated with the codes from Participant 2's data sources is nearly two times more than Participant 1's code-quotation association number. When the table is analyzed in detail, it is not possible to talk about a steady increase or decrease among data sources labelled as pilot study, RL 1,2,3,4 and post application documents but as in the previous partner the awareness is the highest in RL 1 for each theme since the total number of quotations associated with the codes corresponds to % 34 of the total number of associations. The frequency decreases steadily in the following data sources as displayed by the table.

The table further shows that the theme that has the highest frequency level is "personal development" A total of 299 quotations from Participant 2's data sources were linked to the codes within personal development theme and the frequency number corresponds to more than one third of the total quotation number which is 867. Within this perspective, the most relevant theme to participant 2's data sources is personal development as in the previous partner. Another important finding is code quotation association number is highest in RL 1 within personal development theme. A total of 104 data segments were associated with the codes within personal development theme and the percentage of the association is % 35. The frequency decreases steadily in the following data sources which could be attributed to the stabilization of the perception concerning LS process.

Personal development theme is followed by teacher interventions on the basis of frequency distribution which is considered as the second most relevant theme to Participant 2's data sources. The table illustrates that 196 quotations were attached to the codes within teacher interventions theme whose percentage to the total is % 23. As in personal development theme, the highest number of code –quotation link was attained in RL 1 as illustrated by the table and a consistent decrease in frequency was observed in the following data sources.

With respect to the theme/s that has the lowest relevancy to Participant 2's data sources, it can be seen in the table that two themes, "Interaction" and "The Teacher" have the lowest frequency number concerning associations with the codes within the theme respectively. A total of 35 data segments were linked to the codes within Interaction theme and the percentage of the association is % 4. Similarly, 34 quotations were attached to the codes within The Teacher theme and the number corresponds to % 4 of the total number of code-quotation associations. In this respect, both themes have been considered to be the least relevant to Participant 2's data sources.

4.8.3. The Overall Impact of Lesson Study on Participant 3's Personal and Professional Development

The table provided below displays the findings concerning the overall impact of LS process on Participant 3's personal and professional development. It includes the frequency distribution of each theme across data sources together with the percentage values proportioned to the total number.

Table 55.

The Overall Impact on Participant 3

THEMES	Pilot St.		RL1		RL2		RL3		RL4		Post App.		TOTALS	
	N	%	N	%	N	%	N	%	N	%	N	%	N	%
*Interaction	2	7	5	18	8	29	2	7	11	39	0	0	28	9
*Personal Development	23	25	20	22	12	13	25	27	5	5	7	8	92	28
*Professional Development	10	31	1	3	0	0	1	3	3	9	17	53	32	10
*Teacher Interventions	17	23	15	20	10	14	10	14	16	22	6	8	74	23
*The Classroom	2	33	3	50	0	0	1	17	0	0	0	0	6	2
*The Learner	9	16	21	38	9	16	8	15	7	13	1	2	55	17
*The Lesson	11	37	6	20	4	13	6	20	1	3	2	7	30	9
*The Teacher	1	13	2	25	2	25	0	0	0	0	3	38	8	3
TOTALS:	75	23	73	23	45	14	53	16	43	13	36	11	325	100

The table visualizes that a total of 325 data segments from participant 3's data sources were associated with the codes subsumed by 8 themes during the whole study. In this respect, Participant 3 has the lowest number of code-quotation associations when compared with the other participants. It is clear in the table that the frequency distribution codes within each theme is inconsistent across data sources since the distribution represents fluctuating trend. The table further represents that across data sources, the highest number of code-quotation association was obtained in RL 1 and pilot study respectively.

Concerning the most grounded themes it can be observed that Participant 3 represents similar tendency with the previous two partners. It is clearly visualized in the table that the theme that has the highest number of associations with the codes within is "Personal Development". A total of 92 data segments were associated with 7 codes within the theme and the percentage of the distribution to the total is % 28. Therefore, it could be claimed that Personal Development theme is the most relevant theme to Participant 3's data sources. With respect to the frequency distribution of associations within Personal Development theme across data sources, it is not possible to talk about a consistent distribution. The highest number of associations were obtained in the pilot study as visualised by the table. A total of 23 data segments were associated with the codes in the pilot study. The number corresponds to % 25 of the total number of associations concerning personal development.

Personal Development theme is followed by "Teacher Interventions" theme on the basis of the groundedness. A total of 74 data segments were associated with the codes within theme and the corresponding percentage of the associations is % 23. In this sense, Teacher Interventions theme is the second most relevant theme to Participant 3's data sources. When the frequency distribution in Teacher Interventions theme is analyzed across data sources, it can be seen that a decreasing trend is existent except RL 4. The highest number of associations were seen in pilot study as in the most grounded theme (Personal Development). The number of code-data segment association in pilot study is 17 which corresponds to % 23 of the total.

Concerning the least relevant themes, the table presents that "The Classroom" and "The Teacher" themes respectively have the lowest number of associations when compared with the others. A total of 6 data segments were associated with the codes within The Classroom theme only and the number constitutes % 2 of the total number of while 8 data quotations were linked to the codes within The Teacher theme whose

corresponding percentage value to the total is % 3 only. In this sense, both themes have been considered as least relevant ones to Participant 3's data sources. When the least distributed themes have been compared with the previous two partners, it is possible to talk about a similarity since both The Classroom and The Teacher themes are the least frequent and thus the least relevant to all 3 partners' data sources.

4.8.4. The Overall Impact of Lesson Study on Participant 4's Personal and Professional Development

The table provided below compares the groundedness of each theme and includes the frequency count across data sources. It also includes the percentage value of the frequency distribution proportioned to each data source and the total number of quotations that are attached to the code labels for the purpose of representing the overall impact of LS process on Participant 4's personal and professional development.

Table 56.

The Overall Impact on Participant 4

THEMES	Pilot St.		RL1		RL2		RL3		RL4		Post App.		TOTALS	
	N	%	N	%	N	%	N	%	N	%	N	%	N	%
*Interaction	14	28	14	28	7	14	7	14	8	16	0	0	50	9
*Personal Development	19	13	35	24	23	16	45	31	14	10	7	5	143	26
*Professional Development	7	18	6	15	2	5	4	10	14	35	7	18	40	7
*Teacher Interventions	18	15	39	32	17	14	22	18	23	19	3	2	122	23
*The Classroom	0	0	15	75	4	20	0	0	1	5	0	0	20	4
*The Learner	24	24	31	31	15	15	19	19	11	11	1	1	101	19
*The Lesson	13	24	15	27	3	5	10	18	12	22	2	4	55	10
*The Teacher	3	33	2	22	2	22	1	11	1	11	0	0	9	2
TOTALS:	98	18	157	29	73	14	108	20	84	16	20	4	540	100

In general, the table presents that a total of 540 data segments from Participant 4's data sources were linked to the codes under eight themes during the whole study. It is not possible to talk about a consistent distribution of frequency across data sources since the frequency both increases and decreases in each data source. On the basis of the totals, it can be seen that the highest number of quotations were attached to the code labels in RL 1 as in the previous three participants. A total of 157 data segments were associated with the codes which constitutes % 29 of the total number of code-quotation associations.

Participant 4 also represents similar trend with the previous partners concerning frequency distribution of themes. The table clearly visualizes that the codes under

“Personal Development” theme has been the most frequently applied to Participant 4’s data segments. A total of 143 quotations were attached to the codes under personal development theme and the frequency count corresponds to more than one fourth (% 26) of the total quotation number. In this sense, it could be stated that personal development theme is the most relevant theme to participant 4’s data segments when the whole study is considered.

The second most frequent theme that is followed by personal development is “Teacher Interventions” as it is shown in the table. The total number of quotations that are associated with the codes under the theme is 122 and the percentage value of the associations with the codes under teacher interventions theme is % 23. Therefore, it could be argued that teacher interventions theme is the second most relevant theme to Participant 4’s data sources.

The third most relevant theme to participant 4’s data pool is “The Learner” as represented by the table. A total of 101 quotations were associated with the codes concerning learner related issues and the number corresponds to % 19 of the total number of associations linked to the whole codes in the study.

Concerning least grounded themes, the table visualizes that “The Teacher” theme is the least relevant theme to Participant 4’s data sources. It can be seen that only 9 quotations were associated with the codes under the The Teacher theme which constitutes only % 2 of the total number that is 540. The second least theme to Participant 4’s data is “The Classroom” theme as visualised by the table. The number of quotations that are associated with teacher related issues is 20 which corresponds to % 4 of the total.

4.8.5. The Overall Impact of Lesson Study on Participant 5’s Personal and Professional Development

The table given below displays the findings concernin the overall impact of LS intervention on Participant 5’s Personal and Professional Development. It includes the frequency distribution of themes and their percentage to the total number of quotations assigned to the codes under the themes in order to present the most relevant and the least relevant themes to Participant 5’s data. Additional the frequency distribution across each data source was provided in the table for the purpose of analysing whether a consistent distribution exists or not.

Table 57.

The Overall Impact on Participant 5

THEMES	Pilot St.		RL1		RL2		RL3		RL4		Post App.		TOTALS:	
	N	%	N	%	N	%	N	%	N	%	N	%	N	%
*Interaction	13	28	12	26	5	11	10	21	6	13	1	2	47	7
*Personal Development	66	34	42	21	36	18	32	16	11	6	9	5	196	29
*Professional Development	15	31	10	20	5	10	1	2	0	0	18	37	49	7
*Teacher Interventions	40	22	52	29	47	26	19	11	16	9	4	2	178	26
*The Classroom	0	0	11	58	6	32	1	5	1	5	0	0	19	3
*The Learner	38	34	26	23	15	13	19	17	12	11	3	3	113	16
*The Lesson	23	40	13	23	11	19	4	7	5	9	1	2	57	8
*The Teacher	7	26	9	33	6	22	2	7	2	7	1	4	27	4
TOTALS:	202	29	175	26	131	19	88	13	53	8	37	5	686	100

The table visualizes that 686 data segments selected from Participant 5's data sources were associated with the codes subsumed by 8 themes. When the frequency distribution in the totals is analyzed in detail it can be seen that a consistent distribution exists across data sources unlike the other participants. The table clearly represents that there is steady decrease in frequency counts beginning from pilot study to post application documents in Participant 5's data sources. The table further shows that the highest number of code-quotation associations were applied in pilot study and RL 1 respectively. A total of 202 quotations were linked to the codes in pilot study and a total of 175 data segments were linked to the codes in RL 1. The total percentage of both data sources frequency count corresponds to more than half of the total which is 686.

With respect to the themes that has the highest number of associations, the table provides similar findings to those of the previous four partners. It is obvious in the table that "Personal Development" theme is the most relevant theme to Participant 5's data because the theme has the highest number of quotations that are associated with the codes within when compared with the other themes. A total of 196 data segments were attached to the codes subsumed by Personal Development theme which constitutes % 29 of the total number of quotations that are linked with the whole codes. In line with the distribution in the totals, the highest number of associations with the codes was applied in pilot study and the distribution decreases steadily in the following applications

Personal development is followed by "Teacher Interventions" theme in terms of relevancy as shown in the table. In other words, "Teacher Interventions" theme is the second most relevant theme to Participant 5's data. The number of quotations that are

attached to the codes within the theme is 178 which corresponds to % 26 of total number as displayed by the given table above. When the distribution is analyzed across applications, it can be seen that a consistent frequency distribution does not exist in the theme. The highest number of associations between the codes and quotations exist in RL 1 and it is followed by RL 2 and pilot study respectively. The distribution becomes steady in the following data sources since it decreases consistently.

The table further represents that the least grounded themes on the basis of Participant 5's data are "The Classroom" and The Teacher" respectively. In this sense, both themes have been considered to be the least relevant themes to Participant 5's data. A total of 19 quotations were linked to the codes within the classroom theme as illustrated by the table and the number corresponds to % 3 of the total number. Similarly, The number of data segments that are attached to the codes within the teacher theme is 27 which constitutes only % 4 of the total number. Another important finding is that Participant 5's findings concerning the least relevant themes represent similarity with the previous 4 partners'.

4.8.6. The Overall Impact of Lesson Study on Participant 6's Personal and Professional Development

The table given below displays the findings concerning the overall impact of LS process on Participant 6's personal and professional development on the basis of the frequency distribution of each theme provided which represents the the most and the least relevant themes to Participant 6's data.

Table 58.

The Overall Impact on Participant 6

THEMES	Pilot St.		RL1		RL2		RL3		RL4		Post App.		TOTALS:	
	N	%	N	%	N	%	N	%	N	%	N	%	N	%
*Interaction	14	33	6	14	7	17	6	14	9	21	0	0	42	7
*Personal Development	46	24	32	17	49	26	39	20	17	9	9	5	192	31
*Professional Development	9	18	10	20	2	4	11	22	1	2	16	33	49	8
*Teacher Interventions	19	15	23	18	31	24	36	27	21	16	1	1	131	21
*The Classroom	2	18	4	36	1	10	3	27	1	10	0	0	11	2
*The Learner	22	19	19	16	33	29	18	16	18	16	4	4	114	18
*The Lesson	14	23	11	18	15	25	13	22	2	3	5	6	60	10
*The Teacher	7	33	3	14	2	10	8	38	1	5	0	0	21	3
TOTALS:	133	22	108	17	140	23	134	22	70	11	35	6	620	100

According to the table, a total of 620 data segments selected from Participant 6's data were assigned to the 96 code labels structured under 8 themes. When the table is analyzed extensively, it can be seen that a consistent decrease or increase in the frequency distribution across data sources does not exist. Additionally, unlike the other participants whose highest number of associations with the codes obtained in RL 1 or pilot study, Participant 6's findings revealed that the highest number of associations were obtained in RL 2 and RL 3 respectively as presented in the totals. However, concerning the most and the least relevant themes to Participant 6's data, similar result were observed with the other participants in the study.

With respect to the groundedness calculated on the basis of the frequency count of the codes within the theme, the table clearly visualizes that the codes that is most frequently applied to Participant 6' data segments are subsumed by "Personal Development" theme as in the other participants. A total of 192 quotations were associated with the codes within personal development theme and the percentage of the association number to the total is % 31. Nearly one third of the 620 quotations were associated with the codes within personal development theme. In this respect, it is possible to state that Personal Development theme is most relevant to Participant 6's data as in the other five participants. When the frequency distribution of quotations in personal development theme is analyzed across data sources, a consistent distribution is not evident as it is already mentioned.

The second theme that is most relevant to Participant 6's data is "Teacher Interventions" as represented by the table. In this respect, Participant 6's findings display similar trend with the other participants' since "Teacher Interventions" theme is observed as the second most relevant theme to the other five participants' data. The number of quotations that are assigned to the codes within the theme is 131 which constitutes % 21 of the total number. Concerning the distribution of codes within data sources, a consistency was not observed as in Personal Development theme.

With respect to the themes with the lowest groundedness, the table displays that "The Classroom" and "The Teacher" themes has the lowest number of associations with the codes within respectively when compared with the other themes. Only 11 associations were applied with codes within the classroom theme and the percentage value of the associations to the total is % 2. Similarly, the number of data segments linked to the codes within the teacher theme is 21 which constitutes just % 3 of the total. In this sense, both themes have been considered to be the least relevant themes to Participant 6's data.

All things considered, concerning overall impact of LS, it was observed that the themes that are most relevant to all six participants' data are "Personal Development" and "Teacher Interventions". In this sense, it is possible to suggest that LS process had a major impact on participating preservice ELT teachers in terms of personal development and teacher interventions as perceived by them. The least impact was observed in "The Classroom" and "The Teacher" related issues as it was seen that both themes have been the least relevant to five participants' data. Only for Participant 2, the least impact was observed in "Interaction" theme instead of "The Teacher" theme. Concerning frequency distribution of codes across data sources a consistency was not observed except Participant 5. The number of quotations attached to the code labels decreases steadily with each application in Participant 5's data as mentioned before. Generally, the highest number of associations were applied in Pilot Study and RL 1 except Participant 6 whose highest number of associations were obtained in RL 2 and RL 3.

CHAPTER V

DISCUSSION

5.1. Introduction

This section discusses the findings of the present study which aims to investigate the impact of LS Intervention on participating preservice ELT teachers' professional development. A second objective is to contribute to research on preservice language teacher education by offering individual professional development through established collaboration and self critical reflection enabled by LS process. The findings attained through the analysis of large volume of data with Atlas.Ti qualitative software were presented with relevant quotations in the previous chapter in line with the research questions guiding the focus of the study.

This chapter is guided by the research questions and sub research questions as in the previous chapter. Within this perspective, the following research questions were addressed and discussed in detail on the basis of the relevant literature presented before.

1. Does participation in Lesson Study have an impact on Turkish preservice teachers of English?
2. Does Lesson Study Professional Development Model have an impact on professional development of Turkish preservice teachers of English?
 - a. If so, how does each participant perceive the contribution of Lesson Study process to their professional development?
3. Does Lesson Study Professional Development Model have an impact on participants' personal development?
 - a. If so, how does each participant perceive the contribution of Lesson Study process to their personal development?
4. Does Lesson Study Process have an impact on the participants' classroom management skills in terms of
 - a. teacher interventions?
 - b. learner related issues?
 - c. promoting interaction in the classroom?

5. In general, how do participants evaluate overall impact of Lesson Study process to their development?

5.2. The Impact of Lesson Study on Turkish Preservice Teachers of English

The results obtained through the analysis of data collected from variety of sources including focus group interviews, lesson planning meetings, post lesson discussion meetings, lesson observation sheets and reflective journals with Atlas.Ti qualitative software programme revealed that LS had an impact on participating preservice ELT teachers in varying degrees under eight major categories respectively. These are;

- personal development,
- teacher interventions,
- learner related issues,
- the lesson
- professional development
- interaction in the classroom
- teacher related issues
- the classroom.

In this respect, it could be claimed that LS is a vital tool leading to instructional improvement for prospective ELT teachers which cohered with the findings of the previous research suggesting the importance of LS in personal and professional development of both prospective and practicing teachers (Sims & Walsh, 2009; Dudley, 2011; Hart, Alston, & Murata, 2011; Lewis, 2009; Lewis & Hurd, 2011; Murata, 2011).

The highest impact on the participants was observed in their personal development since nearly one third of the quotations referenced during the whole study process was associated with personal development. Within this perspective, it could be stated that the participants seem to perceive LS contributed to their personal development most. In this sense, the present study revealed similar findings with Lomibao (2016) who observed strong impact of LS on participating Mathematics teachers' personal development and Lewis (2009) who discussed three types of teacher learning during LS process contributed to instructional improvement, knowledge about teaching, interpersonal relationships and personal development.

A point worth mentioning is that although the literature portrays wide array of research concerning the impact of LS on professional development of practicing teachers, the attempts to investigate the impact on personal development of preservice teachers have not been established yet. In this respect, the study could be argued to become preliminary as it provides findings related to the personal development of preservice ELT teachers that is enabled by LS.

When the data in table 18 is considered, it can be seen that the second most relevant association to six participants is observed in the teacher interventions which included participant quotations concerning instructional strategies to create an effective learning environment. As Cerbin and Bill (2011) pointed out, one of the primary aims of LS is improving the practices and strategies of participating teachers. In this sense, LS process had a considerable impact on the participating preservice ELT teachers' instructional strategies on the basis of the findings obtained which correlated with the research findings of Meyer (2006) who listed a number of improvements in the instructional strategies of practicing participants in her doctoral dissertation. Similarly, the finding is in line with Rock and Wilson's study (2005) who observed a significant impact of LS as a means for teacher instructional practice and Lawrence and Chong's research (2010) who suggested successful instructional improvement through LS process. Additionally, the existing literature presents strong positive impact of LS on preservice teachers' teacher interventions and strategies (Cohan & Honigsfeld, 2006; Marble, 2006; Villalon, 2016) as in the present study.

The third most influential impact of LS practice on the participating preservice teachers was observed in learner related issues as mentioned before. Originally, LS emerged as a form of professional development aimed to develop teachers' practical knowledge about teaching with a purpose of enhancing student learning. In this sense, one of the main characteristics of LS process is broadening teachers' perspectives about student learning (Dudley, 2011; Murata, 2011; Fernandez & Yoshida, 2004; Marble, 2006). Darling and Hammond (1997) has stated that any forms of professional development that is not linked to student achievement and student learning does not provide expected impact on participating teachers (as cited in Saito, Masatsugu, Tsukui, & Yeo, 2015). Within this perspective, the present study provided some empirical evidence that is in line with the existing literature as it provided positive outcomes for the participating preservice teachers concerning learner related issues that are enabled by LS procedure.

The present study further revealed that LS process had a considerable impact on participating preservice ELT teachers' lesson planning skills in terms of organizing effective lessons that is motivating, engaging and rich in activities. It has been acknowledged in the literature that preservice teacher education programmes are not effective interventions (Zeichner et al., 1987) as they have limited impact on the prospective teachers (as cited in Roberts, 1998). Roberts (1998) further stated that the abstract knowledge provided by initial teacher training was not personalized because of the lack of direct experience. As a result, preservice teachers are less able to plan a lesson successfully. In this respect, it could be suggested that the present study provided valuable first hand experience for the participating preservice ELT teachers which filled the gap in the development of expertise in planning an effective lesson. Within this perspective, the present study provided empirical support to existing research evidence that has underlined the effect of LS process on participating preservice teachers developing their lesson planning skills on the basis of student learning (Pothen & Murata, 2008; Sims & Walsh, 2009; Cohan & Honigsfeld, 2006).

The findings also revealed that LS process provided opportunities for professional learning for the participants which resulted in substantial impact on the professional development of participating preservice ELT teachers (Coenders & Verhoef, 2018; Lewis, 2000; Cheryl & Francis, 2010; Hurd & Musso, 2005). On the basis of the results, it could be argued that the prospective ELT teachers participating the study increased their awareness about the complexity and multifaceted nature of teaching and gained a critical lens about student learning in the classroom (Marble, 2006; Lewis, 2000; Jennifer & Parker, 2010). Additionally, it could be claimed that the process raised participants' awareness about the benefits of collaborative work environment since it provided opportunities for working in a collaborative environment and helped them overcome their prejudices against collaboration (Cajkler, Wood, Norton, Pedder, & Xu, 2014, Murata & Pothen, 2011; Fernandez & Robinson, 2006). Within this perspective it could be suggested that LS process promoted lasting impact on the professional development of the participating preservice ELT teachers.

Furthermore, the results also revealed that LS intervention had impact on the participating prospective ELT teachers' concerns about promoting interaction in the classroom, but the influence is not as significant as in the previous categories. The result could be attributed to the student learning oriented perspectives of the participants about teaching that is enabled by LS process. The literature does not offer research specifically

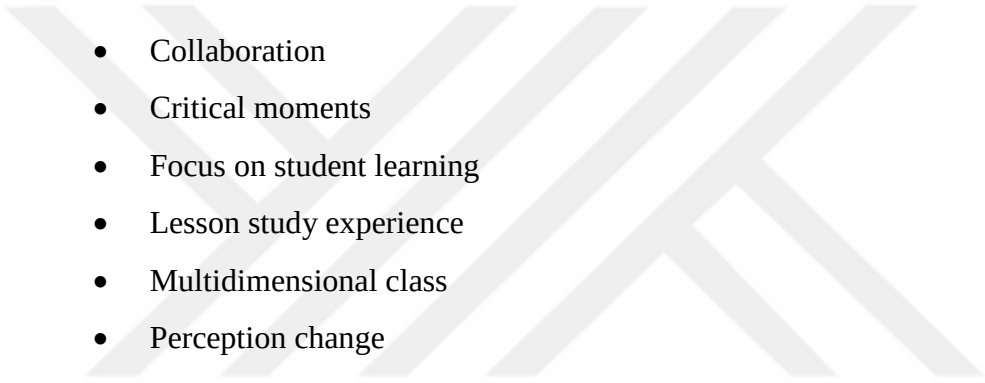
about the impact of LS process on participants concerning increasing awareness about student interaction in the classroom. However, it has been acknowledged by Murata (2011, p. 4) that LS process has direct influence to teacher learning as it stimulates a new perspective about teaching that is teaching is not a one way didactic process rather it is a two way integration of students' ideas and content exploration meaningfully. It is clearly noted by Murata (2011) that LS aims to bring reform to teaching where the focus is on student learning and actual classroom interaction by breaking the traditional practices of traditional teaching. Similarly, Cajkler (Cajkler et al., 2014) reported that one of the impacts of LS process on the participants were related to the changes in teachers' thinking about classroom practice since one inexperienced teacher reported that she moved away from traditional teacher fronted teaching perspective as she realized the importance of interactive activities in student learning, that's an unlikely development without LS experience. Within this perspective, it could be claimed that the finding is consistent with the existing literature presenting the impact of LS process on the participants.

It was also observed that LS intervention had a certain degree of impact on the participants concerning teacher related issues which coheres with the findings of Myers (Myers, 2012) but the results revealed that the impact is not as strong as in the previous findings. However, it was seen that the process raised awareness about variety of issues such as how to address to students in the classroom, how to use body language, the teachers' instructional style, learner centred instruction (Cajkler et al., 2014), native language use, teacher positioning during tasks, teacher effort and technology use, all of which considered to facilitate successful student learning in the classroom.

Lastly, the results revealed that the least impact that is enabled by LS intervention on the participating preservice ELT teachers was observed in classroom related issues which the participants' attention were diverted to the physical layout of the classrooms such as seating arrangement, technological infrastructure etc. in which the RLs were applied. The participants reported that although they were aware of the effect of classroom environment to teaching and learning process, they were able to see it at first hand while observing student learning during RLs. Although the relevant literature presents wide array of empirical evidence about LS and its impact on the participants, research concerning classroom related impact on the participants does not exist. In this sense, this study could be regarded as preliminary since it brings out a different impact of LS procedure on the participants that has not been revealed before.

5.3. The Impact of Lesson Study on Professional Development of Turkish Preservice Teachers of English

With respect to the impact of LS intervention on the professional development of participants, the results revealed that the process contributed to the professional development of participating preservice ELT teachers significantly in a number of ways as perceived by the participants. This is in line with the existing literature that investigated the effect of LS process on the professional development of teachers (Fernandez C. , 2002; Lewis, 2000; Rock & Wilson, 2005, Coenders & Verhoef, 2018). Although the perceived impact was not the strongest as mentioned before, LS process had a significant impact on the participants in terms of following issues.

- 
- Collaboration
 - Critical moments
 - Focus on student learning
 - Lesson study experience
 - Multidimensional class
 - Perception change
 - Professional development
 - Reflective teaching
 - Research based thinking
 - Theory-practice
 - Threatening effects of Lesson Study
 - Traditional teaching
 - Traditional teaching VS Lesson Study

The network view revealed visual and semantic representation of the relationship among codes in the professional development theme. On the basis of the diagram, a number of relationships were obtained among each code label which presented participants' overall perception of LS process with respect to professional development.

The results presented in the network view revealed that co-occurrences among code labels centred around six code labels which indicated bidirectional association among lesson study experience, collaboration, professional development, perception change, focus on student learning, multidimensional class code labels respectively at varying

degrees as perceived by the participants. The finding could be attributed to the participants underlying system of personal constructs that they applied while making sense of LS intervention (Kelly, 1955, as cited in Sendan & Roberts, 1998). It could be argued that the participants might have associated LS intervention in promoting collaboration, contributing to their professional development, stimulating changes in the existing perceptions about teaching, sharpening their awareness about student learning and multidimensional nature of classroom environment on the basis of their personal constructs. Although, certain other bidirectional co-occurrences existed on the basis participants' perceptions, the associations were not as significant as in the previous co-occurrences afore mentioned.

5.3.1. Participants Perception of the Impact of Lesson Study to Their Professional Development

Participant 1's findings obtained through frequency analysis revealed that LS process contributed to the professional development of Participant 1 in a number of ways but to a varying extent.

On the basis of the frequency count of the codes within professional development theme, the strongest impact was observed in "perception change" as stated by Participant 1. In other words, it could be suggested that Participant 1 perceived that LS process led to certain significant changes in his/her perception concerning teaching and learning process. Within this perspective, the finding is in line with the existing literature which investigated the changes in teachers' thinking and conceptual framework triggered by LS procedure (Murata & Takahashi, 2002; Cajkler & Wood, 2016).

The second major impact of LS process was observed in collaborative skills of Participant 1 as mentioned before. LS process provided opportunities for the participant to collaborate purposefully with the peers which enabled critical lenses towards teaching and learning process as stated by him/her. Through RL cycles that were collaborative in nature, the participant emphasized the importance of collaboration in his/her professional development that was triggered by LS in his/her statements. In this respect, the present study provides empirical evidence about the impact of LS process on the participant concerning collaboration among preservice and inservice teachers that have been reported by various researchers in relevant literature (Fernandez M. L., 2009; Murata &

Pothen, 2011; Rock & Wilson, 2005; Fernandez & Robinson, 2006; Chong & Kong, 2012; Fernandez & Yoshida, 2004).

Another strong impact of LS process on the professional development of Participant 1 was related to the restructuring of thinking about teaching and hence improving instruction as a result of “lesson study experience.” Within this perspective, LS process offers an invaluable professional development opportunity for the preservice teachers that evokes positive changes in teachers’ thinking and practices which lead to improvement in student learning (Guskey, 2002).

Concerning professional development of Participant 2, the frequency analysis of data sources revealed that the strongest impact of the LS process on the professional development of Participant 2 was observed regarding multidimensional nature of classroom environment. LS process raised an awareness for Participant 2 about unpredictable nature of classroom environment because of the minute by minute dynamics of classroom encounters as suggested by Wright (2005). In this sense, it could be claimed that the finding is clearly in line with the assertion provided by William and Kopp (2006) who expressed that LS is an effective way to promote long term professional development as it responds to the demands of multidimensional classroom.

The results also revealed that LS process had a strong positive impact on Participant 2’s professional development as it claimed to have promoted changes in implicit beliefs and perceptions about teaching. It has been acknowledged in the literature that initial teacher education programmes have a limited impact on the preservice teachers since they filter input because of the dependence on personal experience (Roberts 1998). In this sense, Roberts (1998) states that preservice teachers should be provided opportunities of direct experience in order to personalize ITE input since learning to teach requires changes in thought, perception, feeling and skills and LS ensures changes in perception about teaching (Yakar & Turgut, 2017; Hobenshield Tepylo & Moss, 2011) as offered in the present study.

It was also seen that “lesson study experience” exerted a powerful impact on the professional development of Participant 2 as perceived by him/her. The participant emphasized that LS process offered privilege for him/her as it provided opportunities for a prospective teacher to try out new strategies to teach a variety of students from different socio-economic background and language proficiency levels. Within this perspective, the present study supports the findings of the relevant research which presented that LS process opened the way for professional development opportunities for the teachers

(Cohan & Honigsfeld, 2006; Lewis, 2000; Cajkler & Wood, 2016; Cerbin, 2011; Fernandez, 2002).

Participant 3's perception of LS process to his/her professional development is similar to that of Participant 1. The findings revealed that "lesson study experience" had the strongest impact on the professional development of Participant 3 as stated by him/her since the experience caused a significant conceptual change related to learning and teaching process in the classroom (Guskey 2002).

The second major impact of LS process on the professional development of Participant 3 was observed in his/her collaborative skills. The participant clearly expressed that the process caused to shift his/her perception about working in a collaborative environment that was enabled by LS which contributed a lot to his/her professional development. Therefore, the finding is in line with the existing literature on the contribution of LS to the collaborative skills of the participants (Fernandez M. L., 2009; Murata & Pothen, 2011; Rock & Wilson, 2005; Fernandez & Robinson, 2006; Chong & Kong, 2012; Fernandez & Yoshida, 2004).

Another impact of LS on the professional development of Participant 3 relates to "research-based thinking" but the impact is not as strong as in the previous points. The findings revealed that LS triggered the participant's capacity to make research-based educational decisions derived from observation of teaching and learning process (Lewis & Rebecca, 2017; Fernandez & Zilliox, 2011).

The major impact of LS on Participant 4's professional development centered around "critical moments". It has been acknowledged in the literature that critical key moments that both preservice teachers and inservice teachers experienced during their teaching activities lead to the reorganization of teachers' beliefs and bring about positive change in teachers' practices (Labercane, Last, Nichols, & Johnson, 2006; Sirkku, Rorrison, & Zeng, 2011). As Dudley (2015) pointed out LS opens the way for teacher learning through exploratory talk during RL discussions which helps the teachers begin to restructure or change their beliefs about their practice on the basis of their observations of critical moments during RLs.

As in the previous three partners "lesson study experience" had considerable impact on the professional development of Participant 4 since it generated awareness about lifelong learning for professional journey and offered an invaluable professional experience as perceived by him/her, which coheres with the results of the research

presenting that LS is an innovation for lifelong learning of the teachers (Shuaibu, 2019; Bayram & Canaran, 2019).

Another point worth mentioning here is that LS practice exerted effect on the professional development of Participant 4 in other dimensions such as raising awareness about the benefits of “collaboration” among teachers (Fernandez M. L., 2009; Murata & Pothen, 2011; Rock & Wilson, 2005; Fernandez & Robinson, 2006; Chong & Kong, 2012; Fernandez & Yoshida, 2004), raising consciousness about the drawbacks of traditional teaching methods and practices and prompting a shift in beliefs away from traditional teacher oriented methodologies (Knapp, Bomer, & Moore, 2011; Murata & Pothen, 2011) and increasing discernment about multidimensional and unexpected nature of classroom (Wright 2005; William & Kopp, 2006) but the impact was not significant.

With respect to the professional development of Participant 5, the findings disclosed similar results to the previous partners. It was observed that the strongest impact of LS intervention on the professional development of Participant 5 was related to the collaborative and interdependent nature of LS. The participant frequently emphasized the benefits of working in a collaborative environment for an inexperienced pre-service ELT teacher as it provided opportunities for learning through teaching which supports the claim that the core collaborative nature of LS practice is there to deepen their understanding of teaching and learning process (Fernandez M. L., 2009; Murata & Pothen, 2011; Rock & Wilson, 2005; Fernandez & Robinson, 2006; Chong & Kong, 2012; Fernandez & Yoshida, 2004).

Additionally, Participant 5’s perceived impact of LS on his/her professional development concerning “lesson study experience” was considerable as in the previous participants. It was evident that LS was an indispensable experience for him/her because the process broadened the participant’s horizon about teaching and learning in a variety of ways. In this sense, the finding is in line with the existing research which suggest that LS practice is a contemporary tool for ongoing professional development for the teachers (Cohan & Honigsfeld, 2006; Lewis, 2000; Cajkler & Wood, 2016; Cerbin, 2011; Fernandez, 2002; Shuaibu, 2019; Bayram & Canaran, 2019).

It was also seen that LS intervention contributed to a great extent to the professional development of Participant 5 as it led to significant changes in the perception of teaching that have been fed on by personal images of teaching as in Participant 2. The process stimulated to uncover personal theories about teaching and to interpret teaching with a new perspective that is totally student oriented for the participant. Within this

perspective, the finding correlates with the research (Yakar & Turgut, 2017; Hobenshiel Tepylo & Moss, 2011) which observed strong positive changes towards student oriented perspectives in the well established beliefs of both preservice and inservice teachers.

It is important to note here that although the core component of LS procedure is its constant focus on student learning (Hart, Alston, & Murata 2011; Dudley, 2015; Murata & Pothen, 2011; Fernandez C. , 2002; Fernandez & Yoshida, 2004), the impact of LS practice on the professional development of participants concerning “focus on student learning” was not significant except for Participant 5, although each step of the RLs were organized around the critical work of student learning. However, this does not mean that participating in LS intervention had no impact on the other five preservice ELT teachers’ professional development related to “focus on student learning.” The results revealed that LS clearly supported the professional development of all six participants in ways that help them see the learning process from the students’ perspectives but the degree of impact was not the same for all of them. This could be attributed to a lack of exposure to first hand experience with the students during initial teacher education (Roberts 1998).

Findings on the strongest impact on Participant 6 were rather controversial when compared with the other partners since it was related to the challenges and limitations of LS application. The participant strongly emphasized the threatening effect of LS procedure on the students’ affective domains because of the physical existence of multiple RL observers in the classroom. Although this particular finding would suggest a negative impact of LS, it could be claimed that the process contributed to the participant’s professional development as it diverted his/her attention to the affective considerations in the classroom.

However, it is worth to mention that the distribution of categories that LS implementation had impact on Participant 6 was more consistent when compared to the other participants. It was clearly observed that the participant appreciated working in a collaborative environment provided by LS procedure ((Fernandez M. L., 2009; Murata & Pothen, 2011; Rock & Wilson, 2005; Fernandez & Robinson, 2006; Chong & Kong, 2012; Fernandez & Yoshida, 2004).

Similarly, LS practice had a considerable impact on increasing the participant’s awareness on the significance of “critical moments” encountered during teaching as experienced by Participant 4 as well. The process created opportunities for the participant to reflect on such critical moments documented during the observations of RLs and provided a platform to discuss them critically during post lesson discussions. Such a

platform, we believe, triggered inquiry-based teacher learning through which the participant analyzed his/her existing beliefs about teaching and restructured them when necessary. Within this perspective, the process resulted in improvement in teacher practices (Labercane, Last, Nichols, & Johnson, 2006; Sirkku, Rorrison, & Zeng, 2011, Dudley 2015).

Additionally, a certain degree of impact on his/her professional development was perceived by Participant 6 as a result of “lesson study experience”, a consistent finding when compared with the other participants pointing to the convenience of LS for professional development (Cohan & Honigsfeld, 2006; Lewis, 2000; Cajkler & Wood, 2016; Cerbin, 2011; Fernandez, 2002; Shuaibu, 2019; Bayram & Canaran, 2019).

It was also observed that LS practice induced changes in Participant 6’s perceptions about teaching that were based on prior beliefs and ITE inputs. The process exposed the participant to certain circumstances that were contradictory to the existing beliefs and provided opportunities to test their stability (Yakar & Turgut, 2017; Hobenshield Tepylo & Moss, 2011).

As mentioned before, the impact of LS practice on the professional development of Participant 6 was broad in scope. Therefore, the findings further revealed that the participant perceived moderate degree of impact concerning “multidimensional nature of classroom”. It is clearly seen that LS practice created consciousness about unexpected and multivariable situations in the classroom (William and Kopp 2006).

In addition, the participant perceived certain degree of impact concerning “focus on student learning” which is the core component of LS procedure (Hart, Alston, & Murata 2011; Dudley, 2015; Murata & Pothan, 2011; Fernandez C., 2002; Fernandez & Yoshida, 2004), “professional development” (Coenders & Verhoef, 2018; Lewis, 2000; Hurd & Musso, 2005) and “reflective teaching” (Chassels & Melville, 2009) that was enabled by LS intervention.

5.4. The Impact of Lesson Study on Personal Development of Turkish Preservice Teachers of English

Contrary to the relevant literature highlighting the impact of LS practice on the professional development of both beginning and inservice teachers (Cajkler & Wood, 2016; Chassels & Melville, 2009; Coenders & Verhoef, 2018; Cheryl & Francis, 2010; Dudley, , 2015; Fernandez & Yoshida, 2004; Hurd & Musso, 2005;) the present study

offered significant evidence to support the claim that LS procedure had stronger impact on the personal development of participating pre-service ELT teachers when compared with their professional development.

Although personal development is a vague term as it is used interchangeably with professional development in literature, Hargreaves and Fullan (1992) acknowledges that it is not possible to think of teacher development without personal development as it may interfere with the professional development of teachers. In this sense, in the light of existing research on the personal development of teachers (Bell & Gilbert, 1996; Richards and Farrell, 2005; Day 1999; Malm 2009; Tang and Choi, 2004), the findings revealed that LS intervention had impact on the personal development of participating preservice ELT teachers at varying degrees in the following dimensions:

- teacher judgement,
- teacher adaptability,
- teacher creativity,
- self-awareness,
- teacher rapport,
- self confidence.

The network view diagram displaying the co-occurrences among code labels under personal development theme presented rather structured feature when compared with the network view provided for the professional development. Except one co-occurrence between teacher adaptability code and self awareness code which was not significant at all, no relationship was observed among the other code labels subsumed by personal development theme.

5.4.1. Participants Perception of the Impact of Lesson Study on Their Personal Development

The findings related to the personal development of participating preservice ELT teachers suggested that LS process provided unique insights for personal development as it had significant impact on “teacher judgement” and “teacher adaptability” skills for all six partners.

According to Smith (as cited in Bruniges, 2007, p. 244) teacher judgement is not a random and simple teaching decision, but rather it is critical, reflective and attentive process which requires:

- a good understanding of subject knowledge
- a repertoire of teaching strategies
- capacity to adapt existing approaches and create new approaches to best meet student needs
- professional confidence in making teaching and learning decisions

In this sense, making valid and discriminating teaching judgement is a critical skill to make sense of teaching learning process and to assess student achievement (Shavelson 1983).

It has been acknowledged in the literature that there are major differences between experienced and inexperienced teachers in making strong teaching decisions and judgements and those decisions are considered to be based on skills, expertise and experience (Martin, 2003, as cited in Bruginis, 2007). Within this perspective, it could be argued that it is essential to provide situated learning opportunities for the beginning teachers so that they could sharpen their skills of making pedagogical judgements which require deep observation, analysis and reasoning of the critical moments in the classroom.

The present study in this regard yielded invaluable opportunities for the participants to make critical and discriminating pedagogical judgements about learning and teaching process. They observed a variety of non-routine events during RLs, analyzed them critically during post RL discussions and employed deep reasoning during the replanning of the RLs. All participants reported a variety of pedagogical judgements during LS process which deepened their personal pedagogical repertoire and broadened their understanding of the complexity of classroom environment. Additionally, the study has presented findings on the impact of LS practice on the personal development of participating preservice ELT teachers in terms of making sound judgements about teaching, which has not been studied before.

The second major impact of LS on the personal development of participants was related to “teacher adaptability.” The ability to respond effectively to the changing demands of the classroom conditions is a crucial for the teachers and professional

development models should include activities that promote teacher adaptability in the classroom (Corno, 2008; Collie & Martin, 2016). The analysis of the collected data revealed that all participants reported substantial influence of LS procedure on their adaptability skills as they reshaped their plans and teaching constructively on the basis of observation student learning during the implementation of RLs. Remarkable changes were observed in LS group members' perception of adaptability skills in the classroom which might be stimulated by student learning oriented nature of LS process. The participants reportedly increased the frequency of quotations concerning "teacher adaptability." Post lesson discussions also revealed ample evidence of increased awareness about responding flexibly to students needs and changing circumstances in the classroom. Therefore, we can claim that LS plays a pivotal role in changing and shaping participants perceptions about the importance of teacher adaptability skills in the classroom (Schipper, van der Lans, de Vries, Goei, & van Veen, 2020.)

The results also revealed that the process contributed at a moderate level to the creativity of participating preservice ELT teachers. It was observed that the recycling nature of LS encouraged teacher creativity since the participants had to find the reasons for the obstacles to the implementation of the planned RL and offer new ways to solve them. It was clearly seen that the participants were able to produce unique, creative ideas during the planning of the RLs and were able to associate them with the classroom activities which led to instructional improvement as stated by the participants. As Dudley (2015) stated in his extensive work on LS "creativity is the *sine qua non* of Lesson Study" (p. 19). Similarly, Murooka (2007) noted that LS promotes teacher creativity because of its experimental nature.

The results further revealed that LS practice had a moderate level of contribution to the personal development of participants as they reported to become more aware of their strengths and weaknesses as prospective teachers. The data gathered through reflective journals and semi-structured interviews revealed that the participants became more conscious of their own existing beliefs about teaching and learning and more aware of their feelings, emotional ups and downs, biases and their identity as teachers. It has been acknowledged in literature that teacher training programmes heavily focus on providing content knowledge rather than paying attention to self awareness of teachers (Lantieri, 2001 as cited in Park, Riley, & Branch, 2019). Within this perspective, LS intervention established a strong ground for the personal development of participating preservice

teachers as it paved the way for promoting awareness of themselves and their works in class (Leavy & Hourigan, 2016; Martin & Clerc-Georgy, 2015).

Another moderate impact observed was related to the development of positive relationship with the students which was coined as “rapport”. It was found that LS practice stimulated strong emotional relationship with the students. The participants reported that LS process helped them see the planned RL through the eyes of the students and feel empathy with the learners. The process forced them to critically observe specific dimensions of student engagement and learning in the classroom, raised their awareness about their needs (Ylonen & Norwich, 2015; Murata, 2011; Cajkler, Wood, Norton, Pedder, & Xu, 2014) and helped them realize the importance of building strong relationships with the student to increase motivation and achievement (Cerbin, 2011).

LS practice has also contributed to the “self-confidence” of the participants but the perceived impact was very limited for all when compared with the other dimensions already discussed. The participants reported that LS intervention decreased their concerns as to the unexpected nature of classroom environment, encouraged them to be an effective professional in the future and made them feel more brave and confident before getting into the classroom. Although the impact was not strong, the participants compared LS procedure with traditional teacher training courses and emphasized its collaborative nature. On the basis of this framework, the finding is in line with the relevant literature investigating the influence of LS on the teachers’ self confidence and found consistent relationship (Villalon J. J., 2016; Budak, 2012; Corcoran, 2011;).

5.5. The Impact of Lesson Study on Classroom Management Skills

Even though classroom management is a blurred term and is used to refer to discipline related issues in the classroom (Scrivener, 2012), the present study sees classroom management in a broad sense which includes a wide variety of skills and strategies that contribute to student learning in the classroom.

Although classroom management is a critical skill and it is “the central element of every teacher’s daily professional experience” (Wright, 2005, p.1), it has been acknowledged it has become a major challenge for the preservice teachers (Balli, 2011; Martin S. D., 2004; Reupert & Woodcock, 2010). The reason behind the classroom management concerns is often attributed to the inadequacy of teacher training programmes (Siebert, 2005).

Within this perspective, the present study offered a reformist professional development opportunity for the participating preservice ELT teachers that they experience classroom management skills in a variety of settings. It also corroborated existing research (Angelini & Álvarez, 2018; (Schipper, Goei, de Vries, & van Veen, 2018) that support the contributing effect of LS practice on the classroom management skills of teachers. These skills, in this study, can be grouped under three major categories:

1. teacher interventions
2. learner related issues
3. promoting interaction in the classroom

5.5.1. The Impact of Lesson Study on the Classroom Management of Participants in terms of Teacher Interventions

Teacher interventions have been defined as pre-planned or spontaneous teaching strategies or visible intentions that affect student learning directly or indirectly by leading some changes in how learning happens in the classroom (Scrivener, 2012, p.119). It could be very small gesture like a smile to a learner's response or extensive such as lecturing on a specific language structure (Scrivener, 2012). The findings of the present study presented evidence about the impact of LS procedure on 28 key intervention types at varying degrees of influence as perceived by the partners. They are listed as:

- activating schemata
- activity content
- activity management
- assigning group members
- attracting attention
- boredom-sameness
- classroom management
- considering all students
- eliciting response from students
- error correction
- establishing appropriate behavior
- evaluation

- fun element
- giving encouragement, feedback and praise
- giving instructions
- grading and sequencing
- increasing motivation
- inductive teaching
- input & intake
- instructional strategy
- monitoring students
- more challenging tasks
- observation of student learning
- positive classroom atmosphere
- questioning
- scaffolding
- self-correction
- using time effectively

Although the list of interventions may seem extensive, LS had major impact on four key teacher interventions. These are observation of student learning, giving instructions, activity content, and activity management respectively on the basis of the frequency count of the related quotations.

The participants perceived that observation of student learning rather than teacher instruction facilitated through LS had significant impact on their perception of classroom management. It was observed that the participants diverted their attention to student learning during the observation of RLs and reflected on the challenges against learning and thus based their focus on student learning in planning and replanning, teaching, analyses and revisions of the RLs. In this sense, it could be argued that LS process enabled the participants to reformulate their personal theories about teaching and caused a shift in their beliefs from teaching to learning. A number of studies (Cerbin & Kopp, 2006; Fernandez & Robinson, 2006; Marble, 2006; Murata & Pothen, 2011) point to the student learning oriented principle of LS process to explain the strong effect on the pedagogical thinking and practices of the participating both preservice and inservice teachers.

Of particular importance to the present study was the preservice ELT teachers' perceptions on giving instructions which was closely related with student learning that was facilitated by LS intervention. While critically reflecting on the obstacles in front of student learning, the observation records and the reflective written reports of the participants revealed that the process helped the participants to realize the importance of giving simple and clear instructions to enhance student learning and achievement. Also important for the professional development of participating preservice ELT teachers is the motivation to read relevant literature about giving instructions. The participants felt the need for reading scientific studies in order to find out answers to the question of how to give instructions in the classroom. Therefore, it seems that LS practice paved the way for identifying specific deficiencies in the participating preservice ELT teachers' pedagogical knowledge such as giving instructions and provided them with opportunities to remedy them.

Additionally, LS experience was observed to bring about instructional improvement by focusing the participants' attention to the content of the planned activities and their management during the implementation of the RLs in order to make them consistent with student learning (Lewis, Perry, Friedkin, & Roth, 2012; Marble, 2006; Lee J. F., 2008). The participants were able to observe the ways that the students learn a specific concept and developed creative lesson content for the RLs to cater for student differences through LS. The reapplication of the same RL and its repeated cycles consisted of lesson planning meetings and post lesson discussions forced the teachers to come up with unique ideas for the lesson plans to use them as RL content. Also, the implementations of the RLs provided ample opportunities for the participants to observe how the lesson plan and including activities were delivered and managed in order to respond diversified needs of the students in the classroom. Post lesson discussions after each RL paved the way for discussions for the delivery and management of tasks and activities and supported to develop instructional strategies for the participating preservice ELT teachers to respond to learning needs of the students. In other words, LS showed participants both what to teach and how to teach. As Lewis and Hurd (2011) suggest, LS is not about discovering a way to plan and implement a perfect lesson, but it is about building knowledge of many teaching strategies that are informed by the examination of evidence leading to professional inquiry. This study, along with others (Cerbin & Kopp, 2006; Cajkler, Wood, Norton, Pedder, & Xu, 2014; Pothén & Murata, 2008), yields evidence into how LS practice contributes to instructional success in planning and choosing relevant and

appropriate content for the students and developing instructional strategies to deliver it successfully.

5.5.2. The Impact of Lesson Study on the Classroom Management of Participants in terms of Learner Related Issues

LS implementation has also served to make the participants more aware of the student related issues such as learners' cognitive, affective and personal dimensions that exert influence on student learning in the classroom. The process helped the participants realize the importance of learner related variables in teaching effectively. As Lewis (2000, p. 31) proposed that at the core of LS application lies focus on the whole child rather than simply lesson format itself.

With respect to learner related issues, the findings of the present study revealed impact of LS on 16 dimensions at varying degrees of effect as perceived by the participants. These are;

- affective considerations
- allocation of attention
- background knowledge
- diversity
- language production
- misbehavior
- motivation
- native language use
- off task behaviour
- retention
- student engagement
- student involvement
- students language proficiency level
- students needs and interests
- uninterested students

The results, however, did not present a consistent distribution among partners which could be attributed to personal theories of participating preservice teachers as

suggested by Sendan and Roberts (1998). Therefore, the major dimensions were allocation of attention, language production, affective considerations and misbehaviour.

The findings revealed that LS practice diverted the participants' focus to the learners' allocation of attention to the tasks and activities used during RLs. Except for participant 5, the observation records of the participants presented constant reference to the learners allocation of attention. As Hurd and Licciardo-Musso (2005) suggest, the participants in the present study developed the habit of analyzing the lesson from the perspectives of students by reflecting on their thinking and attention.

LS practice has also influenced how the participants assessed language production of the students. Except for participant 1 and 5, other participants' perception about learners outcome was quite high when looked at the frequency count of the related quotations. During the course of the replanning of the RLs, it was observed that the main criterion for reshaping the tasks and activities was how to increase language production of the students. Within this perspective, it could be argued that LS has the potential to sustain improvement in student achievement and bring about meaning oriented teacher learning as stated by Vricki, Warwick, Vermunt, Mercer, and Van Halem (2017) and Dudley, Haiyan, Vermunt, and Lang, (2019).

Taking part in the LS application also helped the participants recognize the importance of affective considerations in student achievement as a key element in succesful management of the classroom. Systematic investigation of student learning during RLs seemed to sharpen the participants' focus on the individual differences, feelings and emotions as it was strongly reflected in participant 2, 4, 5, and 6' s quotations. LS process provided opportunities for the participants to understand the significance of building strong emotional bond with the students that has a pivotal role in learners' progress and achievement and that such affective considerations would even disrupt a perfect lesson. It seems that preservice teachers rely on their own schooling experience which is known as "apprenticeship of observation" (Lortie, 1975, as cited in Roberts, 1998) to make sense of the the experience created by LS process. Their main concern when they begin to teaching profession is building affective and interpersonal relationship with students as reported by Fajet, Bello, Leftwich, Mesler, & Shaver (2005). Within this perspective, it could be argued that student learning oriented nature of LS practice and the participating preservice ELT teachers' dependence on their personal theories promoted awareness on affective considerations in the classroom which could be

considered another benefit of LS intervention that has not been reported in the literature yet.

In terms of student misbehaviour half of the participants' (Participant 1, 2, 4) data sources referred to the student misbehaviour as an obstacle in implementing planned RLs. Those participants reported that critically observing students' learning during the course of the RL instruction helped them to see the disruptions in the classroom easily and to look for ways to minimize them. While the relevant literature has not presented any research investigating the effect of LS on preservice teachers' classroom management concerns regarding misbehaviour in the classroom, this finding could be considered important as it opened a window to the implicit beliefs of preservice teachers and uncovered how they made sense of LS professional development intervention.

The results revealed further impact in other dimensions such as awareness of student engagement (Dudley, 2015; Cajkler, Wood, Norton, & Pedder, 2014), learning to see children with all aspects (Lewis, 2000), and the importance of student motivation (Dudley, 2013) but the impact was moderate or low when compared to the other dimensions.

To sum up, LS practice provides an ideal ground for enhancing classroom management skills of the preservice teachers who "lack practical classroom management routines to keep pupils on task" (Robert, 1998, p. 68) and are in need of direct experiences of teaching to uncover and personalize tacit beliefs of teaching.

5.5.3. The Impact of Lesson Study on the Classroom Management of Participants in terms of Promoting Interaction in the Classroom

Participants' reflective journals, RL discussions and observation records made it clear that through LS experience they developed greater awareness about interaction among students. It was observed that LS implementation contributed to participants' professional noticing practice of interaction in the classroom and thus enhanced their knowledge about classroom management. It was also found that LS stimulated them to review and reframe their instructional strategies to promote interaction in the classroom (Huang, Su, & Xu, 2014; Verhoef, Coenders, Pieters, van Smaalen, & Tall, 2014).

The findings revealed six major categories at varying degrees of impact. They are:

- active participation of students

- cooperation with classmates
- disengagement
- interaction among students
- peer support
- working in groups.

The frequency distribution of the codes under interaction theme showed that all participants made strong or moderate level of references to the active participation of students. They constantly elaborated on alternative ways for increasing students participation during lesson planning meetings and post lesson discussions which could be attributed to student learning oriented nature of LS. In this regard, the finding is coherent with the studies on how LS shapes or changes beliefs and instructional practices of prospective teachers to promote more student participation in their lesson (Fernandez M. L., 2009; Fernandez M. L., 2012; Leavy & Hourigan, 2016). Closely related with “active participation of students”, especially Participant 1’s findings presented strong references to “disengagement” code label although the other participants perceived its impact relatively at a moderate or low level which implies that LS intervention also provide reasons for the participants to direct their attention to student engagement as suggested by Lewis (Lewis, 2002 as cited in Takahashi & Yoshida, 2004)

The findings also revealed that LS application caused a significant shift in participants’ perceptions about group work and pair work activities. Although they reported the impossibility of applying group work and pair work activities at the beginning of the process because of the contextual obstacles such as crowded classrooms and physical layout and classroom management concerns such as losing control and disruptive behaviours, the process enabled them to “see the gaps between what they had assumed and what actually really happened” (Dudley, 2011, p. 4). The student learning oriented nature of LS intervention pushed the participants to test the applicability of group work and pair work activities for the purpose of increasing students’ motivation, participation and engagement, observe them during RLs and thus promoted to reframe their perspectives about group and pair work activities. Although all participants reported strong references to students working in groups and pairs, one participant explicitly expressed that his/her perspective about group and pair work activities was totally negative. S/he further stated that the biggest impact of LS practice on his/her professional

development was its contribution to building a knowledge base on how to organize and implement group work activities effectively. Thus, it seems that LS has the potential to influence preservice teachers' personal beliefs and reshape them through reflection on action (Pothen & Murata, 2008; Murata & Pothen, 2011).

Additionally, LS reinforced participants' classroom management skills by introducing new perspectives about "interaction among students." Except Participant 2 and 6, other participants referred to students' interaction in the classroom at a moderate level. Within this perspective the finding aligns with the existing research suggesting LS as a tool for increasing awareness about the importance of student interaction to improve student learning and teacher learning (Verhoef, Coenders, Pieters, van Smaalen, & Tall, 2014; Fernandez M. L., 2012).

5.6. The Overall Impact of Lesson Study Process on Participants' Personal and Professional Development

It is important to note that LS procedure explicitly contributed to the development of participating preservice ELT teachers in various aspects as perceived by the participants at varying degrees. The strengths of the LS as investigated in the present study are: individual personal development, improvement in teacher interventions and instructional strategies in the classroom, increasing awareness about learners, strengthened knowledge about the link between lesson planning and instruction, sustaining professional development, focused attention to the interaction among students, and sharpening perspectives about the effect of teacher actions and classroom environment to student learning and achievement.

As discussed before, the strongest impact for all participants has been observed consistently in two dimensions: personal development and teacher interventions. LS intervention paved the way for developing personal strengths that informed teaching practices and personal identity as teachers and helped to make sense of teaching. The preservice ELT teachers benefited to a great extent from various first-hand teaching experiences that was enabled by LS RLs. They developed specific strengths in certain dimensions such as teacher judgement, teacher adaptability, teacher creativity, self awareness, teacher rapport and self confidence which could be considered as critical personal gains for a prospective ELT teacher. It is important to note here that previous

research on LS has not reported the impact on the personal development of participants. Therefore, this study could be considered as an important contribution to the literature.

Another strongly recorded benefit of LS implementation in the present study was related to the improvements in participating preservice ELT teachers' interventions and instructional strategies. The process stimulated the development of a variety of key classroom interventions to support student learning (Cajkler, et al., 2014 (Sims & Walsh, 2009) and enhanced participants' awareness of the significance of such interventions to accelerate student progress.

With respect to the limited impact of LS intervention, the weak references to classroom context and teacher related issues revealed that LS did not cause a major impact on the participants in terms of increasing their awareness about how classroom context, for example physical layout, over crowded classrooms etc. and teachers' everyday, routinized classroom actions or reactions to students such as addressing students, native language use, instructional style etc. may have a role in teaching and learning process. Although the observed impact was quite low, the participants had the opportunity to witness students learning in some crowded classrooms where the layout was organized traditionally and reflect on the process. Additionally, LS promoted evidence based inquiry (Cerbin & Kopp, 2006) for the participating preservice ELT teachers as they questioned routinized teachers actions.

CHAPTER VI

CONCLUSION

6.1. Introduction

This chapter introduces the conclusions drawn from the study and summarizes the findings in line with each research question. It also offers some pedagogical implications for preservice teacher education. The remainder of the chapter presents the limitations of the study and recommendations for further studies.

6.2. Conclusions

This study aims to investigate the impact of LS application on the personal and professional development of participating preservice ELT teachers. The main purpose is to see if LS makes a difference in the professional growth of the participants and leads to positive changes in their implicit beliefs and personal theories about teaching and instructional practices that is informed by student learning oriented nature of LS application.

In line with this objective, the study documented the collaborative and inquiry based LS experience of six preservice ELT teachers. Originally, the study consisted of two stages; theoretical phase and application phase respectively. The aim of the theoretical phase was to inform the participants about the philosophy and application of LS. In this phase, at the beginning of the process, the participants were trained about LS for about 5 weeks through weekly gatherings in which the researcher delivered presentations and worked with the participants. The application phase consisted of one pilot study and four RLs which were applied in different settings for the purpose of providing opportunities for the participants to observe and and reflect on variety of students from different socio-economic background and readiness level. Because of the ongoing and cyclical nature of LS application the participants gathered repeatedly to plan the RLs, teach, observe and gather evidence, analyze the evidence and revise the lesson for the next applications. Totally, the whole process lasted for 7 months. During this process, the participants had the opportunity to work in a collaborative environment with the peers, observe student learning critically and reflect on the evidence and discuss fruitfully which contributed to personal and professional development of participants significantly. As the nature of the

study required, a large volume of qualitative data was collected by means of variety of data collection tools. The data collection tools employed in the present study are:

- Unstructured Interviews
- Semi-Structured Interviews
- Classroom Observation Sheets
- Reflective Journals
- Focus Group Interviews

The collected data was subjected to qualitative data analysis with Atlas.ti. After descriptive and conceptual analysis of the data enabled by the software, the codes were grounded under the themes in order to answer the following research questions.

Research Question 1: Does participation in Lesson Study have an impact on Turkish preservice teachers of English?

The first research question aimed to reveal the dimensions of perceived impact of LS intervention on the personal and professional development of participating preservice ELT teachers. The frequency analysis of the data with Atlas.ti revealed that LS practice impacted preservice teachers' perceptions at varying degrees under the following aspects:

- Personal Development
- Teacher Interventions
- Learner Related Issues
- The Lesson
- Professional Development
- Interaction in the Classroom
- Teacher Related Issues
- The Classroom.

Research Question 2: Does Lesson Study Professional Development Model have an impact on professional development of Turkish preservice teachers of English?

The second research question aims to bring out if LS intervention had an impact on the professional development of preservice ELT teachers. The results revealed a moderate level of impact as perceived by the participants. The results further revealed 13 aspects of professional development promoted by LS which impacted the participants' perception at varying degrees. Those aspects were listed below on the basis of their impact level.

- lesson study experience
- collaboration
- perception change
- multi dimensional class
- critical moments
- focus on student learning
- traditional teaching
- professional development
- research based thinking
- traditional teaching VS lesson study
- theory-practice
- threatening effect of LS
- reflective teaching

Research Question 2a: If Lesson Study Professional Development Model have an impact on professional development of Turkish preservice teachers of English, how does each participant perceive the contribution of LS process to their professional development?

This question aims to reveal each participant's perception concerning LS implementation to their professional development. Based on the data obtained through Atlas.Ti frequency analysis, the results indicated that Participant 1's major individual perception about Lesson practice to his/her professional development was perception change, collaboration and LS experience. For the second participant, the major impact was observed in multidimensional class, perception change, lesson study experience subdimensions respectively. To the third participant's perception, the strongest impact was observed in aspects related to lesson study experience and collaboration. Participant

4's results revealed increasing awareness about multidimensional class and lesson study experience. The major impact on Participant 5 was observed in collaboration and lesson study experience sub-dimensions. Participant 6's results presented consistent distribution but the strongest impact was found in a negative aspect which was labelled as threatening effect of lesson study to student learning. In brief, the major impact of LS on participants' professional development was observed in lesson study experience, collaboration, perception change, and multidimensional class aspects.

Research Question 3: Does Lesson Study Professional Development Model have an impact on participants' personal development?

Contrary to existing literature, the study presented an exceptional finding which clearly showed that LS impacted personal development of participants most which could be considered as a significant contribution to relevant literature.

The results revealed that LS practice had the strongest impact on the personal development of participants in the following dimensions:

- teacher judgement,
- teacher adaptability,
- teacher creativity,
- self-awareness,
- teacher rapport,
- self confidence.

Research Question 3a: If Lesson Study Professional Development Model have an impact on personal development of Turkish preservice teachers of English, how does each participant perceive the contribution of Lesson Study process to their personal development?

The aim of this research question was documenting the differences among participants' perceptions of the contribution of LS to their personal development. The findings clearly portrayed a consistent distribution among partners in two dimensions which are "teacher judgement" and "teacher adaptability." All partners reported strong

impact on their personal development as LS practice contributed to their judgement and adaptability skills. However, perception differences were observed in other dimensions.

Research Question 4a: Does Lesson Study Process have an impact on the participants' classroom management skills in terms of teacher interventions?

As revealed in the first research question, the second major impact of LS process on the participants was observed in teacher interventions theme. In this respect, this research question aimed to examine participants' sharpened perspectives and increased awareness about the aspects of teacher interventions facilitated by LS. The results revealed that LS process provided opportunities for the preservice ELT teachers to develop a variety of key teacher interventions to manage the classroom effectively. Those key teacher interventions were listed as activating schemata, activity content, activity management, assigning group members, attracting attention, boredom-sameness, classroom management, considering all students, eliciting response from students, error correction, establishing appropriate behaviour, evaluation, fun element giving encouragement, feedback and praise, giving instructions, grading and sequencing, increasing motivation, inductive teaching, input & intake, instructional strategy, monitoring students, more challenging tasks, observation of student learning, positive classroom atmosphere, questioning, scaffolding, self-correction, using time effectively. Although individual differences were observed among participants, the findings revealed that the process impacted the participants most in terms observation of student learning and giving instructions.

Research Question 4b: Does Lesson Study Process have an impact on the participants' classroom management skills in terms of learner related issues?

It has been acknowledged in literature that the core feature of LS application is learner-centeredness (Dudley, 2015; Fernandez , 2002; Hart, Alston, & Murata, 2011; Lewis 2000) as discussed before. Similarly, in this study, another strong impact of LS process was observed in learner related issues. The findings affirmed the impact of LS on 16 dimensions at varying degrees of effect as perceived by the participants. They are affective considerations, allocation of attention, background knowledge, diversity, language production, misbehavior, motivation, native language use, off task behaviour,

retention, student engagement, student involvement, students language proficiency level, students needs and interests, uninterested students. However, as reported before, a consistent distribution among partners was not observed. Yet, when the results investigated holistically, it was seen that the participants reported increased awareness about allocation of attention, language production, affective considerations and misbehaviour dimensions.

Research Question 4c: Does Lesson Study Process have an impact on the participants' classroom management skills in terms of promoting interaction in the classroom?

This research question aimed to question if LS process contributed to classroom management skills of participants. The results revealed that LS maintained a constant focus on promoting interaction in the classroom because of its student learning oriented nature. The impact was observed in five sub-dimensions which were labelled as active participation of students, cooperation with classmates, disengagement, interaction among students, peer support and working in groups at varying degrees of strength depending on the the participants' perception. Although participants differed in their perceptions, the strongest impact was noted on "active participation of students" and "working in groups" aspects.

Research Question 5: In general, how do participants evaluate overall impact of Lesson Study process to their development?

This research question intended to reveal the impact of LS practice on each participants' development as perceived by them on the basis of primary aspects. In this regard, the question aimed to summarize the overall impact on each participant. The codes- primary documents analysis of the data enabled by Atlas.ti provided consistent results with the previous research questions suggesting that LS process incorporated into the present study impacted "personal development" and "teacher interventions" of the participants most. The results further showed that the least impact was observed in "the classroom" and "the teacher" related issues.

6.3. Implications of the Study

LS is a universally approved contemporary model for professional development of teachers and has been widely executed in many parts of the world documenting significant improvements in teachers' practices. Although the existing literature provides wide array of research investigating the influence of LS on in-service teachers, LS applications with pre-service teachers are quite few in number. In this respect, the present study aimed to contribute to literature by incorporating LS intervention into preservice teacher education and documenting the impact on the participants' development. Thus, the implications of the present study for the initial teacher education are significant in many aspects.

First and foremost, LS offers a number of important advantages for the professional development of prospective teachers who have been reported to have certain deficits such as ungrounded perception of classroom events, incapability in planning lesson, lack of typificatory knowledge in their knowledge, dependence on textbook, lack of classroom management skills, focus on student control rather than student learning, lack of practical experience (Roberts, 1998, pp. 67-68). The findings of the present study revealed that LS seemed to remedy these deficits and enabled the participating pre-service ELT teachers to adopt a more critically reflective stance to multidimensional classroom environment, to enhance their skills in crafting a lesson plan because of the iterative process in planning a lesson imposed by LS procedure, to sharpen their awareness of the obstacles to student learning, to change their implicit beliefs as to the essentiality of textbook, to develop a number of classroom management strategies and divert their attention from student control to student learning.

Secondly, LS encouraged collaborative, team-based teaching. The participants greatly benefited from the dialogue and discussions where they exposed their personal constructs about teaching, questioned and restructured them. In other words, they were able to re-evaluate their dependence on "apprenticeship of observation" in teaching activities, (Murata & Pothen, 2011) and privatist occupational culture imposed by initial teacher education programmes (Roberts, 1998). Roberts (1998) emphasizes the importance of opportunities for the prospective teachers that they reflect on and explore their implicit, personal images of teaching by means of collaborative teacher learning. In this respect, LS intervention employed in the present study provided the ideal ground for the participants so that they could collaboratively reflected on their personal beliefs and images of teaching. Also, Lortie (1975, as cited in Roberts, 1998) stated that early *sink or*

swim experiences of teachers generally reinforce them to adopt a privatist attitude in their professional life which hinders teacher development. He further suggested that collaboration, collegiality, and team based teaching provided by initial teacher education would contribute to teacher learning and professional development in the following years. In line with this, the participants in the present study strongly emphasized the benefits of collaborative working environment enabled by LS process. Therefore, it could be suggested that the incorporation of LS to initial teacher training would help to promote cooperative occupational culture and collaborative development as observed in the present study.

Also, LS contributed significantly to personal development of the participating preservice ELT teachers in many aspects. Okan (2002) in her empirical research on language teacher education programmes documented the dramatic role transition of preservice teachers from student to teacher which caused serious emotional breakdowns, tensions and lack of confidence. Additionally, the literature documented that preservice teachers, before they begin to teach, pass through stages from survival and coping to focus on teaching (Fuller, 1969). Within this perspective, it could be stated that LS has the potential to respond to student teachers' main concerns with its focus on crucial personal skills such as teacher judgement, adaptability, and creativity and thus encouraging self confidence and self awareness.

It has been acknowledged in the literature that traditional teacher education programmes are not powerful interventions in terms of preparing prospective teachers for the realities of classroom (Crandall, 2000; Zeichner & Liston, 1987; Roberts, 1998). The conventional programmes provide large amounts of technical knowledge but less practical experience in which prospective teachers can put what they learn into practice in actual classroom environments (Zeichner & Liston, 1987).

Recently, we see attempts to reform teacher education programmes with a new focus on "what it means to be a teacher" in order to promote anticipatory reflection which helps prospective teachers to respond creatively to the multidimensional and unexpected classroom nature and thus develop self confidence (Farrell, 2006).

Like wise, the practicum experiences of the prospective teachers in Turkey have been reported not to have the desired impact since they observe similar issues, repeat similar activities and couldn't link theory and practice due to limited practical opportunities and constructive discussions among teacher candidates and mentors (Boz & Boz, 2006). Similarly, Okan and Yıldırım, (2004) reported a mismatch between initial intentions of

teacher training programme and what actually happens in early field experiences of prospective teachers. They concluded that the programme was not conducive to developing inquiry based approach to teaching and learning from observational experience. In this sense, the findings of the present study revealed that LS is a valuable tool responsive to the limitations of initial teacher training programmes and early field experience. Incorporation of LS intervention into preservice teacher education would engage prospective teachers in the communities of inquiry through variety of meaningful, collaborative learning experiences so that they could adopt investigative lens and critical perspectives towards complexities of teaching. This would also help prospective teachers to establish link between theory and practice because of the grounded structure of LS application which requires repeating cycles of lesson planning, RL application and reflection (Fernandez M. L., 2012).

6.4. Limitations and Suggestions for Future Research

The first limitation of the present study arises from the nature of LS implementation. The RLs were conducted with the participation of six preservice ELT teachers, one researcher and one outside observer in research schools. This inevitably caused a certain degree of distraction among students. In order to mitigate the effect of this constraint, the classroom teachers informed the students before the application and RL teacher in each application explained the purpose of application to students in order to lower their defenses.

The second limitation of the study stems from the nature of qualitative research design. The present research was conducted with six prospective teachers studying ELT at a state university in Turkey. In this respect, the findings can not be extended or generalized to wider population since they are context bound and related to the participants' settings. In this respect, further studies in different contexts are needed to validate the research findings of the present study.

Additionally, the present study reveals the findings concerning the participants' perception about the impact of LS intervention on their development as teachers. Follow up studies might focus on the participants' actual teaching practices in order to validate if LS has caused improvement in teaching rather than changes in the perception.

It is also important to note here is that LS practice is time consuming and it requires dedicated effort to organise and apply. The practitioners would face certain challenges in local institutional settings.



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APPENDICES

APPENDIX A. ETHICS COMMITTEE APPROVAL



T.C.
AKSARAY ÜNİVERSİTESİ
İnsan Araştırmaları Etik Kurulu

Sayı : 2016/59

26/12/2016

Konu : Başvurunuz hk.

Sayın : Ertan ALTINSOY

14.12.2016 tarih ve 2016/58 protokol sayılı "*Ders Araştırması : İngiliz Dili Eğitimi Aday Öğretmenleri için Profesyonel Gelişim Modeli*" başlıklı araştırma ile ilgili başvurunuz Üniversitemiz İnsan Araştırmaları Etik Kurulu'nun 23.12.2016 tarihli toplantısında görüşülmüş olup kurul karar örneği ekte sunulmuştur.

Bilgilerinizi rica ederim.


Prof. Dr. M. Bahaüddin VAROL
Aksaray Üniversitesi
İnsan Araştırmaları Etik Kurul Bşk.

Eki: Kurul karar örneği.

T.C.
AKSARAY ÜNİVERSİTESİ
İnsan Araştırmaları Etik Kurulu
Karar Örneği

Tarih	Toplantı Sayısı	Karar No
23.12.2016	6	2016/45-69

Üniversitemiz İnsan Araştırmaları Etik Kurulu 23.12.2016 tarihinde saat.14.00'de Kasım-Aralık 2016 döneminde yapılan başvuruları görüşmek üzere toplanarak aşağıdaki kararları almıştır:

Karar 2016/59: Yürütücülüğünü Ertan ALTINSOY'un yaptığı "**Ders Araştırması : İngiliz Dili Eğitimi Aday Öğretmenleri için Profesyonel Gelişim Modeli**" başlıklı araştırma ile ilgili 2016/58 protokol numaralı başvurusu Kurulumuzca incelenmiş, Üniversitemizin İnsan Araştırmaları Etik Kurul Yönergesinde belirtilen etik ilkelere UYGUN olduğuna toplantıya katılan üyelerin oy birliği ile karar verilmiştir.

ASLI GİBİDİR


Prof. Dr. M. Bahaüddin VAROL
Aksaray Üniversitesi İnsan Araştırmaları
Etik Kurulu Başkanı

APPENDIX B. RESEARCH PERMISSION (DIRECTORATE OF NATIONAL EDUCATION)



T.C.
AKSARAY VALİLİĞİ
İl Millî Eğitim Müdürlüğü

Sayı : 85705372-44-E.1859220
Konu : Çalışma İzni

14.02.2017

AKSARAY ÜNİVERSİTESİ REKTÖRLÜĞÜNE (Öğrenci İşleri Daire Başkanlığı)

İlgi: (a) 01.02.2017 tarihli ve 45333631/200-E.136257 sayılı yazınız.

(b) Valilik Makamının 13.02.2017 tarihli ve 85705372 /44-E.1826468 sayılı onayı.

İlgi (a) yazınızda belirtilen, Üniversiteniz Yabancı Diller Yüksekokulu okutmanlarından Ertan ALTINSOY'un "**Ders Araştırması:İngiliz Dili Eğitimi Aday Öğretmenleri İçin Profesyonel Gelişim Modeli**" başlıklı çalışmasını, Aksaray İl Merkezindeki İlk ve Ortaokullarda uygulama isteğine ilişkin Valilik Makamının ilgi (b) Onayı ekte gönderilmektedir.

Bilgilerinizi arz ederim.

Hayrullah ALABOYUN
İl Millî Eğitim Müdür V.

EK : İlgi (b) Onay (1 Adet)



T.C.
AKSARAY VALİLİĞİ
İl Milli Eğitim Müdürlüğü

Sayı : 85705372-44-E.1826468
Konu : Anket İzni

13/02/2017

VALİLİK MAKAMINA

İlgi: a) Milli Eğitim Bakanlığı Yenilik ve Eğitim Teknolojileri Genel Müdürlüğünün 07/03/2012 tarih ve 3616 sayılı 2012/13 Nolu Genelgesi

b) Aksaray Üniversitesi Öğrenci İşleri Dairesi Başkanlığının 01.02.2017 tarihli ve 45333631/200-E.-1362577 sayılı yazısı.

İlgi (b) de kayıtlı yazıda belirtildiği üzere ; Aksaray Üniversitesi Yabancı Diller Yüksekokulu okutmanlarından Ertan ALTINSOY; yürütmekte olduğu "**Ders Araştırması: İngiliz Dili Eğitimi Aday Öğretmenleri İçin Profesyonel Gelişim Modeli**" başlıklı çalışmasını video kayıt sistemiyle, Aksaray merkez ve merkeze bağlı ilkokullarda ve ortaokullarda yapmak istemektedir.

İlgi (a) genelgede "Araştırma önerisi ve veri toplama araçları Anayasa, Milli Eğitim Temel Kanunu ve Türk Milli Eğitiminin genel amaçlarına uygun olacak; millî ve manevî değerlere aykırı, kişilik haklarını ihlal eden; cinsiyet, din, dil, ırk gibi farklılıkları istismar eden, İnsan Hakları Evrensel Beyannamesi ve uluslar arası bağlayıcılığı olan diğer belgelerce suç kabul edilen hususları içeren, kişisel ve ailevi mahremiyeti ifşa eden soru, ifade, resim ve simgeler yer almayacaktır. Veri toplama araçlarında kişi, kurum ve kuruluşların reklamını veya tanıtımını yapan ifade ve öğeler bulunmayacaktır." denilmektedir.

Bu nedenle; Aksaray Üniversitesi Yabancı Diller Yüksekokulu okutmanlarından Ertan ALTINSOY; yürütmekte olduğu "**Ders Araştırması: İngiliz Dili Eğitimi Aday Öğretmenleri İçin Profesyonel Gelişim Modeli**" başlıklı çalışmasını video kayıt sistemiyle Aksaray merkez ve merkeze bağlı ilkokullarda ve ortaokullarda yapma isteği; video kayıt sistemi ve benzeri materyaller kullanılmamak şartıyla; ilgi (a) Genelge esasları dahilinde, eğitim-öğretim faaliyetlerini aksatmamak, sorumluluk okul müdürlerinde olmak ve sonuç raporlarından dijital ve basılı ortamda birer örneğini İl Milli Eğitim Müdürlüğümüze vermek koşuluyla Müdürlüğümüzce uygun görülmektedir.

Makamlarınızca da uygun görüldüğü takdirde, olurlarınıza arz ederim.

Hacı Ömer KARTAL
İl Milli Eğitim Müdürü

OLUR
13/02/2017
Kubilay ANT
Vali a.
Vali Yardımcısı

APPENDIX C. LESSON STUDY PROTOCOL

Lesson Study (LS) Group Protocol

This protocol exists to help create common expectations amongst the LS group members. In doing this it will help the group to form a good working relationship that helps members to share ideas, concerns, challenges and ‘wonderings’ without fear of criticism. All this will aid the sharing and discovery of new practice knowledge.

At all stages in this Lesson Study we will act according to the following:

- All members of the LS group are equal as learners whatever their age, experience, expertise or seniority in school (or beyond)
- All contributions are treated with unconditional positive regard. This does not mean they will not be subject to analysis, doubt or challenge, it means no one will be made to feel foolish for venturing a suggestion. It is often suggestions that make you feel foolish or vulnerable that are of the greatest value and generate the most learning
- We will support whoever teaches the research lesson(s) and make faithful observations, recording as much as possible what pupils say as well as do
- We will use common tools for Lesson Study – planners, pupil interview prompts and approaches to sharing outcomes with each other
- We will use pupils’ work and interview comments to inform the post lesson discussion alongside our observations
- We will use the post lesson discussion flow starting by discussing what each case pupil did compared with what we predicted and let the discussion flow from there
- We will listen to each other and to ourselves when we speak and build on the discussion, making suggestions, raising hypotheses, elaborating, qualifying and at all times being accountable to our lesson aims, our case pupils and our observation and other research lesson data.
- We will share what we learn – our new practice knowledge - with our colleagues as accurately and vividly as we can and in such a way that they can benefit from and try it out themselves
- We will share the aims and outcomes of our Lesson Study with our pupils appropriately, depending on their ages and stages of development. Their views, ideas and perspectives will be treated with equal positive regard

(Dudley, 2011, p. 7)

APPENDIX D. GROUP GOAL SELECTION SAMPLE

All lesson study tools developed by the Lesson Study Research Group are regularly revised and updated. To download the latest versions of these documents, please go to: www.tc.columbia.edu/lessonstudy/tools.html.

Lesson Study: Group Goal Selection

1. Think about the aspirations that you have for your students. What kind of students do you want to foster and help develop at your school? What qualities do you want your students to have by the time they leave your school?

I want my students feel motivated and interested in learning English language. I want them to be aware of the advantages of being able to communicate in another language (English). So, I need to grab their attention not only to teach English in school, but motivate them also to learn outside the school.

2. What gaps do you see between these aspirations and how children are actually developing at your school?

Students have no clear idea of the use of a foreign language. English as a foreign language is just a language to translate into Turkish. A big lack of communication in English is existing in the classrooms.

3. Discuss these gaps with your group. As a group, select a “gap” that you would like to focus on with your lesson study. What “gap” have you selected?

The gap is motivation and interest.

4. Write a group goal that states the quality you would like to develop in your students, in order to address the gap that you have chosen.

To improve students’ interests in communication with the medium of English language and increase their motivation in the classroom through variety of activities responding to their needs

Participant 5

Barbrina Ertle, Sonal Chokshi, & Clea Fernandez.
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All lesson study tools developed by the Lesson Study Research Group are regularly revised and updated. To download the latest versions of these documents, please go to: www.tc.columbia.edu/lessonstudy/tools.html.

Example of a “gap” that could be selected, and its development into a goal:

1. *I want my students to be curious about mathematics. They should not see mathematics as something that they are forced to learn in school, but otherwise have no interest in. I want them to realize that mathematics is inherently interesting and I want them to be motivated to learn mathematics not only in school, but also from their peers and their environment.*
2. *I have noticed that my students don't seem to care about mathematics. They have no apparent curiosity about numbers or what they could mean. They don't ask questions, or really want to discover the answers to questions that I pose to them.*
3. *The lack of student curiosity about mathematics.*
4. *To develop students who are curious about mathematics, and who will engage in mathematics to satisfy their curiosities.*

APPENDIX E. LESSON STUDY PROTOCOL 2

All lesson study tools developed by the Lesson Study Research Group are regularly revised and updated. To download latest versions of these documents, please go to: www.tc.columbia.edu/lessonstudy/tools.html.

Lesson Study Protocol

The following protocol guidelines are meant to facilitate the lesson observation and debriefing process. Although these guidelines are meant to make these activities more constructive and efficiently organized, they are not meant to minimize the critical or reflective nature of the feedback session¹.

❖ **Observing the lesson:**

1. The observers, including the teachers who helped plan the lesson, should NOT interfere with the natural process of the lesson (e.g., by helping students with a problem). However, observers are permitted to circulate around the classroom during seatwork, as well as communicate with students for clarifying purposes only (e.g., if they could not clearly hear what a student was saying). Otherwise, observers should stand to the back and sides of the classroom.
2. It is a good idea for observers to note their observations on the lesson plan itself. This procedure will not only help observers focus on the goals and activities of the lesson, but also help them organize their feedback for later.
3. It is also a good idea for observers to distribute observations among themselves. For example, a few clusters of observers could watch assigned groups of students, another observer (usually one of the planning teachers) could keep time, etc. The teacher should also prepare for this observation by distributing seating charts among the observers (if seating charts are not available, s/he could place nametags on each student), so that observers can conveniently refer to the children by name when discussing their observations and sharing their feedback.

❖ **Preparing for the feedback session:**

1. Instead of discussing the lesson immediately after it has been taught, the entire group should take a break to relax and gather their thoughts.
2. The group who planned the lesson should assign roles among themselves in order to help keep the discussion focused and on track. These roles include: moderator/ facilitator (usually a member of the planning group besides the teacher who taught the lesson), timekeeper, and recorder(s).
3. The teachers who planned the lesson should sit together at the front of the room in panel formation during the feedback session. The purpose of this setup is to emphasize the idea that the entire group (not just the teacher who taught the lesson) is receiving the feedback.

¹ Some of the suggestions described in this document were modeled by Japanese teachers at the Greenwich Japanese School, CT, and are also based on our work with U.S. teachers at Public School #2 in Paterson, NJ and at Community School District #2 in New York City.

All lesson study tools developed by the Lesson Study Research Group are regularly revised and updated. To download latest versions of these documents, please go to: www.tc.columbia.edu/lessonstudy/tools.html.

❖ **Suggestions for sharing feedback about the lessons:**

1. The moderator/ facilitator should begin the feedback session by (1) outlining the agenda for the discussion (e.g., “first we will hear from the teachers who planned the lesson, and then...”); and by (2) *briefly* introducing the goals of the planning group.
2. The teacher who taught the lesson should have the first opportunity to comment on his/ her reactions to the lesson, followed by the other planning group members. S/he should address what actually occurred during the lesson (e.g., what worked, what did not work, what could be changed about the lesson, etc.).
3. The planning teachers should also raise questions/ issues that were raised during the planning sessions, and describe how these concerns were addressed by the instructional decisions they made for the study lesson. If the feedback session is after the second implementation of a study lesson, the planning members should clarify what changes were made between the two lessons, and how these changes related to the goals of the lesson.
4. The planning teachers should direct the observers to give them feedback that is related to the goals of the lesson. The observers can then share feedback about the lesson that helps the planning teachers address these goals. For example, observers could share their suggestions about how they might have done something differently in their own classes. Or, they could ask the planning teachers about their rationales for making certain decisions about the lesson (e.g., “Why did you choose those numbers for that problem?”).
5. When observers share their feedback, they should begin on a positive note by thanking the teacher who taught the lesson and discussing what they liked about the lesson. Observers should then share critical feedback by supporting their statements with concrete evidence. For example, they could comment on specific observations from this particular lesson (e.g., “I saw student X do this...”), or make suggestions that draw upon their own experiences (e.g., “When I taught a similar lesson, I did (blank) differently because...”).
6. Each observer should comment on a specific aspect of the lesson, and then give other observers the opportunity to comment on this point or related aspects of the lesson. This procedure prevents the feedback session from becoming dominated by one observer, and allows others to share their insights. If an observer would like to share something that is not being discussed at that point, s/he can write it down for later.
7. Similarly, the teacher(s) who planned/ taught the lesson should wait until a few comments about a particular aspect of a lesson have been received before responding to the observers. This waiting etiquette prevents the discussion from becoming a point-volleying session, and allows all participants to voice and absorb the feedback in a reflective manner. In addition, the moderator should be responsible for proactively keeping the debriefing session on track.
8. The timekeeper should remind the group when time is running short, so that the group can meaningfully wrap up their debriefing session. If an outside advisor is present, the feedback session should end with general comments from that person.

APPENDIX F. LESSON PLAN TEMPLATE

GROUP __: __ GRADE ENGLISH LESSON

Date:
Grade:
Period and Location:
Instructor:

I. Background information

- A. Goal of the Lesson Study Group:
- B. Narrative Overview of Background Information:

II. Unit Information

- A. Name of the unit:
- B. Goal(s) of the unit:
- C. How this unit is related to the curriculum:
- D. Instructional sequence for the unit:

III. Lesson Information

- A. Name of the study lesson:
- B. Goal(s) of the study lesson:
- C. How this study lesson is related to the lesson study goal:
- D. Process of the study lesson:

Steps of the lesson: learning activities and key questions (and time allocation)	Student activities/ expected student reactions or responses	Teacher's response to student reactions / Things to remember	Goals and Method(s) of evaluation	Notes

E. Evaluation

F. Appendix

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For other lesson study tools, please go to: www.tc.columbia.edu/lessonstudy/tools.html.

APPENDIX G. PILOT STUDY RESEARCH LESSON PLAN

7th GRADE ENGLISH LESSON STUDY PLAN

Date: March 2, 2017

Grade: 7

Period and Location: Piri Mehmet Paşa Ortaokulu

Instructor: Participant 3

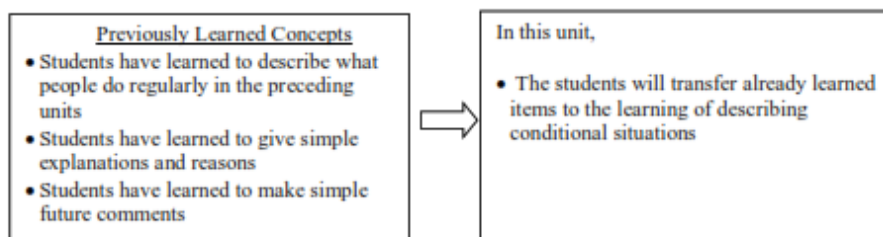
I. Background information

- A. Goal of the Lesson Study Group:** Our Lesson Study Group assumes that because of the negative effect of high-stakes tests on students and teachers, both parties are restricted in certain ways, which hinders to create an ideal interactive atmosphere in the classroom. The teachers feel obliged to use certain methodologies and strategies in order to cover central exam content. Therefore, the students are not able to find opportunities to develop themselves personally and socially as the lessons lack engaging and motivating educational activities responding to the needs of the students. In this sense, our lesson study group collectively decided on the goal “Contributing to students’ personal development through social, cultural and educational activities with methods and techniques that are going to be put into practice by the teacher”, which is in accordance with the purposes of national education in order to address the problems afore mentioned. By choosing this lesson study goal, it is thought that the students will actively engage in the lessons since the teacher will provide a variety of instructional activities in different formats in order to respond all the students’ needs which are assumed to change their perceptions and bias against the course and will lead them to take personal pleasure from learning.
- B. Narrative Overview of Background Information:** It is believed that the students have learned the necessary structures to build up conditional sentences. However, the problem is that they regard each given structure as isolated entities and so they have problems in transferring the already learned items to the learning of new things. Therefore, it is presumed that the students will have difficulty in constructing conditional sentences, as the structure requires joining some structural units together. Furthermore, it has been observed that the English classes are merely made up of grammar instruction in which fun and interaction elements are non-existing. Within this context, our research lesson is planned to bridge the gap in the application of already learned items into the new learning contexts by offering visually rich, interactive and motivating activities in which the students actively and voluntarily participate and take pleasure from the learning process.

II. Unit Information

- A. Name of the unit:** Public Buildings (Unit 8)
- B. Goal(s) of the unit:**
- Students will be able to identify the public buildings in their neighborhoods,
 - Students will be able to identify what people do regularly,
 - Students will be able to give explanations and reasons,
 - Students will be able to describe a condition and a possible result of it,
 - Students will be able to make future comments.

C. How this unit is related to the curriculum:



D. Instructional sequence for the unit:

Guidelines for instruction (12 Hours)

1st Phase : Describing public places and what people do regularly (4 Hours)

2nd Phase: Giving explanations and reasons and making simple suggestions using conditionals (4 Hours)

3rd Phase: Talking about plans and making simple future comments (4 Hours)

III. Lesson Information

A. Goal(s) of the study lesson:

The students will be able to obtain the objectives of the unit using the knowledge acquired previously in an interactive environment that is supported with variety of activities arousing students' interests and motivation.

B. How this study lesson is related to the lesson study goal:

This lesson is basically planned by the Lesson Study group in order to help students actively engage in English classes through the use of certain strategies and activities which are aimed to increase students' motivation. By doing so, it has been thought that the students will participate in the activities which require higher order skills such as transferring the already acquired items to the learning of new concepts and realize the personal satisfaction of learning.

C. Process of the study lesson:

Steps of the lesson: learning activities and key questions (and time allocation)	Student activities/ expected student reactions or responses	Teacher's response to student reactions / Things to remember	Goals and Method(s) of evaluation	Notes
Presentation (15 min.) -Brainstorming about public places (The teacher will draw a mind-map on the board and asks the students if they know any public places) What public places do you know? Instead of writing the words on the board, the teacher will stick the pictures of	- The volunteer students will respond with what they know. They may have some pronunciation problems.	- The teacher will praise the volunteer students with mimicry, gestures and words such as "well done, good work etc.) -The teacher will correct the mispronunciation politely helping the students self-correct	Do the students actively engage in the brainstorming activity? (The teacher will observe the students throughout the activity)	

them in order to assist them visually. - The teacher will present a video on public places for the purpose of strengthening vocabulary learning and revising simple present tense. (youtube video on my town) - Matching Activity (The students will match the words with the pictures of the places. The teacher will ask questions using simple present tense concerning the places) Where do you borrow books? Where do you go for shopping? (Practice 15 min.) -Narrative (10 min.) The teacher will present a narrative which is prepared with Powerpoint Presentation showing Conditional sentence structure (If Clause + Will/Should) The teacher will act out if necessary in order to make the meaning clear. He may ask some questions about the narrative after watching depending on the time such as " Where should the man go if there is a fire? Where do you go if you want to borrow	The students will watch the video attentively. The students will match the words with the places. We borrow books from the bookstore. We go to the supermarket for shopping. (The students may have problems in building up the sentences so that they may prefer giving short answers such as the bookstore or supermarket) The students will watch attentively. The student will enjoy the activity as it is visual and includes some funny elements. Some student may want to re-watch it.	themselves. The teacher may repeat the video if some students miss some parts because of the distraction The teacher will praise the students for their answers. If they make mistakes in matching, the teacher will help those students self-correct. The teacher will encourage them politely in order to make them give long answers. He/she may help those students by giving sentence models on the board and let them build up sentences based on them. He may also rerun the video. The teacher will watch students' reaction and engagement. The teacher may restart the presentation depending on the time.	The teacher will observe the students while they are watching the video Can the students match the words and public places correctly? Are the students able to make up sentences using simple present tense and public places correctly? Are the students able to answer questions about the presentation?	

books? etc.)				
- Fill in the Blanks Worksheet (10 min.) The teacher will hand out a worksheet on the structure which is composed of two parts. In the first part the students will complete the blanks using "Will". In the second part the students will fill in the blanks "should". The teacher will tell the students to do the worksheet in pairs. Therefore, he/she will give one worksheet for each pair. Review and Follow Up (10 min.) Game (What do you do if...?) The teacher will project the game on the board and select two volunteer students. The game will be prepared by the teacher for the purpose of revising the vocabulary on public places and conditional sentence structure. The teacher will give reward to the winner	The students may find the worksheet challenging as they have to complete the blanks using their creativity. The students may communicate in their native tongue while studying on the worksheet. The selected students will throw the dice and follow the instructions. More students could be willing to participate in the game. Other students may lose their attention and cause disruptive behavior.	The teacher will urge them to find the answers with their pairs and if necessary ask other pairs when they couldn't find the correct answer. The teacher will let them to communicate in their native language because the purpose of the activity is to make them build up accurate conditional clauses. The teacher will organize a second turn and divide the class into three or four groups and tell them to choose a representative for each group. The teacher will let the representatives to ask other group members when they couldn't find the answers and move forward. In this way, he/she will prevent disruptive behavior.	The teacher will walk around the classroom and observe the students while they are working on the task. The teacher will collect the worksheet and check them to see if the students do the questions correctly. Depending on the time, the teacher may project the worksheet on the board and discuss the questions with the students. The teacher will observe students' engagement and participation. Can the volunteers and representatives answer the questions and move forward in the game?	

D. Evaluation

- In order to evaluate the effectiveness of the research lesson from the students' perspectives the teacher will hand out a simple reflection sheet including emoji faces to the students.
- The observers will conduct a brief interview with the selected students taking 3 minutes during the break time after the lesson for the purpose of inquiring if the research lesson has reached its purpose or not

E. Appendix

1. Worksheet on If Clause sentence structure
2. What will you do game

APPENDIX H. RESEARCH LESSON PLANNING GUIDELINE

All lesson study tools developed by the Lesson Study Research Group are regularly revised and updated. To download the latest versions of these documents, please go to: www.tc.columbia.edu/lessonstudy/tools.html.

A Tool for Planning and Describing Study Lessons¹

I. Background information

A. Goal of the Lesson Study Group:

B. Narrative Overview of Background Information:

II. Unit Information

A. Name of the unit:

B. Goal(s) of the unit:

C. How this unit is related to the curriculum:

D. Instructional sequence for the unit:

III. Lesson Information

A. Name of the study lesson:

B. Goal(s) of the study lesson:

C. How this study lesson is related to the lesson study goal:

D. Process of the study lesson:

Steps of the lesson: learning activities and key questions (and time allocation)	Student activities/ expected student reactions or responses	Teacher's response to student reactions / Things to remember	Goals and Method(s) of evaluation

E. Evaluation

F. Appendix

¹Aspects of this tool were derived from lesson plans provided by Makoto Yoshida of Global Education Resources, L.L.C (myoshida@globaledresources.com), and by the Greenwich Japanese School, CT. In addition, a number of the planning questions suggested in this document were developed by Dr. Fritz Staub and Lucy West, under the auspices of the Learning Research and Development Center, University of Pittsburgh, and Community School District 2, New York City.

All lesson study tools developed by the Lesson Study Research Group are regularly revised and updated. To download the latest versions of these documents, please go to: www.tc.columbia.edu/lessonstudy/tools.html.

A Tool for Planning and Describing Study Lessons

This tool is designed to help you describe your study lesson. It is organized by sections, each focusing on a particular aspect of the lesson or its context. Each section contains a list of guiding questions you should think about as you complete that section. To make your work efficient, we recommend that you use this tool to guide your lesson planning process. Keep in mind that the list of questions that we provide is not meant to be comprehensive, but rather, to give you an idea of key issues that you should be thinking about. Many other questions or issues are likely to surface as your group plans its study lesson. These issues should also be incorporated into the appropriate section of your study lesson description.

Logistical information about the lesson

Date:

Grade:

Period and Location:

Instructor:

I. Background information

A. Goal of the Lesson Study Group:

This is a description of the group's lesson study goal and its focus. This goal will have evolved out of identifying the gap that exists between aspirations your group has for students and the kinds of learners that are actually being fostered at your school. Therefore, you may want to describe in this section: the aspirations that your group has for students and why they are important; ways in which, as a group, you feel you are falling short of these aspirations and how this is manifested in your students; how the goal your group has chosen represents an attempt to close this gap. You may also want to explain concretely what your exploration of this goal entails.

- What kind of learners do we want to see develop at our school?
- What kinds of learners are actually developing at our school? What evidence do we have for this?
- Why does this gap between our aspirations and reality exist? How can we close this gap?
- How will the lesson study goal we have chosen help us close this gap?
- How will we go about exploring our lesson study goal?

Note: although all the study lessons planned by your group will describe this same group goal, it is helpful for you and your planning group to write your own version of the above section.

B. Narrative Overview of Background Information:

This is a description of the lesson context. It is a way for you to set up and put in perspective the lesson. You should include all the background information that you feel is needed to appreciate the lesson in a meaningful way. For example, you may want to provide information regarding your students, what they know, and why this lesson is important to their continued learning and development. You may also want to mention any teaching techniques or approaches that you will be exploring in this lesson. Make this personal to you as the teacher, your classroom, and your individual students.

- What do the observers need to know about my classroom?
- Who are my students? What do they already know? What strategies do they use? What motivates them?
- What personal knowledge can I share with the observers so that they may better understand what is going on with my individual students? What individual differences will they see?

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- Why is this mathematics important?
- What misconceptions might students have?
- What should students know at the end of this lesson? What else would I like them to gain from this lesson?
- What do I think I can achieve in this lesson?
- Are there any teaching techniques or approaches that are central to the design of this lesson?

II. Unit Information

A. Name of the unit: State the name of the unit from which you have selected your study lesson.

B. Goal(s) of the unit:

This is a description of the learning goals for the unit.

- What is the mathematics here?
- What should the students know at the end of this unit?

C. How this unit is related to the curriculum:

This is a description of how the content that is taught in this unit relates to content taught in previous and future grades as well as this grade. It should include the specific concepts that are taught in those grades, and how they relate to the concepts taught in this unit. A curriculum guide may provide you with this information, but take some time to think about how everything relates, and the importance of an appropriate development of concepts. So that this task does not become unwieldy, include only highly relevant concepts in this description.

- What prior knowledge is necessary (to learn the content that this unit focuses on)?
- What new knowledge can be developed from the concepts that students will learn in this unit?

D. Instructional sequence for the unit:

This is a sequenced description of the general objectives of the unit. It should identify how the study lesson being described fits within the sequence. It does not need to list each individual lesson, but rather, the topics that are covered, and the number of lessons spent covering each topic.

- Where does this lesson fall in this unit and why?
- Do any of the lesson concepts and/or skills get addressed at other points in the unit?

III. Lesson Information

A. Name of the study lesson: State the name of the study lesson being described.

B. Goal(s) of the study lesson:

This is a description of the goals for this lesson. You may also want to include specific strategies, skills, or ways of thinking about mathematics you would like to address.

- What is the mathematics here?
- What should students know at the end of this lesson?
- Are there specific strategies being developed?

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C. How this study lesson is related to the lesson study goal:

This is a description of the specific aspect(s) of the group lesson study goal that you would like to focus on during this lesson. In this section you will want to relate your instructional choices for this lesson to the group lesson study goal.

- How will I explore our groups' lesson study goal through this lesson?
- What aspects of my lesson will address the groups' lesson study goal? In what ways?

D. Process of the study lesson:

This is a chart of the planned lesson sequence. It represents the bulk of the lesson plan, and often spans a number of pages. It describes what you have planned and expect to happen from the beginning of the lesson until the end.

Steps of the lesson: learning activities and key questions (and time allocation)	Student activities/ expected student reactions or responses	Teacher's response to student reactions / Things to remember	Goals and Method(s) of evaluation
<i>This column is usually laid out in order by the parts of the lesson (e.g., launch, investigation, congress, extension/applications, etc.), and also includes the allocation of time for each of these parts.</i> <i>This column should also include a description of key questions or activities that are intended to move the lesson from one point to another.</i>	<i>This column describes what students will be doing during the lesson, and their anticipated reactions or responses to questions/problems you will present.</i>	<i>This column describes things that you want to remember to do/not to do within the lesson as well as other reminders to yourself.</i> <i>Also, as you have anticipated student responses and reactions (previous column), this column provides a place where you can think through how you might use those responses and reactions in synthesizing a true learning experience within your classroom.</i>	<i>This column describes the goals that are being focused upon during each part of the lesson, and for each activity/problem.</i> <i>It should also include a concrete description of how you will determine that you have achieved each of these goals.</i>
<i>Guiding questions</i> How should this lesson progress? (How much time should I spend?)	What do I expect of my students? How will they respond?	Is there anything specific I want to remember to do? Any reminders for my students?	What should I look for to know that my goal(s) have been achieved?

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Questions continued...		What teaching pitfalls do I need to watch out for? What should I be looking for? Make sure I don't say "....." or do "....."	
How will I conclude the lesson?			What should students know at the end of this lesson? How will I know that they know it?

E. Evaluation

Describe your plan for evaluating the success of your lesson overall. Explain what you will look for in your students' in-class behavior and work products to determine if your lesson goals were met. Describe any homework of formal assessment that you plan to use as well. You will also want to be specific about what you are looking to collect information or evidence about with respect to your lesson study goals. You should also outline how you would like observers to assist you in collecting any of this information.

- *How will I determine if students understood the concepts taught in this lesson?*
- *What would be appropriate homework? What will I be able to tell about the student from his homework?*
- *What information do I want to collect in the course of this lesson?*
- *Where in my plan would I like some assistance?*

F. Appendix

Here you should attach or include copies of materials, handouts etc. that will be used during the lesson. For materials that will be used but cannot be attached (e.g., manipulatives) provide a written description and/or drawing. You should also include any materials that you have made specifically for the observers to use (e.g., observation tools, seating charts, etc.). This appendix is invaluable for observers to acquaint themselves with your lesson prior to entering your classroom. The more familiar they are with what is meant to transpire, and what you want them to focus on during their observation, the better they will be able to provide you with useful feedback.

APPENDIX I. LESSON OBSERVATION SHEET SAMPLE

LESSON STUDY CLASS OBSERVATION SHEET

Date: 02.03.2017

Grade: 7

School: Piri Mehmet Paşa Ortaokulu

Instructor: Participant 3

Observer:

Period	Student Observation	Teacher Notes
Harry (parent) → mother force answers → watching carefully → motivation still high → silent students appeared	native language in terms of communication Group working - use dual motivation still high using dictionary for the unknown words Visuals helps them to remember sometimes needs teacher as a challenge	
gave part	challenging in terms of understood facts motivation high excited for the game lost at acquisition L2 students except the hero, they didn't lose motivation always willing	little discussion and disagreement

LESSON STUDY CLASS OBSERVATION SHEET

Date: 02.03.2017

Grade: 7

School: Piri Mehmet Paşa Ortaokulu

Instructor: Participant 3

Observer:

Period	Student Observation	Teacher Notes
5 min	→ waiting for the examples → then respond to the teacher → mind-map worked → listens carefully → fully focused.	
5 min	→ video worked → had interest → respond to the teacher by repeating → under no-give problem	
after 10 min	→ while preparing activity, students interested and sharing opinion with desktop → pronunciation mistakes while participating → motivation still high. → participation missing → Repeating works on motivation	

APPENDIX I. STUDENT INTERVIEW SAMPLE

PILOT LESSON STUDY APPLICATION

STUDENT INTERVIEW

1.	What was the point of the lesson? What did you learn?
	→ in terms of vocabulary
2.	What worked in this lesson? What did you like about the lesson?
	like all of it
3.	What didn't work in the lesson? What didn't you like about the lesson?
	None
4.	Your teacher might teach this lesson next year. How could she/he make it better?
	better worksheet

APPENDIX J. FOCUS GROUP INTERVIEW GUIDING QUESTIONS

FOCUS GROUP INTERVIEW GUIDING QUESTIONS

1. Can you please comment on your Lesson Study experience?
2. What are the strengths of Lesson Study practice?
3. What are the weaknesses of Lesson Study practice?
4. Do you think that Lesson Study has had an impact on your professional development?
If yes, explain how.
5. Do you think that Lesson Study has had an impact on your personal development? If
yes, explain how
6. Do you think that Lesson Study has had an impact on your classroom management
skills? If yes, explain in what ways
7. Which aspects of Lesson Study have been most beneficial for you?
8. What would you have changed about the process?
9. Would you participate in another Lesson Study implementation if you had
opportunity?
10. Do you have any other comments you would like add about Lesson Study process?

APPENDIX K. RESEARCH LESSON 1 PLAN

6th GRADE ENGLISH COURSE LESSON STUDY PLAN

Date: March 30, 2017

Grade: 6

Period and Location: 5-Hacı Cevriye İlköğretim Okulu

Instructor: Participant 2

I. Background information

A. Goal of the Lesson Study Group: Depending on the group members' classroom observations and interviews with the students and teachers our Lesson Study Group decided on "increasing student engagement" as the overarching goal since it is the clear indicator of motivational development and vital component of students' academic achievement as expressed extensively in the relevant literature. Besides, it was also acknowledged that student engagement positively correlates with the purposes of national education, as it is believed that if students actively engage in the courses, they will develop higher order thinking skills such as creative and critical thinking and use them when given opportunities. The reasons behind selecting aforementioned overarching goal are students' observations of heavily teacher centered and grammar oriented English classes, which lack engaging and motivating educational activities responding to the needs of the students. In order to reach the goal Lesson Study Group planned the lesson on the basis of the following principles:

- Creating a classroom environment that takes all the students' needs and individual differences into consideration through rich variety of activities,
- Avoiding from explicit grammar instruction,
- Organizing challenging but manageable tasks for students,
- Integrating technology into class as much as possible in order to provide audio-visual materials,
- Arousing students' curiosity about the topic being studied through interesting and engaging activities,
- Implementing fun element into the classroom instruction through the use of games

Choosing this lesson study goal, it is believed that the students will actively engage in the lessons since they will take personal pleasure from learning and they will find opportunities to direct inquiry and discover for learning.

B. Narrative Overview of Background Information: The theme of the unit is "saving the planet" and it is expected of students to be able to make simple suggestions using appropriate lexicon. Although the unit is consisted of a number of language functions, Lesson Study Group limited the objectives to a certain level as it was thought that it would be too challenging for the learners to receive all the objectives of the unit in just one class session which is about 40 minutes. In this sense, the lesson is organized around the presentation of related vocabulary about saving the planet and structure of making suggestions (should/shouldn't) and the students are expected to combine both in order to make simple suggestions to protect the world. As it was observed by the Lesson Study Group members during their practicum experience that the learners are tired of explicit grammar instruction and being passive at all times the members decided to hide the structure into the tasks and activities and expect them to discover the structure, reflect on and use it when required. Therefore, most of the tasks and activities were planned to serve for this purpose and for the purpose of building connection with the overarching goal as well. Additionally, the group will not stick to the textbook as they believe that the course book is poorly designed and limited in terms of engaging tasks and activities.

The school planned for the application selected randomly by the group members and it is located in the city-centre. The students are from variety of socio-economic background and more than half of the students have limited interest and motivation towards English classes on the basis of class

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teachers' feedback. The classroom can be considered as crowded because the number is around 30 students. There are also some refugee students whose native languages are different from the majority. The classes are equipped with smartboards and available for enhancing the lesson with the technology-integrated instruction. Our Lesson Study Group planned the research lesson taking into consideration all these aspects and will try to increase students' curiosity and engagement by responding to their interests and needs.

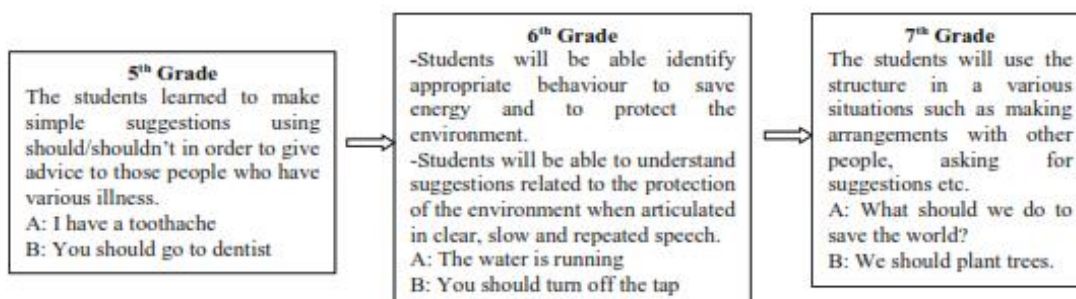
II. Unit Information

A. **Name of the unit:** Saving the Planet

B. **Goal(s) of the unit:**

- Describing what people are doing now
- Giving and responding to simple instructions
- Making simple inquiries
- Making simple suggestions
- Telling someone what to do

C. **How this unit is related to the curriculum:**



D. **Instructional sequence for the unit:**

Guidelines for Instructions (12 Hours)

Phase 1: Describing what people are doing now (3 Hours)

Phase 2: Giving and responding to simple instructions (3 Hours)

Phase 3: Making simple inquiries and suggestions (3 Hours)

Phase 4: Telling someone what to do (3 Hours)

III. Lesson Information

A. **Name of the study lesson:** What should we do to save the planet?

B. **Goal(s) of the study lesson:**

- The students will be able to express their opinions about protecting the world and environment when necessary and will use the appropriate lexicon while doing it.
- The main goal of the lesson is to increase students' engagement by creating a funny and interactive learning environment through the use of various tasks and activities which are motivating, interesting and engaging for the learners.

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C. How this study lesson is related to the lesson study goal:

As expressed in the relevant literature, it is expected that the students will engage in the research lesson behaviorally by showing effort, persistence, and attention and emotionally by showing enthusiasm, interest, satisfaction and pride. The lesson is designed to reveal these behavioral and emotional indicators through variety of interactive and technologically enhanced activities prepared by the lesson study group.

D. Process of the study lesson:

Steps of the lesson: learning activities and key questions (and time allocation)	Student activities/ expected student reactions or responses	Teacher's response to student reactions / Things to remember	Goals and Method(s) of evaluation	Notes
Informing Students about the Research Lesson: The teacher will give information about the purpose of the Research Lesson in the native tongue and assure the students of having an interesting and funny lesson flow. Warm Up (2-3 Min.) -Move and Freeze: Before moving on to the activity directly the teacher will give the instructions about the activity in English. The students will watch an action song which was thought to decrease students' anxiety level because of the presence of the Lesson Study Group. The song was selected purposefully as it was believed that it would respond to students' physical needs since the learners were assumed to be young learners.	- The students may seem puzzled at first. Some students may not understand the instructions in English While watching the action song, the students will perform the actions given in the video. The students will actively engage in the activity. The students may want to redo the activity.	The teacher will try to do her best in order to build a positive classroom atmosphere. The teacher will repeat the instructions with a simpler language. If they still have problems in understanding, she will shift to the native language The teacher will perform the actions with the students together Depending on the time, the teacher may accept students' offer or turn it down politely.	The teacher will observe students' reactions, mimicry and gestures in order to check their understanding. The teacher will ask the students to check their understanding. Did you all understand what we are going to do? She will also observe their body language Do all the students perform the activity or not?	

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Presentation (10 min.) * The teacher will give instruction about the following activity. -Song (5 Min.) *The students will watch a song on the theme "saving the planet" which includes the target lexicon and the structure. The aim of the song is to familiarize the students with the content. * The teacher will restart the video for the second time. However, she will pause the video at some points in order to do pronunciation activity. -Repeat after me! Recycle paper, turn off the tap etc. The teacher may point to some students who seem willing and tell them to repeat the word. Worksheet (5 Min.) * The teacher will distribute a worksheet about the target vocabulary which the students are expected to match the expressions with the correct picture. * The teacher will not collect the worksheet after the students have completed it since the students may need it in the following activity	Some students may have problems in understanding the instruction The students will watch the video attentively Some students may not be willing to participate in the pronunciation activity As the students are familiar with the expressions from the previous activity, they will match the expressions with the pictures correctly. Some weak learners may have difficulty in matching and ask help from the teacher.	The teacher will accompany the instruction with the body language to make the meaning clear. She will use the native language as the last option. The teacher will walk around the classroom without disturbing the field of vision to check students' attention The teacher will urge them politely and build eye contact to make them join in the activity. The teacher will tell those weak learners to ask for help from their desk-mates. If they still have problems, the teacher will provide the help.	The teacher will ask if they have understood the instruction (Did you all understand?) Try to check all the students and repeat the question if necessary. The teacher will check if all the students watch the video. After the pronunciation activity in chorus, the teacher will ask some individual students to check if they can pronounce correctly The teacher will walk around the classroom and observe students while they are working on the worksheet. Did the students do well on the worksheet?

Practice (15 min.) * Instruction: The teacher will inform the students about the following activity. Now, we are going to watch a superhero, Harry. He should save the planet. Let's see what he is doing * Narrative: (5 Min.) The teacher presents the visual narrative of Harry which was prepared by the Lesson Study Group for the purpose of presenting the structure. The structural items (should/shouldn't) were given in different colours to focus students' attention on them. While presenting the narrative, the teacher will act out as well in order to make the meaning clear. Depending on the time the teacher may restart the activity. * Following the narrative, the teacher will ask questions about Harry and his deeds to save the world. The teacher will assist the students with the visuals while she is asking questions. What should Harry do? (A picture of the bicycle)	*The students will listen and watch the narrative attentively. *Some students may translate the sentences into the native language * Some students will be volunteer and give the correct answer to the questions. * Some students may not answer the questions correctly * Some students may not want to answer the questions.	*The teacher will observe the student's attention while presenting the narrative. The teacher will not disrupt the students' attention. * The teacher will praise the students verbally and non verbally for their correct answers Well done! Good work! * The teacher will guide the students for self-correction. Are you sure for your answer Is it should or shouldn't? Be careful with... (The teacher will give clues for the self-correction) *The teacher will encourage those students without being offensive. Would you like to	Do all the students give their attention to the activity? Students correct answers for the questions Students incorrect answers for the questions. Unwilling students who are giving their attention to the activity but not volunteer to answer the questions. The teacher will observe	

* Quiz Show (3 Min.) Instruction: The teacher will give the instruction of the activity with a simple language, if necessary in the native tongue. * The teacher will choose the volunteer students for the quiz show and present the activity. * Before moving on the next task the teacher will collect the worksheet distributed before in order to avoid copying sentences. Worksheet-Free Writing (5 Min.) * The teacher will distribute the worksheet which the students are supposed to write at least five sentences on their own. What should/ shouldn't we do to save the planet. * The worksheet will be collected before moving on the next activity.	* The volunteers will answer the questions correctly and will receive positive reinforcement by the activity itself. * Volunteer students may answer the questions incorrectly. * Some students may discuss about what to write with their desk mates. * Some students may ask for help from the teacher	answer the question? I am sure you can do it. * The teacher will praise for the correct answers. Well done, very good. * The activity will get students to self-correct themselves so that the teacher will make explanation about the correct answer in the native tongue in order to avoid fossilization. * The teacher will let them to discuss as long as their discussion is about the task * The teacher will assist those students to make up sentences using the structure. She will not give full answers for the task. She will help them using some prompts such as I should /shouldn't	them during the activity. Do the students answer the questions correctly? Students' Worksheet	

Follow-Up (15 Min.) * Game: The teacher will divide the students into three groups depending on their seating arrangement. The teacher will distribute blank papers in different colors for each group. There will be two recycling bins in front of the board written should/shouldn't on. The teacher will draw a line as border to throw paper balls behind. The teacher will inform the students to write correct sentences using the target lexicon and structure and make paper balls. The teacher will project the lexicon on the smartboard in scrambled order. They will need to throw them into the correct bin. For each correct sentence in the correct bin, the group will get 1 score. The group with the highest score will win the game. The teacher will reward the winner group at the end of the activity. The other groups will be rewarded as well but their reward will be smaller than the winner	*All students will engage in the activity. *The students will discuss each other about what to write.	* The teacher will control the flow and organization of the activity. * The teacher will let them to discuss with the group members as long as it is about the task	* Do all the students participate in the activity?.	

E. Evaluation:

The teacher will evaluate the effectiveness of the research lesson depending on the students' worksheet and the Lesson Study Group members' class observation. Moreover, the students will conduct a brief interview with the selected students in order to use the data as feedback to test if the lesson has reached its overarching goal or not.

F. Appendix:

1. Ice-Breaking Activity Video: Move and Freeze
2. Warm-Up Video: Save the Planet Song
3. Worksheet: Matching
4. Narrative: What Should Harry Do to Save the Planet?
5. Quiz Show
6. Worksheet: Free Writing-What Should We Do to Save the Planet?

CURRICULUM VITAE

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