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**A METHODOLOGICAL COMPARISON OF POSTGRADUATE
THESES IN ELT BETWEEN 2019 AND 2021**

MASTER'S THESIS

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Dedicated to my family

ETİK BEYAN

Tezimin içerdığı yenilik ve sonuçları başka bir yerden almadığımı ve bu tezi Amasya Üniversitesi Sosyal Bilimler Enstitüsü'nden başka bir bilim kuruluşuna akademik gaye ve unvan almak amacıyla vermediğimi; tez içindeki bütün bilgilerin etik davranış ve akademik kurallar çerçevesinde elde edilerek sunulduğunu, ayrıca tez yazım kurallarına uygun olarak hazırlanan bu çalışmada kullanılan her türlü kaynağa eksiksiz atıf yapıldığını, bu tezde sunduğum çalışmanın özgün olduğunu bildirir, aksinin ortaya çıkması durumunda aleyhime doğabilecek tüm hak kayıplarını kabullendiğimi beyan ederim.14/06/2022

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ABSTRACT

A METHODOLOGICAL COMPARISON OF POSTGRADUATE THESES IN ELT BETWEEN 2019 AND 2021

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The Covid-19 pandemic has affected almost all aspects of life since it broke out in China in late 2019. Scientific research in social sciences has been one of the most affected aspects. Like other fields of social sciences, research in English Language Teaching (ELT) has encountered many issues to deal with. Psychological or physiological complications, lacking in reaching participants of their studies may have been some troubles researchers faced. On the other hand, distance, or flexible face-to-face education in all the educational cycles may have led some researchers to spend more time to conduct their studies. Regarding these possible effects, the main purpose of this study was to explore English Language Teaching researchers' methodological tendencies in their master's theses and doctoral dissertations published pre (2019) and while (2020, 2021) pandemic in Turkey. To achieve this aim, the sample of the study consisted of 934 postgraduate theses and dissertations 806 of which were master's and 128 of which were doctoral. The sample of this study included all the theses and dissertations in ELT published in the National Thesis Center of the Higher Education Institution in 2019, 2020 and 2021. After implementation of a pilot study with 271 theses and dissertations, a checklist including the main and sub-criteria of research methodology and a Microsoft Excel worksheet as data collection grid were developed by the researcher. By using the grid and the checklist, data was collected qualitatively by implementing qualitative document analysis method. The collected data was analyzed quantitatively by using descriptive statistics including mean scores, frequencies, and percentages of sub-criteria. Findings of the study revealed that the number of published master's theses and doctoral dissertations decreased while pandemic in comparison with pre-pandemic. In addition, the findings also revealed that pandemic affected the researchers' tendencies mostly negatively and partly positively in usage and

implementation of methodological elements in their master's theses and doctoral dissertations. The study has significance for further researchers in that the findings have shown that they should make their research planning both more adaptable and having alternatives in case of similar unusual situations in large or small scale like the pandemic.

Keywords: Research methodology, English language teaching in Turkey, Theses in English language teaching, The effects of Covid-19, Methodological trends



ÖZET

2019 VE 2021 YILLARI ARASINDA İNGİLİZ DİLİ EĞİTİMİ ALANINDAKİ LİSANSÜSTÜ TEZLERİN METODOLOJİK BİR KARŞILAŞTIRMASI

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Covid-19 salgını 2019'un sonlarında Çin'de ortaya çıktığı andan itibaren hayatın hemen her alanını etkisi altına almıştır. Sosyal bilimlerdeki bilimsel araştırmalar en çok etkilenen alanlardan biri olmuştur. Sosyal bilimlerin diğer alanlarında olduğu gibi İngiliz Dili Eğitimi (ELT) alanında da araştırmalar birçok sorun ile karşılaşmıştır. Araştırma örneklemine ulaşamaması, yaşanan psikolojik veya fizyolojik sorunlar, araştırmacıların karşılaşmış olduğu sıkıntılardan bazıları olabilir. Öte yandan, tüm eğitim seviyelerinde uzaktan eğitim veya esnetilmiş yüz yüze eğitim, bazı araştırmacıları çalışmalarını yürütmek için daha fazla zaman ayırmaya yönlendirmiş olabilir. Bahsedilen olası etkileri göz önünde bulundurarak, bu çalışmanın temel amacı, İngiliz Dili Eğitimi araştırmacılarının, salgın öncesi (2019) ve salgın döneminde (2020, 2021) yayınlamış oldukları yüksek lisans ve doktora tezlerindeki metodolojik eğilimlerini incelemektir. Bu amaca ulaşmak için araştırmanın örneklemini 806'sı yüksek lisans ve 128'i doktora olmak üzere toplam 934 lisansüstü tez oluşturmuştur. Çalışmanın örneklemini Yükseköğretim Kurumu Ulusal Tez Merkezinde 2019, 2020 ve 2021 yıllarında yayınlanan İngilizce Öğretimi alanındaki tüm yüksek lisans ve doktora tezlerini içermektedir. 271 tezden oluşan bir pilot çalışmanın uygulanmasından sonra, araştırmacı tarafından, araştırma metodolojisinin ana ve alt kriterlerini içeren bir kontrol listesi ve veri toplama aracı olarak bir Microsoft Excel çalışma sayfası tablosu geliştirilmiştir. Veri toplama tablosu ve kontrol listesi kullanılarak nitel döküman analizi yöntemi uygulanmış ve veriler nitel olarak toplanmıştır. Toplanan veriler, ortalama puanlar, frekanslar ve alt kriterlerin yüzdeleri dahil olmak üzere tanımlayıcı istatistikler kullanılarak nicel olarak analiz edilmiştir. Araştırmanın bulguları, salgın döneminde, salgın öncesine göre yayınlanan yüksek lisans ve doktora tezlerinin sayısının azaldığını ortaya koymuştur. Ayrıca bulgular, salgının araştırmacıların yüksek lisans ve

doktora tezlerinde metodolojik unsurları kullanma ve uygulama eğilimlerini çoğunlukla olumsuz kısmen de olumlu etkilediğini ortaya koymuştur. Çalışma, daha sonraki araştırmacılar için, bulguların, salgın gibi büyük veya küçük ölçekli benzer olağandışı durumlarda araştırma planlamalarını hem daha uyumlu hale getirmeleri hem de alternatifleri olması gerektiğini göstermesi açısından önem taşımaktadır.

Anahtar Kelimeler: Araştırmalarda metot, Türkiye’de İngiliz dili eğitimi, İngiliz dili eğitiminde tezler, Kovid-19 etkileri, Metodolojik eğilimler



PREFACE

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LIST OF ABBREVIATIONS

CoHE	: Council of Higher Education
EFL	: English as a Foreign Language
ELT	: English Language Teaching
EMI	: English as a Medium of Instruction
ESP	: English for Specific Purpose
ETE	: English Teacher Education
FL	: Foreign Languages
FLE	: Foreign Languages Education
MA	: Master of Arts
MoNE	: Ministry of National Education
Ph.D.	: Doctor of Philosophy
TEFL	: Teaching English as a Foreign Language
TFL	: Teaching Foreign Languages

CHAPTER I

1. INTRODUCTION

As one of the most significant requirements of globalization, the need for a common language has increased the prominence of English in science, economy, policy, etc. (Kırkgöz, 2007). Since physical and imaginary borders between states are getting removed by such factors as global economy policies, overseas trade, cooperation in science, social media interactions, advances in transportation, etc., the popularity of English is getting increased all over the globe (Belcher, 2007). All the European countries, South Korea, Japan, and China as eastern developed countries put importance on teaching English as a foreign language (Bolton & Graddol, 2021). Like other well-developed countries, Turkey, as a developing country, has adopted English as its first foreign language in each education cycle.

In the national education system, in Turkey, English as the first foreign language is taught starting with the second graders of primary school to the end of high school. Besides, because there are certain undergraduate and postgraduate programs whose medium language is English, in preparatory classes at the tertiary level, it also keeps being taught to university students (Kırkgöz, 2007). In other words, in Turkish educational system millions of students learn English every year.

Teaching English to millions of students necessitates a great number of English teachers. Main institutions to train English teachers in Turkey are universities having English Language Teaching (ELT) four-years-bachelor's program in faculty of educations (Karakaş, 2012). There are more than one hundred bachelor's ELT programs training prospective teachers in universities all over Turkey. Every year, thousands of English teachers graduate from ELT departments having a certificate to teach English in public schools, private schools, private language courses, etc. To teach English at tertiary level in Turkey, either in prep schools or in the undergraduate and postgraduate programs, teachers have to be awarded with master's or doctoral degrees.

As all the postgraduate programs, master's and doctorate programs in ELT aim to fulfill ELT graduates' academic needs, to train prospective scientists to contribute to science

and to train prospective teacher trainers (Karaman & Bakırcı, 2010). In this respect, there are about 30-35 master and 13-15 doctorate programs available each year in Turkey. In addition to train prospective scientists and fulfill academic needs of student, achieving to finish a thesis or dissertation is another ultimate goal and it is a must for students to be awarded with master's or doctorate certificate after completing their theses or dissertations (Kırmızı & Sarıçoban, 2013). The reason for writing theses and dissertations is not only to show the academic qualifications of the researchers but also to bring new phenomena to the literature. Thus, it can be stated that the quality of master's theses and doctoral dissertations reflects both the quality of the researchers and that of the literature in that field.

The quality of a research can be found out by not only its impact in the literature but also its content and outcomes (Lindgreen et al., 2021). That is, the quality of a research can also be examined by looking at such dimensions of research as topic, significance, purpose, research method, participants, findings, results of the study or the compatibility of these dimensions with each other. The compatibility of these dimensions and the quality of a study can only be provided by ensuring an optimum context for research. Optimum context for researchers is affected by researcher's content and methodological knowledge, accessibility of documents and samples for research, timing, research setting etc. If there is a lack in aforementioned conditions affecting the optimum context, the quality of research may decrease.

It can be stated that the more qualified a thesis or a dissertation is, the better the literature and the researchers get. In a similar vein, the quality of the literature and the researchers affect the academic context positively (Chen et al., 2018). The qualified academic context where English teachers are trained also affect English language teaching environments such as public schools, English language teaching centers, preparatory schools, etc. positively. Therefore, it would not be wrong to state that the quality of research including also master's theses and doctoral dissertations conducted at postgraduate levels in ELT in Turkey also reflects the quality of English language teaching in Turkey.

1.1. Statement of the Problem

As an English as a foreign language (EFL) country, in Turkey, hundreds of postgraduate level theses and dissertations are published by postgraduate students in ELT programs every year. Regarding their topics, theses and dissertations range from EFL learners to program evaluation; regarding the method sometimes quantitative research can be done, and sometimes qualitative. According to the research design they choose, researchers are involved in a process in which they need to use time effectively. The writing

period in postgraduate education generally takes 1 year at the master's level; while for a dissertation in doctorate level, it takes 2 years in average. Postgraduate researchers who must spend this time as effectively as possible may inevitably face some difficulties. These difficulties are sometimes caused by researchers themselves, such as psychological factors, health problems etc., and sometimes by external factors like family, work environment, etc.

Covid-19, which broke out in Wuhan, China in October 2019, have affected scientific studies besides affecting other aspects of life all over the world (Yorulmaz & Aydoğdu, 2021). Because of the pandemic, universities as well as kindergartens and K-12 schools in Turkey closed and most of them started distance education in March 2020 when the first Covid-19 case was recorded in Turkey. In that period, researchers who carried out their theses and dissertations including the samples such as students, English teachers, and teacher trainers, etc. may have had difficulty in reaching these groups. Therefore, that period may have negatively affected the context in conducting postgraduate studies regarding methodological patterns including the design, data collection method, sampling, etc.

Some researchers might have infected with the coronavirus after the beginning of the pandemic. Getting infected with coronavirus affected the optimum conditions for research (Shaukat, 2020). Because, after being infected, people are quarantined for 10 to 14 days, which means that researchers stay away from doing their research in this period. Apart from their physical healthy, they need some time to recover their psychology.

The pandemic affected not only people's physical health, but also their mental health because some people were afraid of being infected and dying; some thought that the world would no longer be the same (Rosenbaum, 2020; Alghamdi, 2021). With this psychology, in such an environment where people's basic needs and priorities change, the focus required for a researcher to carry out his academic studies possibly goes misdirect.

Researchers studying in doctoral and master's level programs had to stay away from their professors and supervisors because of distance education (Erichsen et al., 2014; Zahneis & June, 2020). Even though there are many communication tools available to contact supervisors, the effectiveness of distance supervising and meetings compared to face-to-face ones is still being discussed. The inability to be actively involved in the educational environment and not having collaboration with the supervisors directly are the factors that reduce the motivation of researchers.

Based on the circumstances mentioned above, the Covid-19 pandemic not only changed the personal and social lives of people but also affected the optimum context for researchers to conduct their theses and dissertations. Because not being able to reach, for instance, the samples of their research due to distance education, feeling psychologically uncomfortable and having mental problems during the research writing process, being infected with the virus and sometimes taking a long physical recovery period (Alghamdi, 2021), staying away from counselors and face-to-face education environments were the obstacles that researchers had to overcome while writing their theses and dissertations during the pandemic. All the obstacles mentioned have possibly affected the quality of their theses and dissertations in the field of ELT.

The problem statement of this study emerged that researchers may have had to adapt or changed the methodological aspects of their theses and dissertations because of the factors stemmed from impaired optimum context. Therefore, researchers' preferences of patterns such as research method, design, data collection, sample, data analysis in their theses and dissertations may have varied comparing pre and while pandemic periods. In this respect, this study examined researcher's tendencies in methodological choices by analyzing the methodological aspects of the theses and dissertations published in 2019 (Pre-pandemic), 2020 and 2021 (While-pandemic) in the field of ELT in Turkey.

1.2. Significance of the Study

This study is expected to have a very important place in the literature in terms of revealing how the pandemic has affected the studies carried out in the field of ELT, giving researchers an insight for their future studies in case of pandemic restrictions and distance education come to the fore again in future, and coping with possible problems and making alternative plans in their future studies. Not knowing exactly what to do in such a period may pose a great obstacle for researchers who make academic study plans. This study is also expected to give clues to novice researchers, who are at the stage of making a methodological plan of their research, about whether they will be able to implement what they have planned.

Topic selection after review of literature and specifying a problem in scientific research are the preliminary steps of planning research (Paltridge & Phakiti, 2015). Hence, the researcher of this study needed to conduct a comprehensive search in the literature by reviewing it before specifying the problem statement. In that, exploring ELT researchers' methodological tendencies pre and while pandemic is a significant issue to focus on and is a topic which has not studied in the ELT literature yet. In terms of filling out the gap in the literature, this study is also of a significant place in it.

Making a systematic analysis of studies in any field lead researchers to decide how and what to study. This study also, naturally, presented a systematic review of the methodological aspects of theses and dissertations written in the last three years also. In other words, this study is also of great importance because with the help of this study researchers will find a ready-made review in terms of research trends while searching the literature.

1.3. Purpose of the Study and Research Questions

In the methodology chapter of a study, readers can reach information such as which paradigm the researcher adopts, how they collect and analyzes the data, the sample he recruits in his study. In other words, a researcher describes how much effort he puts into his study in methodology chapter. Also, the quality of a research can be concluded from the methodology part, since there should be compatibility between the purpose of the study and its research method, design, sample, sample size, etc. Even a novice researcher can get information reflecting the quality of a research when they skim over the methodology chapter.

The analysis of methodological tendencies of researchers by examining the methodological patterns of the theses and dissertations pre and while pandemic period can reveal whether the pandemic made researchers in the field of ELT change or adapt the methodological choices in conducting their research and if it happened how and to what extent the modifications and changes were done.

The main purpose of this study was to make a contrastive analysis of the methodology parts of the theses and dissertations published in 2019 (Pre-pandemic), 2020 and 2021 (While-pandemic) in the field of ELT to reveal whether there has been a difference in researchers' methodological tendencies in their master's theses and doctoral dissertations by years. In the light of the main purpose of the study, the following two research questions with eight sub questions emerged as:

1. What were the descriptive statistics in terms of frequencies and percentages of master's theses and doctoral dissertations in ELT pre and while pandemic?
2. How did the master theses and doctoral dissertations published pre and while pandemic differ methodologically?
 - 2.1. How did master theses and doctoral dissertations differ regarding research method?
 - 2.2. How did master theses and doctoral dissertations differ regarding research design?

- 2.3. How did master theses and doctoral dissertations differ regarding data collection tool?
- 2.4. How did master theses and doctoral dissertations differ regarding data analysis method/calculation?
- 2.5. How did master theses and doctoral dissertations differ regarding sampling method?
- 2.6. How did master theses and doctoral dissertations differ regarding sample group?
- 2.7. How did master theses and doctoral dissertations differ regarding sample size?
- 2.8. How did master theses and doctoral dissertations differ regarding data analysis software?

1.4. Limitations

In this study, the researcher limits the scope of the research as following:

All the theses and dissertations in the field of ELT were taken from Thesis Center of Council of Higher Education. In the detailed search module of the database, theses and dissertations were taken from the following departments: *English Language Education, English Teaching, Teaching English as a Foreign Language, Foreign Languages, Foreign Language Education, Foreign Language Teaching, Secondary Foreign Language Education*. The theses and dissertations taken from “*Foreign Languages*” related departments are filtered as the theses written in English so as not to take other theses and dissertations related to other foreign languages such as German and French.

The sample of the research consists of 934 master's theses and doctoral dissertations, which includes all the theses and dissertations published in 2019, 2020 and 2021. The reason why the theses and dissertations before 2019 were not included in this study was due to a study which was conducted related to this study and whose scope was the theses between 2015-2018 (Acıroğlu, 2020).

Besides, methodological tendencies of researchers were explored by investigating methodology chapters of the theses and dissertations regarding the patterns *research design, research method, data collection tool, data analysis method/calculations, sampling method, sampling group/size and data analysis software*. Any other aspects of the theses and dissertations like topic, information about researchers' universities or supervisors were not included in order not to weaken the consistency and the content validity of the general aim of the study.

1.5. Definition of Terms

Research Method: It refers to the basic data collection and analysis methods and techniques used. Researchers may choose from a variety of research methods under various research methodologies, depending on the research questions, to gather and evaluate data to address their research query. There are three basic research methods in applied linguistics: qualitative method, quantitative method, and mixed-method.

Research Design: Research design refers to how researchers plan their studies using systematic approaches to get answers to specified research questions. It may involve *experimental, case study, survey-based research*, and so on.

Instrument: It is a general term used to describe the data collection tools researchers use. For quantitative data collection, instruments typically include all types of surveys, questionnaires, and inventories. Tools for data collection in qualitative research include all types of interviews, observations, diaries and journal logs, and field notes.

Data Analysis Method: If the data for a research project is gathered, the next step is data organization and data analysis. Via statistical assessments and through statistical software programs such as SPSS, quantitative data analysis is conducted. As for the qualitative analysis of data, it can take various forms, but it is primarily conducted through content analysis.

Sample: It refers to a small group of the population considered for study by researchers while examining a specific subject.

Data Analysis Software: It refers to a computer-based or online tool used for analyzing collected data by researchers. SPSS is one of the most popular and useful data analysis software for researchers.

Pandemic: The period when the COVID-19 pandemic, also known as the coronavirus pandemic, began on December 1, 2019, in Wuhan, the capital of China's Hubei province and it is still going on.

CHAPTER II

2. REVIEW OF LITERATURE

This chapter covers a brief review of research methodology, ELT education in English language teaching in Turkey, Covid-19 pandemic and its effect on research in ELT. At the end of the chapter a brief information about the related studies in the literature is covered.

2.1. Research Methodology

In the literature there are many definitions for '*research*'. Research can be defined as a study or experiment intended at discovering and interpreting facts, revising current theories or laws with new facts, or putting new or revised ideas or laws into practice ("Dictionary by Merriam-Webster," 2021). In the widest sense the meaning of research is finding answers to questions and that one's spending his time to discover the world around himself (Dörnyei, 2007). Fraenkel et al. (2015) defines research as it basically deals with enlightening underlying patterns, with a hypothesis often expressed as a theory. Creswell (2008) defines research as a series of steps used to gather and analyze data in order to gain a better understanding of a subject or situation. Research is a systematic process that includes data collection, documentation of significant information, and analyzing and interpreting the data and information in with appropriate methods established by specific professional fields and academic disciplines (Sarker, 2019).

Its systematicity requires research having certain fundamentals. There are three fundamentals of research which constitute the main body of research phenomena: philosophical worldviews (paradigms), designs and research methods (Creswell & Creswell, 2018). Regarding their worldviews, researchers decide on which design they adopt and which method they utilize in their research. For a systematic study, these are suggested to be seen as three pillars of research.

Philosophical worldviews can be listed as post positivism, constructivism, transformative, pragmatism and each has its own characteristics. Post positivism which can be called empirical or scientific worldviews is mostly adopted by traditional researchers who are deterministic and hold a philosophy relying on cause-and-effect pattern. Reductionism is a typical characteristic of this worldview which makes researcher put ideas into small

pieces. Through empirical observations and measurements researchers can verify theories. This worldview makes its supporter choose mostly quantitative methods rather than qualitative ones. Constructivists or social constructivists place emphasis on individuals' views because they would really like to know more about the world in which they live and work. Thus, researchers, in their studies, care their participants' ideas. They mostly adopt qualitative research methods rather than quantitative. Researchers having transformative worldview attach importance to the views of individuals as constructivists do. However, the marginal groups more worthwhile to pay attention. They concentrate mostly on marginalized groups, addressing themes such as empowerment, inequity, abuse, dominance, and alienation. Pragmatic worldview lets its advocators find solutions to problems in the first place. Focusing on methods is not the preliminary of researcher. Because the essence of this view is to find a solution, researcher can combine different types of research methods to get the target. To adopt mixed methods makes more sense to this world viewers (Creswell & Creswell, 2018).

The second fundamental of research is *research designs*. Deciding on research methods as qualitative, quantitative and mixed is not enough to form the basis of a research; researcher needs to select the type of research in these three methods. Quantitative designs can be classified as experimental and non-experimental designs. Qualitative designs include narrative research, phenomenology, grounded theory, ethnographies, case study designs. Lastly mixed methods design cover convergent, explanatory sequential, exploratory sequential, and transformative, embedded, or multiphase designs (Creswell & Creswell, 2018).

The last essence of research is *research methods*. Research methods include the types of data collection, data analysis processes. There are three types of research methods in the framework: quantitative, qualitative and mixed methods. In most general sense, quantitative includes numerical data to collect and analyze like the coded items of a survey, while qualitative mostly involves non-numeric data like verbal and non-verbal data sources. As its name suggests, the combination of quantitative and qualitative methods constitutes mixed methods.

Table 2.1. Creswell and Creswell's research methods classification (2018, pp.44)

Quantitative methods	Mixed methods	Qualitative methods
Pre-determined	Both predetermined and emerging methods	Emerging methods
Instrument based questions	Both open- and closed-ended questions	Open-ended questions

Performance data, attitude data, observational data, and census data	Multiple forms of data drawing on all possibilities	Interview data, observation data, document data, and audiovisual data
Statistical analysis	Statistical and text analysis	Text and image analysis
Statistical interpretation	Across databases interpretation	Themes, patterns interpretation

As stated in Table 2.1., in quantitative methods the processes are pre-determined while in qualitative ones, procedures are shaped according to the process of research. So, the questions in the former are mostly instrument based and close-ended while open ended-questions are more commonly used in the latter one. Data collection and analysis in the former are mostly based on performance, attitude, observational and census while the latter includes data collected through interviews, observations, documents and audiovisual sources to analyze. In quantitative methods data are analyzed and interpreted statistically while in qualitative methods because data are collected from texts and images, the analysis process includes themes and patterns interpretation.

As for the last fundamental of research *other elements shaped according to research methods*, they need to be utilized or selected by researchers to achieve the objectives and the goal of a research. They can be listed as *sample*, *setting*, *data collection* (tool, procedure), *data analysis* (method/calculation/software), and *interpreting*. Researchers are expected to respond *with whom/which*, *when/where*, *how*, *what* questions related to the methodological aspect of their studies.

Sampling indicates the procedure of involving a group of people who represent the larger group (population) for research intended to carry out by researchers (Dörnyei, 2007; Bhattacharjee, 2012; Fraenkel et al., 2015). Before involving the sample, researchers firstly need to decide on the target population of interest which may be teachers, students, administrators, etc. Because they cannot reach the whole population, they select the sample among accessible population (Fraenkel et al., 2015). After deciding on the target population, accessible and the final sample, researcher need to consider sampling method and sampling size. *Sampling method*, in the literature, is classified as random/probability and non-random/non-probability sampling by some authors. Probability sampling methods include random, stratified random, systematic, and cluster sampling while non-probability includes quota, snowball, convenience sampling (Dörnyei, 2007; Fraenkel et al., 2015). The important point which needs to be taken into consideration about sampling is that it may reduce or increase the bias while selecting the population of interest, which may increase or decrease the reliability of a research. Since non-probability sampling implementation might lead researchers have more bias in comparison with the implementation of probability

sampling (Fraenkel et al., 2015). Besides, researchers need to recruit more participants because there are usually possible dropouts in every research, and they need to consider enough participants in each group in experimental studies (Pallant, 2016).

Setting of research is one of the elements which may affect the process on a large extent. Conceptually, setting refers to a set of answers to the questions when, where how something takes place ("Dictionary by Merriam-Webster," 2021). Setting of research is shaped by the researcher's choice of design, sample, and the other elements of research. It covers the phase data collection; it can be affected by the conditions of time when the data collection is done and place where the data is collected. Researchers may face some unexpected situation while collecting their data, that's why they may have to adjust their research plan in the data collection phase into the new circumstances (Hedgcock & Lee, 2017).

Data collection is a methodological element that includes data collection tool and procedure. Almost for all research, data collection process requires to use an *instrument* (Fraenkel et al., 2015). In scientific research article, researchers need to utilize different types of instruments such as survey, scale, interview form, observation checklist, pre-test-post-test, etc. depending on the nature of the data to be collected (Pallant, 2016). The collection process needs to be in an order for systematicity, to be planned for a fluent flow and to be gotten consent of the participants for ethical considerations. These issues need to be taken into consideration for a systematic research *procedure*. If a researcher, for instance, does not consider ethical issues, the research procedure may be endangered and even sometimes blown over.

Known as the last link in the chain of methodological elements, *data analysis* generally includes methods, calculations and the software used for these calculations. According to the type of the data and the nature of research questions, researchers decide on the most appropriate way of analysis (Dörnyei, 2007). If the type of data, for example, is audio recording of a focus group interview about speaking anxiety of adult EFL learners, the researcher may use a transcription software, computer assisted qualitative data analysis software (e.g.: MAXQDA) for content analysis, or he/she prefers to do it conventionally by paper and pen. If the data needs to be analyzed quantitatively, researchers first need to decide on which way they use (descriptive, inferential; parametric, non-parametric), and which software they implement (e.g.: SPSS, Stata, etc.).

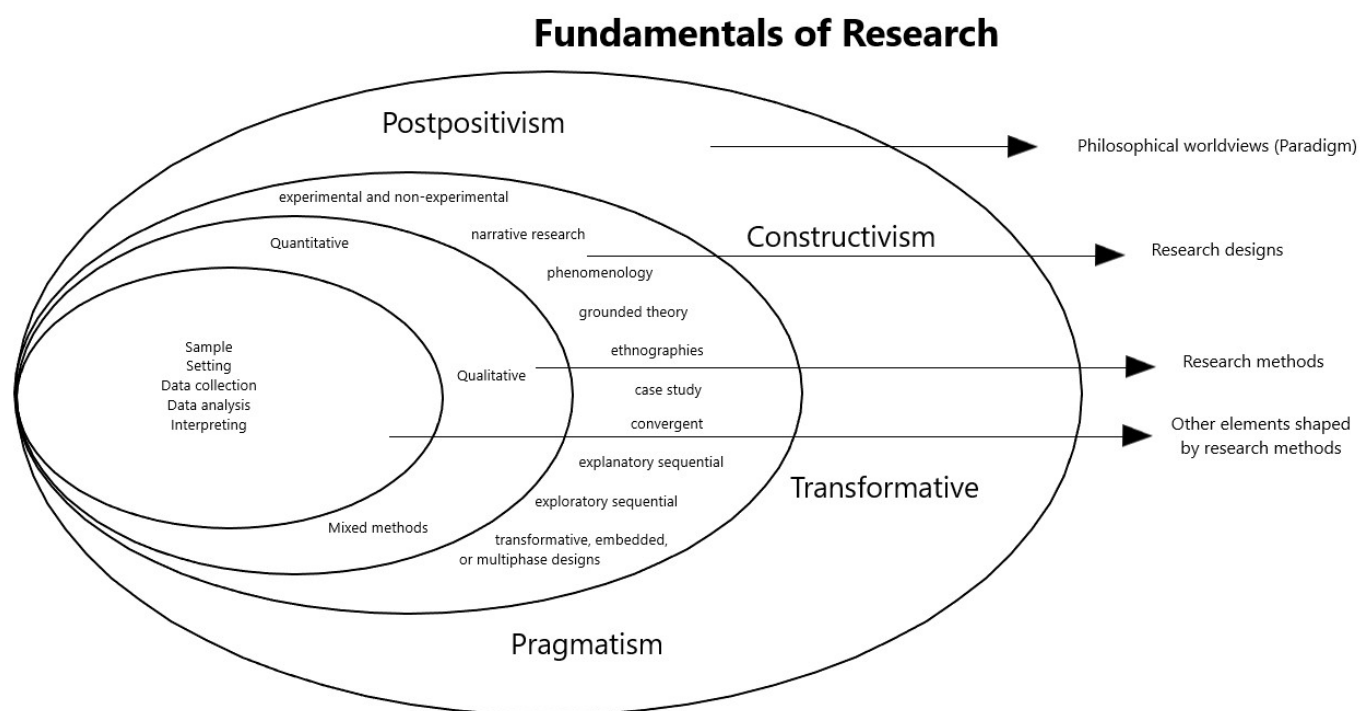


Figure 2.1 Fundamentals of research

As seen in the Figure 2.1., according to the philosophical worldview of researchers, they decide on research designs, research methods and techniques of sampling, setting, data collection/analysis and interpretation of data respectively (Tsang, 2016, as cited in Business Research Methodology, 2021). In scientific research, skipping any fundamentals of a study may affect fluency and quality of the process of research adversely

Scientific research stages

In the light of the theoretical aspect of the scientific research, a researcher needs to follow certain steps to proceed in a study in a systematic way. Systematic research includes certain steps as selection of topic, review of literature, research problem, purpose of the research, research questions, research methodology, context and method, ethical considerations, data collection and analysis, interpretation/conclusion, research communication (Paltridge & Phakiti, 2015). As demonstrated in Figure 2.2., each stage is related to the next one like a chain; if any stage is skipped or not given importance, the process of a research can have problems with the fluency of conducting it.

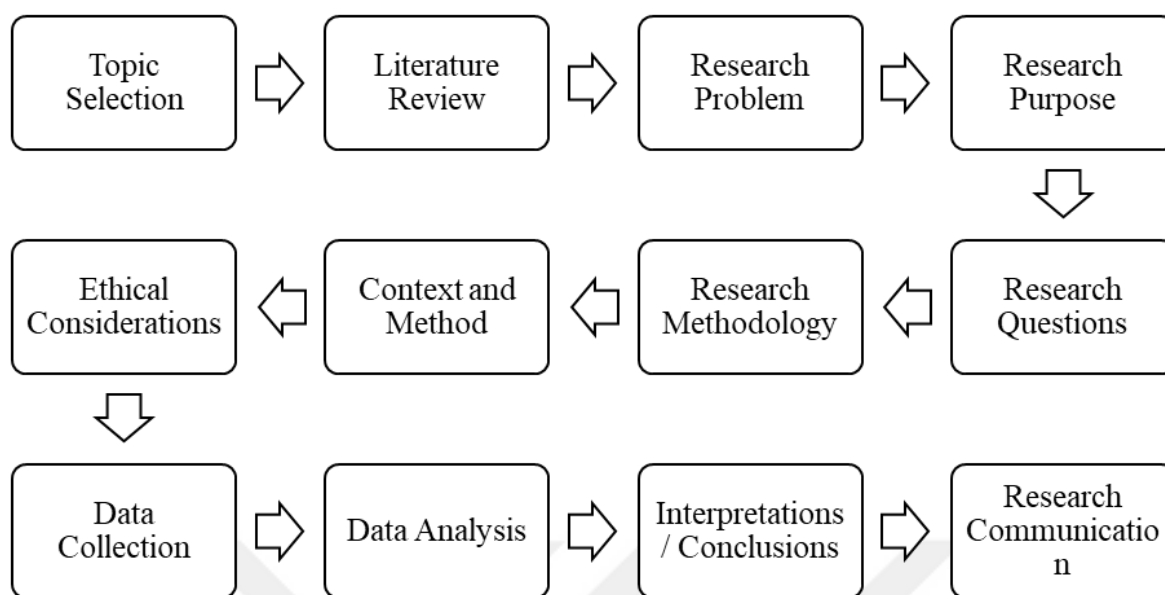


Figure 2.2. Common Research Stages (Paltridge & Phakiti, 2015)

Every researcher needs a plan to conduct a study properly. The plan should go beyond a simple time schedule; they need to plan even their steps of thinking to make their study plans in a systematic way. For example, starting to think with a problem statement which can be best fit into the current issues in the related literature may bother a researcher in upcoming stages of the research (Paltridge & Phakiti, 2015). Before thinking about the problem statement, researchers first need to think about the topic which they will study. Firstly, the topic to be focused on needs to be chosen. It shouldn't be underestimated this stage by researchers and it's better to think about topic as earlier as possible. ("Business Research Methodology," 2021) Researchers need to choose the topic regarding their interest. Some stages of the research may be really tiring, boring, requiring a lot of effort for researchers (Dörnyei, 2007). In such a case, if the topic does not motivate the researcher to proceed, the study may no longer be continued and may be in danger of being terminated.

After deciding on the research topic, researchers need to make a review of the literature. Making search on the relevant studies provides important information on the dimensions of the researcher's research topic, which research method and design is used, what kind of samples were studied, what findings and results are reached. However, literature review needs to go beyond to make a search on the relevant studies. Researchers, also, need to make further readings on theories, current issues and interdisciplinary aspects

of the topic to have a broad sense before focusing on the details of the study (Paltridge & Phakiti, 2015).

Comprehensive reading of the relevant literature not only add a sophisticated knowledge to the researchers, but also help them find research gaps that need to be dug in that topic (Creswell & Creswell, 2018). As finding gap(s) in the literature, researcher can define problem(s) to establish the study on it. Research gap(s) may be picked up from limitation parts of studies in the literature; however, sometimes researcher can generate a novel research problem. In both cases, the literature is suggested to be scrutinized since without being aware of the topic researchers focus on, a new research problem cannot be found out.

After deciding on the research problem, researchers need to focus on why he/she conducts the research. In this stage, he/she needs to state the purpose of the research. According to the purpose of the study, researchers are expected to generate research questions to find answers in a scientific way. Research questions can let researchers decide on the method of the study, since answering some questions may require following qualitative trends rather than the quantitative one, or vice versa (Paltridge & Phakiti, 2015). Thus, research questions cannot be seen as a simple stage of a research.

In the light of the purpose of the study and research questions, researchers need to decide on how they conduct the study. In other words, he/she makes a decision on which research method and design are best fit into to adopt (Creswell & Creswell, 2018). He/she also needs to define the research context which may involve in research sample, setting, data collection tools, data analysis procedure, calculations, etc. It can be stated that this stage constitutes a general map of the study which guides the researcher to take a step in the right direction and in the right time.

In all the stages of conducting a study, researchers are suggested to keep the ethical issues in their minds. Thus, ethical rules of institutes or journals need to be scrutinized before starting to conduct a study, especially to collect data (Paltridge & Phakiti, 2015). It needs to be noted that some organizations may require to get permission from the legal authorities before collecting data.

Data collection is one of the most crucial stages of conducting a study because the fact that this stage proceeds and ends with success can signify the success of the research (Paltridge & Phakiti, 2015). The data collection technique is determined regarding the methodological aspect of a study which can be qualitative, quantitative or mixed; experimental, descriptive, etc. After collecting data, it needs organizing to be analyzed. In

data analysis stage, the researcher is expected to answer the research questions emerged from the purpose of the study. The systematicity of data analysis stage leads to having quality and reaching findings in ease; however, this stage requires advanced statistical or non-statistical software competence. Before analyzing data, researchers are suggested to be well-equipped with statistical analysis programs and need to have a data analysis book with them serving as a guide.

In line with the data analysis, the obtained findings should be interpreted, and a conclusion should be reached. Interpretation and conclusion stage constitute one of the most important outputs of the research. The researcher needs to discuss research findings with reference to the theories and the relevant studies which mentioned in the literature review section (Paltridge & Phakiti, 2015).

After completing all the stages of research, it needs to be placed in the literature. In the communication stage of research, the researcher is suggested to share the study with community through making presentation in conferences, publishing it as research report or journal articles (Paltridge & Phakiti, 2015). The ultimate goal of scientific studies is to directly or indirectly benefit the world of science or humanity.

2.2. ELT in Turkey

Globalization has affected all the governmental and non-governmental international associations, societies, individuals all over the world. That's why, governments, international associations, people need to interact with each other. Concerning the technological aspect of globalization and developments in transportation, borders between the countries have started to weaken. As getting the borders weakened, lots of institutions involving governmental, educational, etc., have been getting internationalized. Thanks to the internet and social media which bring what is far away any time one needs, people who have curiosity in their nature have started to discover the world, societies, and individuals even without getting there. Therefore, the importance of learning English as the lingua franca in this global world is indeed increasing (Doğançay-Aktuna & Kızıltepe, 2005).

2.2.1. ELT in K-12 Education

Beyond globalization, because Turkey is located as a bridge between Asia and Europe, it requires strong economic, social, and cultural ties with the west in which most of the countries adopt English as lingua franca, which means that learning English is a must in such strategic geography. As a developing country, in Turkey learning English is seen as an advantageous phenomenon that enables Turkish people to get better achievements in academic, social life and to have better job opportunities both nation-wide and

internationally (Doğançay-Aktuna & Kızıltepe, 2005). Therefore, foreign language education policymakers in Turkey have located English as a foreign language in its center since the 1950s (Ulum, 2015). Especially since the 1980s, actors in the field of ELT composing of policymakers, teachers, teacher trainers, etc., have determined its goals regarding Turkey's history, geography, its learners' motivations (Kırkgöz, 2017). This has led the program designers to follow the current issues such as technological developments, migration, political changes which are closely related to education and required some changes and innovations in English teaching. In this sense, there have been some major reforms and changes in the English language teaching curriculum for the past three decades. These changes can be listed as follows; (1) The 1997 curriculum change, (2) The 2005 curriculum change, (3) The 2013 curriculum change, (4) The 2018 curriculum change.

Before 1997 curriculum innovation, which is also an educational reform in terms of extending the compulsory education from five years to eight years, English language teaching used to start by the 6th grade at primary level and high school level, while in Anatolian high schools and Super high schools there was compulsory intensive English preparatory program for one year while in general high schools, intensive English preparatory school were not applied. With the 1997 curriculum changes, English instruction was started to involve 4th and 5th-grade young learners with two hours per week. The new curriculum also adopted the Communicative Language Teaching method (CLT) in English language teaching (Kırkgöz, 2007). Another important characteristic of this change was that the teachers were not seen as a source of knowledge anymore, instead they were facilitator in the learning environment and student-centered instruction were to be adopted to make learners more active (Sarıçoban, 2012). Within these developments and changes, the 1997 curriculum brought some problems with itself. For instance, within the new developments in methodological philosophy, lowering English education level and changing instructional pattern, in the teaching environment there were problem related to teachers' readiness level to the new curriculum; in other words, teachers tried to instruct communicative activities in a traditional way (Kırkgöz, 2007). The program, also, had some environmental and physical deficiencies such as oversized classrooms in number, material deficiencies, time limitations to reach the objectives, evaluation-based guidance problems, etc. (Büyükduman, 2005; Erdoğan, 2005).

Both the problems that had been faced in the previous curriculum changes in the application phase, and efforts to make progress with EU standards for foreign languages pushed MoNE to make some more radical changes and innovations in the curriculum. The most striking innovation in the 2005 curriculum was that a student-centered constructivist

teaching approach (Erarslan, 2016) and performance-based assessment method were mainly adopted (Kırkgöz, 2007). In addition to the 2 hours of compulsory English lessons taught in the fourth and fifth grades, 2 hours of elective English lessons were added at the primary education level. Also, the latest curriculum included numerous craft operations, tasks, songs, plays and games to encourage learner autonomy and involvement in the process. Besides, with extending 3 years-long high education duration to four years, the one-year intensive English preparatory program, which was compulsory for Anatolian and Super High Schools, was abolished. Instead, English lessons were updated to be taught 10 hours per week in 9th grade and 4 hours per week in 10th, 11th, and 12th grades. In normal high schools and vocational high schools, 3 hours of English lessons were given only to the 9th-grade students. The 2005 curriculum was obviously more comprehensible than the latter one, since the curriculum document prepared in 2005 contained such aspects as designing curriculum issues, how to select materials according to the grades, differences between acquisition-learning, and young learners-adolescents (Kırkgöz, 2007). Nevertheless, the current curriculum had been faced some problems similar to those of 1997 curriculum (Topkaya & Küçük, 2010).

With the education reform carried out in 2012, eight-year compulsory primary education and later high school education which was called 8 + 4-year education, evolved into a twelve-year compulsory education model called 4 + 4 + 4. This major change necessitated changes in not only the English curriculum but also all the curricula. With the changes in the English curriculum in 2013, English language teaching, which started in the fourth grade according to the old program, started to be taught in the second grade. In this curriculum like previous ones, implementing communicative approaches for English instruction was the basis. Accordingly, textbooks were revised and edited regarding the needs and readiness levels of students; authentic materials, role play activities, drama, etc. were integrated into the syllabi. Another salient aspect of the new curriculum was that it adopted the main principles and descriptors of the Common European Framework of Reference for Languages (CEFR) including Learning, Teaching, Assessment. Therefore, in terms of assessment, peer and self-assessment were integrated into the new curriculum. However, this new program had similar challenges that were faced by students and teachers like the previous curricula (Çankaya, 2015; Alkan & Arslan, 2014).

Considering the major principles and characteristics of the 2018 curriculum, nothing has changed much concerning the educational system of primary and secondary education at all. Although there were no major changes in the education system, an important

innovation was introduced: In some pilot schools, an optional intensive English preparation program was offered to 5th-grade students.

As it can be seen from these set of developments mentioned above shows that in Turkey, ELT specialists have been trying to standardize English language teaching to achieve success. The changes and innovations in the English language curricula also show that there has been great effort to make English language teaching best fit into the needs of EFL students in Turkey and the needs of the time.

In the light of the developments in Turkish educational system, compulsory English language education starts from 2nd grade and goes on till the end of high school at K-12 education in Turkey; as it can be seen from Table 1 while some grades take English courses two hours per week, some other may take it six hours per week (Kırkıç & Boray, 2017).

Table 2.2. Mandatory English Course Hours by Grades

Grades	2.	3.	4.	5.	6.	7.	8.	9.	10.	11.	12.
Weekly lesson hours	2	2	2	3	3	4	4	6	4	4	4
Annual total lesson hours	72	72	72	108	108	144	144	216	144	144	144

It can be seen from Table 2.2. that even though students awarded a high school certificate takes at least 1386 hours during the K-12 education, without elective English courses, they may take an achievement test at the beginning of higher education and might be pushed to involve in an English preparatory program, which means that they need to take more English instruction. Because in higher education, some of the departments adopt English as medium instruction and make preparatory program compulsory for their students, some others just give English as a subject for freshmen. In short, English as a foreign language is taught almost all students in each educational level.

The fact that English language is taught repeatedly in each educational cycle shows that there are still deficiencies in English teaching and learning. According to the results of the Education First English Proficiency Index (EF EPI), of all 112 countries involved in the index, in 2021 Turkey was in the 70th line (Score: 478) with a low proficiency level; and of all 35 countries, it was in the 34th line in Europe (Ef EPI, 2021). Besides, in its 2020 report (it was in 64th line in 100 countries with 465 score in the world list), EF EPI gave a special chapter for Turkey stating that:

“English proficiency in Turkey has declined in the past five years, although recovering somewhat this year, as the country’s dreams of joining the European Union (EU) have faded and other priorities have emerged. As in the Gulf States, Turkish graduates often need a

year of intensive English preparatory courses before entering university because their level of English is too low for the degree they plan to pursue.”

It can be concluded from the quotation that because of the unclarity of the admission process to the EU and for experiencing negative developments in recent years in this process, Turkey has been dragged into a massive failure in learning English (EfFEPI, 2020).

2.2.2. ELT in university level in Turkey

English Language Teacher Education (ELTe) in Turkey

To be awarded an English language teaching certificate in Turkey, teacher candidates must get a bachelor's certificate by graduating from ELT departments of educational faculties of universities, or graduate from such departments as English Language Literature, Translation and Interpreting in faculties letters of universities with getting pedagogical formation certificate which is provided by educational science departments of educational faculties. However, the ELT department is the main domain that will be covered here.

Bachelor's degree in ELT departments takes eight semesters, four years. In this period, the program offers students pedagogical and field courses with theoretical and practical information on how to instruct English in teaching environments. In the first year of the program, students are mostly offered courses related to their English language competence as contextual grammar, language skills, linguistics, etc. In the following years of the program the courses mostly related to the pedagogic extent like approaches and methods in ELT, teaching skills, testing and evaluation etc. constitute the main body of the program. The last year of the program, with courses like teaching experience and guidance in school, prospective teachers are equipped with sufficient experience for their teaching lives. Students of ELT need to complete 240 ECTS at the end of their education to be awarded with bachelor's degree (Turkey Higher Education Qualifications Framework, 2021).

Table 2.3. Universities having bachelor's degree programs in ELT

	University Type			Total
	State Universities	Foundation Universities	Universities in North Cyprus Turkish Republic	
	<i>f</i>			
Total number of universities having ELT programs	58	15	8	81
Total number of ELT programs	65	36	18	119

Tuitions Fee Free programs	59	15	8	82
50% Scholarship programs	3	13	7	23
25% Scholarship programs	0	2	0	2
Programs with tuition fee	3	6	3	12
The number of students in total	18105	2240	No data	2034
The number of students enrolled in 2021-2022 academic year	4167	740	328	5235
The number of academicians (Asst. Prof. Dr., AssocProf. Dr.,Prof. Dr.)	294	57	No data	351

According to Higher Education Program Atlas (2021), in 2021-2022 academic year, ELT departments are available in 81 universities with 119 programs in Turkey. As seen in Table 2.3., the universities are classified as State, Foundation and Universities in North Cyprus Turkish Republic (NCTR). In this universities there are active tuition free ($f=59$), %50 scholarship ($f=23$), %25 scholarship ($f=2$), and without scholarship programs ($f=12$) in total. In state universities, 18.105 students are currently enrolled in ELT programs; in 2021 4.167 students were enrolled in the beginning of 2021-2022 academic year. In foundation universities there are 2240 students in total, 740 of which were enrolled in 2021-2022 academic year. The only data available on the website is that in 2021-2022 academic year 740 students were enrolled in the universities in NCTR. The number of academicians titled Assistant Prof., Associate Prof., and Professor is 294 in the state universities, 57 in the foundation universities, and there is no data available in the universities in NCTR.

The descriptive characteristics show that every year approximately 5.000 ELT students graduate from the universities. While majority of the graduates prefer to work directly as English teachers in state or private schools, some of them will undoubtedly want to pursue postgraduate education and advance in their academic careers.

Postgraduate Education in ELT in Turkey

In Turkey, to get awarded with the master's degree in ELT, candidates must complete all the courses they take which consist of at least 90 to 120 ECTS. The course period and the thesis period each last at least 1 year, in total 2 years. During the course period, the candidates basically get courses related to scientific research methods in addition to getting advanced elective field courses. After completing the course period, the candidates are expected to finish the master's thesis and have to defend the thesis in the thesis jury.

Table 2.4. Universities having master's degree program in ELT

	The name of the university	Type	Alternative
1	Cukurova University	State	Without thesis
2	Amasya University	State	No alternative
3	Middle East Technical University	State	No alternative
4	Hacettepe University	State	No alternative
5	Gazi University	State	Without thesis
6	Baskent University	Private	Without thesis
7	Ufuk University	Private	No alternative
8	Ted University	Private	No alternative
9	Akdeniz University	State	No alternative
10	Balikesir University	State	No alternative
11	Burdur Mehmet Akif Ersoy University	State	Without thesis
12	Bursa Uludag University	State	No alternative
13	Pamukkale University	State	No alternative
14	Trakya University	State	No alternative
15	Gaziantep University	State	Distance education available
16	Hakkari University	State	No alternative
17	Suleyman Demirel University	State	No alternative
18	Bogazici University	State	No alternative
19	Istanbul Medeniyet University	State	Evening education available
20	Yeditepe University	Private	Without thesis
21	Bahcesehir University	Private	Distance education available
22	Istanbul Aydin University	Private	No alternative
23	Izmir Democracy University	Private	No alternative
24	Erciyes University	State	No alternative
25	Kocaeli University	State	No alternative
26	Necmettin Erbakan University	State	Without thesis
27	Inonu University	State	No alternative
28	Cag University	Private	No alternative
29	Mugla Sitki Kocman University	State	No alternative
30	Sakarya University	State	No alternative

As it can be seen from the Table.2.4., there are 30 universities that have ELT Master's degree program in Turkey. Of all these universities while some of them are state universities ($f=22$), the others are private/foundation universities ($f=8$). Cukurova, Gazi, Baskent, Burdur Mehmet Akif Ersoy, Yeditepe, Necmettin Erbakan Universities have also without thesis master's degree program. The fact that there is also distance education option in Gaziantep and Bahcesehir Universities for a master's degree with a thesis is very advantageous for the students.

Istanbul Medeniyet University has evening education available for master's degrees without thesis which can be a good option for prospective graduate students (Study in Turkey, 2021).

Getting awarded with the master's degree with thesis is the prerequisite of enrolling in a doctoral program in ELT. To get awarded doctorate's degree needs following some steps as follows: to succeed in courses and complete at least 180 to 240 ECTS; to be

successful in the doctoral proficiency exam, to complete the dissertation monitoring committees' interviews successfully, to defend the dissertation in the jury. In general, doctorate's degree program lasts eight semesters, in the first two years doctorate candidates take advanced scientific research method courses in addition to advanced elective courses related to their fields.

Table 2.5. Universities having Doctoral degree program

	The name of the university	University Type	Integrated DR
1	Cukurova University	State	Not available
2	Middle East Technical University	State	Not available
3	Hacettepe University	State	Available
4	Gazi University	State	Not available
5	Pamukkale University	State	Not available
6	Anadolu University	State	Not available
7	Bogazici University	State	Not available
8	Istanbul Cerrahpasa University	State	Not available
9	Yeditepe University	Private	Not available
10	Bahcesehir University	Private	Not available
11	Cag University	Private	Not available
12	Mugla Sitki Kocman University	State	Not available

As can be seen from Table 2.4, in Turkey, 12 universities have Doctoral Degree ELT programs. Three of the universities are public and the rest of them are state universities ($f=9$). Only Hacettepe University has an Integrated Ph.D. program for prospective graduate students (Study in Turkey, 2021).

2.2.3. Research in postgraduate education in ELT

As stated in the previous section, writing and defending master theses and doctoral dissertations is the exclusive goal of both degrees; without completing this final goal the candidates of master's and doctorate are not awarded with degree certificates. In master's degree the time allowed to complete a thesis is two semesters long; while in doctoral degree it is at least 3 semesters (Turkey Higher Education Qualifications Framework, 2021).

Table 2.6. Frequencies of theses and dissertations published on the website of CoHE's National Thesis Center (from 1990 to 2021)

	Department of	Master Theses	Doctoral Dissertations	Total
1	English Language Teaching	1312	231	1543
2	English Teacher Education	98	20	118
3	Teaching English as a Foreign Language	138	5	143
4	Foreign Languages Education	892	212	1104
5	Teaching Foreign Language	40	7	47
6	Foreign Languages	69	6	75

7	Secondary Education Foreign Languages Teaching	0	0	0
TOTAL		2549	481	3030

According to the database of Council of Higher Education (CoHE) Thesis Center in Turkey, there are seven different departments related to English language teaching: (1) Department of English Language Teaching, (2) Department of English Teacher Education, (3) Department of Teaching English as a Foreign Language, (4) Department of Foreign Languages Education, (5) Department of Teaching Foreign Language, (6) Department of Foreign Languages, (7) Department of Secondary Education Foreign Languages Teaching. Table 2.6. demonstrates that there have been published in total 3030 research whose 2549 are master theses and 481 are doctoral dissertations in the web site of CoHE Thesis Center (See Appendix 1).

2.3. Covid-19 Pandemic

Since the first Covid case arose in October 2019 in China, it has spread all over the world. For more than two years, the world has fought against the pandemic by taking strict precautions and requirements such as partial curfews, wearing a mask, vaccination, and so on. It has affected each part of life and changed lifestyles of people (Yorulmaz & Aydoğdu, 2021). First, the countries started to close their borders, stopped the flights for incomings and outgoings.

As soon as the first case was seen in Turkey in March, there have been taken many precautions and restrictions almost everywhere social. Moreover, all the schools, institutions, universities, and so on were closed immediately and went on their education distantly. Despite the precautions taken, afterward the first case was seen in March 2020, by the end of 2021 almost 10 million people were infected and more than 80k people passed away due to coronavirus in Turkey. (Worldometer, 2021).

2.3.1. The Effect of Restrictions on K-12 Education in Turkey

Face-to-face educational environments during the pandemic were perceived as a risk that should not be taken by the Ministry of National Education (MoNE) in Turkey due to the uncertainty of the pandemic. Therefore, on March 11, 2020, the date of the first case in Turkey, on the advice of the Coronavirus Science Board in Turkey, MoNE decided to close the schools immediately and started to make plans to get through this period with the least damage. Since March 12, 2020, MoNE has released the restrictions against the pandemic. This process has been such a time that schools were partially closed and opened; distance and face-to-face education are carried out together; schools are completely closed and

reopened; it was also a period in which all these were repeated. With the break for face-to-face education, the significance of distant education highly increased (Daniel, 2020; Marek et al., 2020; Toquero, 2020).

Table 2.7. News released related to restrictions in education in MoNE's website

Release date	Pandemic precautions of MoNE
March 12, 2020	All schools were closed for 2 weeks from March 16 to March 30. Distance education will start on March 23 with <i>TRT EBA Okul TV</i>
March 25, 2020	Distance education will continue until April 30.
March 29, 2020	Live classes in distance education will start for 8th and 12th grades via <i>EBA</i> .
April 29 2020	Distance education will continue until May 31.
August 12, 2020	The new academic year will start with distance education on August 31st, and face-to-face education will begin on September 21 in a "gradual and diluted" way.
August 31, 2020	2020-2021 academic year started with distance education.
September 21, 2020	Face-to-face education started 2 days a week only in kindergarten and 1st grades with the consent of the parents.
October 12, 2020	Face-to-face education started for the 2nd, 3rd, 4th, 8th and 12th grades. Village schools at all levels were fully opened with face-to-face education.
November 18, 2020	All schools switched to distance learning from November 20, 2020, to January 4, 2021.
December 28, 2020	The break in face-to-face education at all education levels has been extended until February 15.
February 2, 2021	On February 15, all village schools will be opened at all levels. On March 1, all primary schools and 8th and 12th graders will start face-to-face education.
February 26, 2021	Starting with the teachers in village schools, the vaccination program of the teachers started.
April 15, 2021	All schools, except pre-school and 8th and 12th grades, have switched to distance education.
May 31, 2021	As of June 1, all kindergarten, primary schools and village schools are going to face-to-face education. As of June 7, all middle and high schools will start face-to-face education 2 days a week. The academic year ends on July 2.
August 19, 2021	2021-2022 academic year will begin on September 6, full-time face-to-face.
September 6, 2021	Face-to-face education has begun at all levels. As a precaution, if there are 2 positive cases caused by a teacher and a student in any classroom, except for preschool, we take a break from education for 14 days in the classroom and they continue to their education distantly on digital platforms.
October 4, 2021	Students who are accepted as close contacts are followed up with symptoms, if the PCR result on the 5th day is negative for those who do not develop symptoms, the quarantine of the students is terminated, and the students continue face-to-face education at school.
November 21, 2021	Teachers' vaccination rate is 93%. As of November 22, 2021, only 66 of 850000 classrooms are closed.

Pandemic precautions taken by MoNE against the infection of coronavirus in Table 2.7. show that schools are not let become a kind of '*virus spread centers*.' Because, by their nature, it's hard for pupils to keep wearing their masks in the classroom, to keep social distance among their peers, MoNE tried to stay away from fully face-to-face education as much as possible. Accordingly, the schools kept fully closed from March 16 to the end of the spring semester in 2020. In this period students were taught via Educational Information Network (EBA) and TRT EBA TV (Ministry of National Education, 2021).

After the summer break, distance education kept going between August 31 to September 21. Education was switched to face-to-face only in kindergartens and 1st graders two days per week. Between the dates 12th of October and 20th of November, all village schools, kindergartens, the first phase of primary schools, 8th and 12th graders were taught face to face. 20th November to 15th February, schools were closed and switched to distance education again. 15th of February was the date when all village schools, kindergartens, the first phase of primary schools, 8th and 12th graders started to be taught face-to-face again, but it lasted not so long; all schools, except pre-school and 8th and 12th grades, have switched to distance education. Even though before the end of 2020-2021 academic year face-to-face education started again in the mentioned level and graders, it lasted only a month (Ministry of National Education, 2021).

In 2021-2022 academic year, MoNE decided to open all the schools including all grades. The rate of coronavirus infection cases in that semester were more than that of previous semesters, because of the availability of and the rate of vaccination, schools all the schools kept open in face-to-face education, though. But it depends on the fact that if there are less than 2 positive cases caused by a teacher and a student in any classroom, except for preschool. In this case the education kept going distantly and the break for face-to face education was 14 days. As the rate of vaccination among teachers increased, the duration of distant education lowered to 5 days on condition that the positive cases recovered. As of November 21, 2021, it was announced by MoNE that the vaccination rate among teachers was 93% (Ministry of National Education, 2021).

2.3.2. The effect of Restrictions on Tertiary Level in Turkey

After the covid-19 outbreak was declared and accepted as a pandemic, like in many countries in the world, universities in Turkey were closed and initiated the distance education process in both undergraduate and postgraduate programs. CoHE expected the universities to make their online education either synchronous or asynchronous, however the synchronous one was encouraged more. In all higher education institutions in Turkey,

face-to-face education suspended for 3 weeks as of March 16, 2020. Until the beginning of 2021-2022 Academic year, universities kept going the distance education except for partly in applied courses (Council of Higher Education, 2021). In that period, universities started to develop their distance education servers, organize all the units in their institutions to keep their courses online synchronous. Almost all the theoretical courses have been taught by online education (Tosun, 2021). This process also emerged the need for professional support to academicians and students and the institutions overcame this issue by guiding their clients through different channels such as guide sheets, explanatory videos, etc. In the beginning of 2021-2022 academic year, as the availability of vaccination and the rate of vaccinated people increased in community, CoHE authorized all the universities to continue their education distantly or face-to-face. Because the progress of pandemic may change from one region to another, universities would decide the type of instruction. The fall semester of 2021-2022 academic year universities mostly taught face to face depending on the infection situation in classroom contexts (Council of Higher Education, 2021).

2.3.3. Pandemic's effect on research in postgraduate level (theses and dissertations)

Distant education has not only affected the theoretical/pedagogical outputs or inputs of education, but it has also affected studies conducted. The effect of pandemic on research in postgraduate level can be inferred by regarding theses and dissertations published in pre (2019) and while (2020, 2021) pandemic years.

Table 2.8. Frequencies of theses and dissertations published in 2019, 2020 and 2021

Department of	2019	2020	2021	Total
1 English Language Teaching	162	142	126	430
2 English Teacher Education	6	4	2	12
3 Teaching English as a Foreign Language	7	13	4	24
4 Foreign Languages Education	193	112	118	423
5 Teaching Foreign Language	8	2	3	13
6 Foreign Languages	19	6	7	32
7 Secondary Education Foreign Languages Teaching	0	0	0	0
Total	395	279	260	934

As demonstrated in Table 2.8., considering theses and dissertations in CoHE National Thesis Center database, in 2019 there were published 392 theses and dissertations in the fields related to ELT, whereas, in the 2020 and 2021 years, 252 and 280 theses and dissertations were published respectively in the same fields. It can be stated that the reason why the number of theses and dissertations numbers decreased was due to the pandemic and distance education. Because of closed educational institutions including state/private

K-12 schools and universities, studies, for instance, in the school context including case studies, conducting ethnographic inquiries, longitudinal studies, survey-based research, etc., were interrupted due to online educations and restrictions affecting social life (DeMatthews et al., 2020). Moreover, the freshmen in post-graduate education may have difficulty in reaching samples, conducting a questionnaire and all the components of conducting research. This may have led them to change their research subjects, which may have made a negative effect on scientific research (Dörnyei, 2007).

Regarding only frequencies of theses and dissertations pre and while pandemic does not give enough clues about the effect of pandemic on research. Hence, more detailed analysis on the theses and dissertations needs to be made, accordingly this study adopts to conduct more comprehensive analysis to find out deeper findings.

2.4. Related studies

In Turkey and foreign countries, there have been several similar studies conducted in the field of ELT. These studies focused mostly on few aspects of the research, while there has been a holistic study conducted on many sections of theses. However, there have been several gaps in the literature related to the aim of this study:

1. Theses and dissertations written pre and while pandemic have not been analyzed yet,
2. The methodology section of theses and dissertations has not been studied holistically,
3. The sample size has not been enough comparing with the year interval of the studies.

In this part, related studies conducted in Turkey and abroad were summarized and interpreted. At first, in their qualitative study, Tavsancil et al. (2012) aimed to investigate the post-graduate studies in the Institute of Educational Sciences. By conducting the content analysis method, they involved 666 master's theses and 186 doctoral dissertations via stratified sampling method. The results of their study showed that post-graduate studies mostly were conducted at the primary school level and data mostly collected from students. Doctoral dissertations mostly studied academic achievement, whereas, in master's theses, opinions of teachers and students were researched. One of the most important results of their study related to hereby study was survey-based research design mostly used in post-graduate research.

Kırmızı (2012) conducted a study on 212 theses written between the years 2005-2010 to find out the research trends in ELT and which university the most theses are written. In

his content analysis study, he found that (1) the most frequently investigated research trend in ELT was language skills, the second one was the teaching method, and the third trend was psychology and language; (2) Hacettepe University was the university with the most thesis written.

As for the foreign studies, firstly, Carter (2012) surveyed 52 master's degree theses written in 2008-2010 by using the content analysis method, in Canada. She tried to analyze the studies in terms of their research methods, instruments, and statistical analyses, etc. The results revealed that the quantitative method was the most preferred research method; interviews and surveys were the most popular data collection instrument researchers preferred; in all the studies, descriptive statistics were used, and t-tests were the most common inferential test; the average number of references cited in theses was 80 and the average number of pages was 134.

In another study conducted on theses, Özmen et al. (2016) examined 137 doctoral dissertations related to ELT written between the years 2010-2014. In his meta-analysis study, he based his research on four aspects including subject areas, design, sampling method, and setting of the studies. The results showed that most studied subject areas were teaching English as a foreign language-related topic such as teaching language skills, learners and teachers, document analysis the use of language, etc.; the most used research paradigm was quantitative research design; the most used sampling methods were purposive or convenient sampling.

Yağız et al. (2016) reviewed 274 selected ELT-based research articles retrieved from 15 journals in the ULAKBIM database by adopting convenient sampling method. In their content analysis study, they implemented 'Article Classification Form' trying to find out the descriptive analysis of subjects, research design, data collection tools, samples, and data analyses of the studies. The results demonstrated that in the Turkish ELT context, researchers mostly used the quantitative research method, interested in language teaching and learning, group range of the studies was 101-300, and mostly used data analysis method was descriptive statistics.

In the study, which examined 54 post-graduate theses on textbooks written between 2001 and 2003, Şimşek and Dündar (2017) conducted their study through the content analysis method to reveal several aspects of the theses. Findings related to the subject of this study revealed that after the mixed-method approach wasn't used mainly and qualitative studies were mainly based on document analysis of textbooks; some sample groups such as parents, publishers, school administrators, and publishers couldn't be involved in the samples of the studies at desired level or not; while descriptive analysis generally

contrasted learners and instructors views towards similar categorical patterns; innovative and experimental studies never conducted and multivariate analyses never implemented in the theses.

Another descriptive study examined the abstract sections of the studies related to ELT in Turkish Journal Park Academic (Dergi Park Akademik) with the sample of 234 research articles. In their qualitative study, Cesur et al. (2018) revealed that researchers did not state mostly data analysis, sampling type, and the design of research in the abstract sections of their studies. They also found out that language teaching, curriculum, teacher education, and teaching materials were the topics mostly researched. Besides, according to the findings of their study, purposive and random sampling were mostly used sampling types and the recommendations studies were mostly integrated into the conclusion part.

Şişman et al. (2019) chose randomly and reviewed 270 studies from 1156 theses and dissertations written in 1999-2018, in the field of ELT. Adopting the document analysis technique, they aimed to analyze the trends studied, sample size the studies included, methods used, and the number of universities having studies in the field. The results of their study showed that researchers mostly studied the topic '*vocabulary*'; of all 63 universities having post-graduate education on ELT, İhsan Doğramacı Bilkent University had the most studies conducted ($f=104$); the participants generally ranged between 31-60; the mostly adopted research method was the mixed method.

Demir (2020) investigated 302 postgraduate studies including 58 doctoral dissertations and 244 master's theses on foreign language teaching education in Turkey written in 1987-2017. He based his study on actor technique-perspective. In his study he aimed to analyze the studies in terms of category, topic, setting, university and institute, language, methodology, finding, interpretation, conclusion, and suggestion. In addition, the methodology sections of the studies were analyzed regarding some subsections such as research method/design, sample, data collection instrument. One can find a great many results from his holistic study; but the results concerning this current study in terms of methodological aspects of theses have revealed that qualitative method, experimental design, quantitative method, survey-based design, and mixed-method were the most used designs and methods in all the studies. Another finding of his study showed that learners, instructors, and documents/sources were used as the study sample. As for the data collection instrument, his study found out that the most used tools were questionnaires, tests, interviews, and scales.

Lastly, findings related to the content of the studies demonstrated that the mostly studied topics in the theses and dissertations were second language teaching, second language learning, second language education, motivation, primary education, student

achievement, teaching methods, computer-assisted foreign language teaching, speaking skills, drama concepts.

In their bibliometric study, Yorulmaz and Aydoğdu (2021) conducted a study on theses published by researchers from 16 public research universities to investigate the differentiation in numbers before and during pandemic. In their bibliometric designed study, their scope was all the theses and dissertations published in 2019 and 2021. The results of the study revealed that the number of master's theses and doctoral dissertations decreased 21k to 8k, about 60.8%, in research universities.

Yavuz et al. (2021) aimed to reveal the profile of studies for distance education activities in the pandemic period. In their content analysis and bibliometric analysis study, they picked 220 studies from the database of Web of Science to analyze them regarding their methodology, sampling data collection and analysis. The results reported that the studies mostly were conducted by university students and the mostly adopted method was quantitative research method. Questionnaire was the mostly implemented data collection tool and descriptive-quantitative analysis method was the mostly preferred data analysis type. They, also, concluded that in the pandemic period about distance education were mostly co-authored studies.

Finally, Topal et al. (2021) analyzed the studies published in Web of Science database in the field of distance education. In their bibliometric study, they aimed to investigate the effect of the pandemic on the studies related to distance education by focusing on researchers, publication, journal, institution, and country criteria using citation analysis. In the light of the findings of the study, they resulted that the pandemic has brought distant education a new vision.

CHAPTER III

3. METHODOLOGY

This chapter focuses on the methodological aspect of the study covering the purpose of the study and research questions, philosophical worldview, research design, sample and setting, data collection tool and procedure, and data analysis.

3.1. Philosophical Worldview

In the literature there are four main worldviews as (1) post positivism, (2) constructivism, (3) transformative, (4) pragmatic. Philosophical worldview has an influence on researchers in deciding the practical procedures of a research (Creswell & Creswell, 2018). The *constructivist worldview* mainly shaped the researcher's theoretic and practical planning processes for this study. Constructivists or social constructivists place emphasis on individuals' views because they would really like to know more about the world in which they live and work. Thus, researchers, in their studies, care their participants' ideas. They mostly adopt qualitative research methods rather than quantitative (Creswell & Creswell, 2018).

3.2. Research Design

An analysis of ELT researchers' methodological tendencies of the theses and dissertations published in 2019, 2020 and 2021 was the main purpose of the study. To achieve the main purpose, document analysis as a qualitative research method was mainly adopted. The rationale lies behind adopting qualitative document analysis method is that documents provide stable, exact and coverage set of data which researcher cannot intervene a sample in the collection process (Bowen, 2009). That is, by adopting qualitative document analysis method, the individual choices of researchers as they conduct their studies can be explored without any interpretation and intervention. This led this study to enhance its reliability in terms of its objectivity.

In this study, the document analysis method took advantages of content analysis method. The content analysis enables researchers to observe human behavior indirectly through oral or written sources (Fraenkel et al., 2015). The content analysis is a systematic and scientific research method enabling researchers to unfold a fact objectively which

needs to be clarified; its systematicity and objectivity makes a study replicable and valid (Krippendorff, 2004). Moreover, content analysis is a method which can involve both quantitative and qualitative methods (White & Marsh, 2006). Even though, the data were collected qualitatively in data collection procedure and analyzed quantitatively, the mainly implemented methods were on the axis of qualitative research method. Regarding the overall methods, the research design of this study was *qualitative descriptive study design*. This design's main purpose is to provide a complete overview of specific events that people, or groups of individuals have encountered and by adopting it a researcher can involve interviews, open-ended questions, observations, and documents, etc. (Lambert & Lambert, 2012).

3.3. Sample and Setting

The sample of the study consisted of master's theses and doctoral dissertations published in ELT. The theses and dissertations were conducted by 934 non-native ELT master's and doctorate students from 40 public and foundation universities in Turkey and published in 2019, 2020 and 2021 (See appendix 3). The sample included all the theses and dissertations of the research universe. The data were collected from the beginning October 2021 till the end of February 2022 by accessing the theses and dissertations in the CoHE Thesis Center database was used as the data source. Because the theses and dissertations were accessible online, the researcher didn't need to visit CoHE thesis archive in Ankara.

To obtain the theses, "Detailed Search" engine was operated by (1) choosing division related to English language education, (2) choosing access type as authorized, and (3) choosing the year interval between 2019 and 2021 (See Appendix 2). In the database seven different division are available included by English language education programs. These programs are sorted as *English Language Education (ELT)*, *English Teacher Education (ETE)*, *Teaching English as a Foreign Language (TEFL)*, *Foreign Languages (FL)*, *Foreign Language Education (FLE)*, *Foreign Language Teaching (FLT)*, *Secondary Foreign Language Education (SFLE)*. Because "Foreign Languages" related divisions contain German and French language departments, the language of the theses and dissertations published in those departments are filtered as in English so as not to take mistakenly other theses and dissertations related to other foreign languages.

Table 3.1. The sample of the study

Department of	Type	2019 <i>f</i>	2020 <i>f</i>	2021 <i>f</i>	Total <i>f</i>
	MA	140	123	113	376

English Language Teaching	Ph.D.	22	19	13	54
	Total	162	142	126	430
Foreign Languages Education	MA	170	87	98	355
	Ph.D.	23	25	20	68
	Total	193	112	118	423
Foreign Languages	MA	19	4	7	30
	Ph.D.	0	2	0	2
	Total	19	6	7	32
Teaching English as a Foreign Language	MA	7	12	4	23
	Ph.D.	0	1	0	1
	Total	7	13	4	24
Teaching Foreign Language	MA	7	2	3	12
	Ph.D.	1	0	0	1
	Total	8	2	3	13
English Teacher Education	MA	5	3	2	10
	Ph.D.	1	1	0	2
	Total	6	4	2	12
Secondary Education Foreign Languages Teaching	MA	0	0	0	0
	Ph.D.	0	0	0	0
	Total	0	0	0	0
Total	MA	348	231	227	806
	Ph.D.	47	48	33	128
	Total	395	279	260	934

As deciding on the sampling, the researcher adopted *purposive sampling* as a non-probability sampling method. Purposive sampling is a kind of sampling method that a researcher prefers a group of population depending on his/her personal judgement or prior knowledge (Fraenkel et al., 2015). In this study, the researcher thought that as a subfield of social sciences and applied linguistics respectively, ELT studies were mostly conducted in educational contexts, which was affected by the pandemic in a large extent. Therefore, the theses and dissertations in the field of ELT was included as the sample of this study. As demonstrated in Table 3.1., the sample consisted of 806 master's theses and 128 doctoral dissertations, in total 934 theses and dissertations were included in the study (See Appendix 4).

3.4. Data Collection

3.4.1. Instrument

To collect data, the researcher formed an excel worksheet for each year both for master's theses and doctoral dissertations. At the end of formation of the worksheets, six different excel worksheets were formed out as *2019 MA*, *2019 Ph.D.*; *2020 MA*, *2020 Ph.D.*; *2021 MA*, *2021 Ph.D.*



Figure 3.1. Main and sub-criteria for data collection

As mentioned before, the theses and dissertations were analyzed by focusing on eight different criteria as *research method*, *design*, *data collection instrument*, *data analysis*, *sampling method*, *sample group*, *sample size* and *data analysis software*. Within these criteria, there were some sub-criteria ($f=100$). For instance, under the criteria *sampling type* there were 10 sampling types as *criterion sampling*, *saturation sampling*, *convenience sampling*, *purposive sampling*, *random sampling*, *snowball sampling*, *quota sampling*, *maximal variation sampling*, *cluster sampling* ($f=9$). Figure 3.1. demonstrates all the main and sub-criteria analyzed in this study.

Figure 3.2. Screenshot-1 from the data collection excel sheet

	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	AA	AB	AC	AD	AE	AF	AG	AH	AI	AJ	AK	AL	AM	AN	AO	AP	AQ	AR	AS	AT	AU	AV	AW	AX	AY	AZ	BA	BB	BC	BD	BE	BF	BG	BH	BI	BJ	BK	BL	BM	BN	BO	BP	BQ	BR	BS	BT	BU	BV	BW	BX	BY	BZ	CA	CB	CC	CD	CE	CF	CG	CH	CI	CJ	CK	CL	CM	CN	CO	CP	CQ	CR	CS	CT	CU	CV	CW	CX	CY	CZ	DA	DB	DC	DD	DE	DF	DG	DH	DI	DJ	DK	DL	DM	DN	DO	DP	DQ	DR	DS	DT	DU	DV	DW	DX	DY	DZ	EA	EB	EC	ED	EE	EF	EG	EH	EI	EJ	EK	EL	EM	EN	EO	EP	EQ	ER	ES	ET	EU	EV	EW	EX	EY	EZ	FA	FB	FC	FD	FE	FF	FG	FH	FI	FJ	FK	FL	FM	FN	FO	FP	FQ	FR	FS	FT	FU	FV	FW	FX	FY	FZ	GA	GB	GC	GD	GE	GF	GG	GH	GI	GJ	GK	GL	GM	GN	GO	GP	GQ	GR	GS	GT	GU	GV	GW	GX	GY	GZ	HA	HB	HC	HD	HE	HF	HG	HH	HI	HJ	HK	HL	HM	HN	HO	HP	HQ	HR	HS	HT	HU	HV	HW	HX	HY	HZ	IA	IB	IC	ID	IE	IF	IG	IH	II	IJ	IK	IL	IM	IN	IO	IP	IQ	IR	IS	IT	IU	IV	IW	IX	IY	IZ	JA	JB	JC	JD	JE	JF	JG	JH	JI	IJ	JK	KL	KM	KN	KO	KP	KQ	KR	KS	KT	KU	KV	KW	KX	KY	KZ	LA	LB	LC	LD	LE	LF	LG	LH	LI	LJ	LK	LM	LN	LO	LP	LQ	LR	LS	LT	LU	LV	LW	LX	LY	LZ	MA	MB	MC	MD	ME	MF	MG	MH	MI	MJ	MK	ML	MM	MN	MO	MP	MQ	MR	MS	MT	MU	MV	MW	MX	MY	MZ	NA	NB	NC	ND	NE	NF	NG	NH	NI	NJ	NK	NL	NM	NN	NO	NP	NQ	NR	NS	NT	NU	NV	NW	NX	NY	NZ	OA	OB	OC	OD	OE	OF	OG	OH	OI	OJ	OK	OL	OM	ON	OO	OP	OQ	OR	OS	OT	OU	OV	OW	OX	OY	OZ	PA	PB	PC	PD	PE	PF	PG	PH	PI	PJ	PK	PL	PM	PN	PO	PP	PQ	PR	PS	PT	PU	PV	PW	PX	PY	PZ	QA	QB	QC	QD	QE	QF	QG	QH	QI	QJ	QK	QL	QM	QN	QO	QP	QQ	QR	QS	QT	QU	QV	QW	QX	QY	QZ	RA	RB	RC	RD	RE	RF	RG	RH	RI	RJ	RK	RL	RM	RN	RO	RP	RQ	RR	RS	RT	RU	RV	RW	RX	RY	RZ	SA	SB	SC	SD	SE	SF	SG	SH	SI	SJ	SK	SL	SM	SN	SO	SP	SQ	SR	SS	ST	SU	SV	SW	SX	SY	SZ	TA	TB	TC	TD	TE	TF	TG	TH	TI	TJ	TK	TL	TM	TN	TO	TP	TQ	TR	TS	TT	TU	TV	TW	TX	TY	TZ	UA	UB	UC	UD	UE	UF	UG	UH	UI	UJ	UK	UL	UM	UN	UO	UP	UQ	UR	US	UT	UU	UV	UW	UX	UY	UZ	VA	VB	VC	VD	VE	VF	VG	VH	VI	VJ	VK	VL	VM	VN	VO	VP	VQ	VR	VS	VT	VU	VV	VW	VX	VY	VZ	WA	WB	WC	WD	WE	WF	WG	WH	WI	WJ	WK	WL	WM	WN	WO	WP	WQ	WR	WS	WT	WU	WV	WW	WX	WY	WZ	XA	XB	XC	XD	XE	XF	XG	XH	XI	XJ	XK	XL	XM	XN	XO	XP	XQ	XR	XS	XT	XU	XV	XW	XX	XY	XZ	YA	YB	YC	YD	YE	YF	YG	YH	YI	YJ	YK	YL	YM	YN	YO	YP	YQ	YR	YS	YT	YU	YV	YW	YX	YY	YZ	ZA	ZB	ZC	ZD	ZE	ZF	ZG	ZH	ZI	ZJ	ZK	ZL	ZM	ZN	ZO	ZP	ZQ	ZR	ZS	ZT	ZU	ZV	ZW	ZX	ZY	ZZ				
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Figure 3.3. Screenshot-2 from the data collection excel sheet

To save time and researcher's energy, data were coded while collecting them. In each worksheet there were columns including sequence number, thesis/dissertation number, title, and department; and rows including main criteria and sub-criteria. Figure 3.2. and Figure 3.3. are the screenshot of the excel worksheet as data collection tool. Even though in the literature there was a form to classify research papers (Sözbilir et al., 2012), the researcher first intended to implement it; however, using such kind of form could be more

time-consuming. That's why, more researcher-friendly instrument was needed. The researcher followed up the mentioned classification form, updated and formed the excel sheet by which the data were able to be coded while collecting them.

3.4.2. Procedure

3.4.2.1. Pilot Study

Before collecting the data for the main study, the researcher conducted a pilot data collection with 271 theses and dissertations. Researchers, within the scope of this study, chose the design of their studies and apparently depended their methodological review on different authors or sources. Research design, for instance, may range from one source to another. While an author stated research designs in a common sense such as *descriptive, observational, experimental design*; another may range it more detail as, *narrative, phenomenological, survey-based design, explanatory-sequential mixed method design* etc. On the other hand, some researchers some sub criteria for data analysis may be conceptualized differently by researchers. To illustrate, one researcher preferred *dependent-samples t-test* while another used the term *paired-samples t-test* for the same calculation type.

Because of the terminological differentiations and diversity, at the end of the pilot study, 146 different sub-criteria were emerged (See Appendix 4). Analyzing a great number of criteria could have led to reduce the validity and the reliability of this study. Thus, after taking the opinions of two experts who were professors in ELT, overlapping criteria due to conceptualization difference were combined; criteria with very low frequency were classified as "other ...". Before starting the main study, the number of sub-criteria was reduced to 100 (See Appendix 5).

3.4.2.2. Main Study

After conducting the pilot study, main data collection procedure started. The researcher downloaded all the theses and dissertations and sorted them regarding their types (MA, Ph.D.), the year of publication (2019, 2020, 2021) and the division of ELT department (ELT, FLE, ETE, TFL, TEFL, FL). The theses and dissertations examined one-by-one. The researcher collected the data by using the excel worksheet. As shown, the worksheet contained the main criteria in written form, but did not include the sub-criteria in writing, but instead in numbers. Thus, the data collection process was carried out by also using a table containing all the sub-criteria within numbers. Abstracts were the first parts to be examined. Because abstracts mostly contained the very brief methodological aspect of research, before moving on to the method section, examining the abstract was something

like doing icebreaking, which made the process of collecting detailed data in the methodology section much easier. After getting the basic methodological information from the abstract part, the next step was to examine the methodology chapter. In the methodology chapter, design, sample, data collection, data analysis sections were the ones spent the most time to collect data. In a certain number of theses and dissertations, the data related to *data analysis* criteria were not included in the methodology chapter. Instead, researchers preferred to mention about data analysis process below the *findings* chapter. A few researchers, moreover, mentioned some methodological aspects in the *conclusion* chapter. Hence, in addition to examining the abstract and methodology chapters, the findings chapter of the theses and dissertations were examined sometimes; and conclusion chapters were checked out in a few cases. Following aforementioned procedure, the data from the total number of the master's theses (f=806) and doctoral dissertations (f=128) were collected and coded simultaneously. Data collection processes for both pilot and main study were carried out by implementing Microsoft Office Excel 16.0 software.

3.4. Data analysis

Collected data were organized for data analysis for getting frequencies, mean scores and percentages of each sub-criteria. All frequencies were added up and separate tables were made for each main criterion. Descriptive statistics was adopted as the main analysis method for this study. In data analysis, descriptive statistics allow researchers to use the collected numerical data as a useful strategy to summarize and make clear the available data and provide a description of the research sample (Fisher & Marshall, 2009). Microsoft Office Excel 16.0 software was used for data analysis, to get the sum frequencies and percentages of each sub-criteria.

CHAPTER IV

4. FINDINGS

In this chapter, findings for two main and eight sub-questions were presented with table interpretations. Instead interpreting all the details in the tables, significant points were emphasized. The significant points refer to (1) top lines of the tables, (2) overall evaluation of scores, (3) meaningful or linear increase or decrease in the usage of sub-criteria, (4) interpretations of important findings between master's theses and doctoral dissertations. The answer to the second research question is the overall findings of eight sub-questions.

4.1. Findings for What the Descriptive Statistics in terms of Frequencies and Percentages of Master's Theses and Doctoral Dissertations in ELT in 2019, 2020 and 2021 were

Research Question 1.: What were the frequencies and percentages of master's theses and doctoral dissertations in ELT in 2019, 2020 and 2021?

Table 4.1. Frequencies and percentages of theses and dissertations published in 2019, 2020 and 2021 in ELT in Turkey

		Year							
		2019		2020		2021		Total	
		<i>f</i>	%	<i>f</i>	%	<i>f</i>	%	<i>f</i>	%
Theses and dissertations in ELT	Type								
	MA	348	43.18	231	28.66	227	28.16	806	86.30
	Ph.D.	47	36.72	48	37.50	33	25.78	128	13.70
	Total	395	42.29	279	29.87	260	27.84	934	100

Table 4.1. demonstrates the overall frequencies and percentages of the total number of theses and dissertations published in three years. The total amount of the master's theses is 86.30% ($f=806$) and that of doctoral dissertations is 13.70% ($f=128$). While in 2019 the total amount of master's theses is 43.18% ($f=348$), in 2020 and 2021 they are 28.66% ($f=231$) and 28.16% ($f=227$) respectively. Doctoral dissertations' amounts, on the other hand, are 36.72% in 2019 ($f=47$), 37.50 in 2020 ($f=48$) and 25.75 in 2021 ($f=33$).

Regarding the total number of theses and dissertations, the number of master's theses drastically decreased from 395 to 279 and 260. On the contrary, in comparison with 2019 the number of doctoral theses increased from 47 to 48 in 2020; however, a downward trend is observed in 2021, it decreased from 48 to 33. The decrease in master's theses in 2020 and 2021 compared to 2019 is 33.62% and 34.77% respectively. The change in doctoral dissertations in 2020 and 2021 is +2.13% and -29.79% respectively.

According to table 4.1., findings for "*what the frequencies and percentages of master's theses and doctoral dissertations in ELT in 2019, 2020 and 2021 are*" revealed that even though the number of doctoral dissertations increased in 2020 compared to 2019, the overall trend in frequencies and percentages of master's theses and doctoral dissertations was downward.

4.2. Findings for How Master's Theses and Doctoral Dissertations Published in 2019 and 2020-2021 Differed Methodologically

Research Question 2.: How did the master theses and doctoral dissertations published pre and while pandemic differ methodologically?

The methodological difference can only be observed by exploring the main and sub-criteria which involved in the scope of this study. The answer to this research question answered with the overall evaluation of the tables at the end each of eight sub-questions.

4.2.1. Findings for How Master's Theses and Doctoral Dissertations Differed Regarding Research Method

Research Question 2.1.: How did master theses and doctoral dissertations differ regarding research method?

Table 4.2. Research methods of MA theses pre and while pandemic

Method	2019		2020		2021		Total	
	MA		MA		MA		MA	
	<i>f</i>	%	<i>f</i>	%	<i>f</i>	%	<i>f</i>	%
Mixed	191	54.62	120	52.36	125	55.07	436	54.09
Quantitative	75	21.68	71	30.47	46	20.26	192	23.82
Qualitative	50	14.45	29	12.45	48	21.15	127	15.76
Not Mentioned	32	9.25	11	4.72	8	3.52	51	6.33
Total	348	100	231	100	227	100	806	100

Table 4.2. indicates the researchers' trend in adopting a research method for conducting their master's theses. Regarding the overall adopted methods in master's theses ($f=806$), the mostly used method by researchers was mixed method with 54.09%

($f=436$), quantitative method was the second with 23.82% ($f=192$) and qualitative method was implemented by researchers with 15.76% ($f=127$). Besides in 6.33% ($f=51$) of master's theses, researchers did not mention about the method they adopted.

According to the table, of all the master's theses ($f=346$) in 2019, mixed method was adopted by researchers at a rate of 54.64%, in 2020 it was 52.36% and in 2021 it was at 55.07%. Quantitative method was implemented by researchers at 21.68% in 2019, 30.47% in 2020 and 20.26% in 2021. On the other hand, implementation of qualitative method in 2019 and 2020 was at the rate of 14.45% and 12.45% respectively, while in 2021 it increased to 21.15% which was a significant difference.

In addition, the fluctuation observed by years did not show a proportional change in the use of mixed method in 2019 and the fluctuation in 2020 was not in a systematic direction. However, while the usage of qualitative method in master's theses was close to each other in 2019 and 2020, it increased in 2021.

Table 4.3. Research methods of Ph.D. dissertations pre and while pandemic

Method	2019		2020		2021		Total	
	Ph.D.		Ph.D.		Ph.D.		Ph.D.	
	<i>f</i>	%	<i>f</i>	%	<i>f</i>	%	<i>f</i>	%
Mixed	30	63.83	28	58.33	17	51.52	75	58.59
Quantitative	8	17.02	2	4.17	4	12.12	14	10.94
Qualitative	6	12.77	15	31.25	8	24.24	29	22.66
Not Mentioned	3	6.38	3	6.25	4	12.12	10	7.8
Total	47	100	48	100	33	100	128	100

Table 4.3 demonstrates the researchers' trend in adopting a research method for conducting their doctoral dissertations. Regarding the overall adopted methods in doctoral dissertations ($f=128$), the mostly implemented method by Ph.D. candidates was mixed method at the rate of 58.59% ($f=75$), qualitative method was the second at 22.66% ($f=29$) and quantitative method was implemented by researchers at 10.94% ($f=14$). 7.8% ($f=10$) of doctorate candidates did not mention about the method they adopted.

Mixed method implementation rate among doctoral dissertations was 63.83% in 2019, it decreased 58.33% and 51.52% in 2020 and 2021 respectively. Researchers implemented qualitative method at 12.77% in 2019, at 31.25% in 2020 and at 24.24% in 2021. The usage of quantitative method by Ph.D. students was at the rate of 17.02% in 2019; it was 4.17% and 12.12% in 2020 and 2021 respectively.

According to table 4.2. and 4.3., findings for *“how master theses and doctoral dissertations differ regarding research method”* revealed that (1) the usage of the qualitative method implemented in master's theses increased while pandemic; (2) regarding doctoral

dissertations while mixed and quantitative method implementation trend decreased, qualitative method usage increased while pandemic.

4.2.2. Findings for How Master's Theses and Doctoral Dissertations Differed Regarding Research Design

Research Question 2.2.: How did master theses and doctoral dissertations differ regarding research design?

Table 4.4. Research designs of MA theses pre and while pandemic

Design	2019		2020		2021		Total	
	MA		MA		MA		MA	
	<i>f</i>	%	<i>f</i>	%	<i>f</i>	%	<i>f</i>	%
Experimental study	87	22.89	54	20.69	30	11.67	171	19.04
Descriptive Study	52	13.68	37	14.18	40	15.56	129	14.37
Case study	44	11.58	17	6.51	32	12.45	93	10.36
Explanatory sequential mixed method	29	7.63	18	6.90	29	11.28	76	8.46
Survey-based	10	2.63	25	9.58	17	6.61	52	5.79
Concurrent mixed method	16	4.21	7	2.68	18	7.00	41	4.57
Correlational study	10	2.63	22	8.43	13	5.06	45	5.01
Corpus-based	9	2.37	4	1.53	7	2.72	20	2.23
Exploratory sequential mixed method	5	1.32	6	2.30	5	1.95	16	1.78
Conversation analysis	1	0.26	6	2.30	4	1.56	11	1.22
Action research study	5	1.32	2	0.77	1	0.39	8	0.89
Phenomenological study	3	0.79	1	0.38	6	2.33	10	1.11
Embedded mixed method	0	0.00	4	1.53	1	0.39	5	0.56
Content / Document analysis	4	1.05	1	0.38	5	1.95	10	1.11
Ethnography study	1	0.26	0	0.00	4	1.56	5	0.56
Grounded theory study	1	0.26	2	0.77	1	0.39	4	0.45
Meta analysis	2	0.53	1	0.38	1	0.39	4	0.45
Other	4	1.05	3	1.15	2	0.78	9	1.00
Not Mentioned	97	25.53	51	19.54	41	15.95	189	21.05
TOTAL	380	100	261	100	257	100	898	100

Table 4.4. points out the research designs chosen for the master's theses pre and while pandemic. Regarding all the master's theses pre and while pandemic, the total number of designs ($f=898$) exceeded the total number of master's theses ($f=806$), because some researchers adopted more than one research design in their theses. Within these

designs ($f=898$), the most frequently used ones were experimental study design at the rate of 19.04% ($f=171$) and descriptive study designs at 14.37% ($f=129$). Considering overall theses, 380 different research designs were implemented out of total number of master's theses in 2019 ($f=346$); the mostly used ones were experimental at the rate of 22.89% ($f=87$) and descriptive study design at 13.68% ($f=52$). In 2020 and 2021, the design which had the highest frequency and percentage were experimental design at 20.69% ($f=54$) and 11.67% ($f=30$) respectively and descriptive study design at 14.18% ($f=37$) and 15.56% ($f=40$) respectively.

Table 4.4. shows that while the implementation of experimental study design decreased from the rate of 22.89% in 2019 to 20.69% in 2020 and to 11.67% in 2021, descriptive study design usage increased from the rate of 13.68% in 2019 to 14.18% in 2020 and to 15.56% in 2021. Moreover, the rate of the theses in which the implementation of research design did not mention decreased over years; in 2019 at 25.53%, in 2020 at 19.54% and in 2021 at 15.95%. The other study designs were in the trend of neither upward nor downward.

Table 4.5. Research designs of Ph.D. dissertations pre and while pandemic

Design	2019		2020		2021		Total	
	Ph.D.		Ph.D.		Ph.D.		Ph.D.	
	<i>f</i>	%	<i>f</i>	%	<i>f</i>	%	<i>f</i>	%
Experimental study	8	15.38	1	18.33	4	10.53	23	15.33
Case study	6	11.54	9	15.00	6	15.79	21	14.00
Explanatory sequential mixed method	7	13.46	9	15.00	4	10.53	20	13.33
Descriptive Study	4	7.69	4	6.67	2	5.26	10	6.67
Concurrent mixed method	3	5.77	4	6.67	2	5.26	9	6.00
Exploratory sequential mixed method	1	1.92	3	5.00	2	5.26	6	4.00
Action research study	1	1.92	1	1.67	4	10.53	6	4.00
Embedded mixed method	4	7.69	1	1.67	1	2.63	6	4.00
Survey-based	4	7.69	0	0.00	1	2.63	5	3.33
Corpus-based	2	3.85	2	3.33	1	2.63	5	3.33
Correlational study	1	1.92	0	0.00	3	7.89	4	2.67
Conversation analysis	1	1.92	2	3.33	1	2.63	4	2.67
Ethnography study	1	1.92	2	3.33	1	2.63	4	2.67
Grounded theory study	0	0.00	1	1.67	1	2.63	2	1.33
Phenomenological study	2	3.85	0	0.00	0	0.00	2	1.33
Content / Document analysis	0	0.00	0	0.00	0	0.00	0	0.00
Meta analysis	0	0.00	0	0.00	0	0.00	0	0.00
Other	0	0.00	4	6.67	4	10.53	8	5.33
Not Mentioned	7	13.46	7	11.67	1	2.63	15	10.00

TOTAL	5 2	100	6 0	100	3 8	100	15 0	100
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Table 4.5. shows the research designs preferred by researchers for their doctoral dissertations pre and while pandemic. As in master's theses, the number of the implementation of research designs ($f=150$) is higher than the total number of doctoral dissertations ($f=128$) in 2019, 2020 and 2021, due to the multiple usage of designs in some dissertations. The mostly adopted research designs pre and while pandemic were experimental study design ($f=23$) at the rate of 15.33%, case study design ($f=21$) at 14.00%, explanatory sequential mixed method study design ($f=20$) at 13.33%.

In comparison with 2019, 2020 and 2021, case study design implementation among Ph.D. researchers increased from at the rate of 11.54%, to 15.00% and to 15.79%. Action research study design was at the rate of 1.92% in 2019, at 1.67% in 2020; and it increased to 10.53% in 2021. The other designs preferred by researchers were not in the trend of upward or downward. Besides the rate of the doctoral dissertations in which researchers did not mention about research design was at 13.46% in 2019, at 11.67% in 2020 and 2.63% in 2021.

Regarding Table 4.4. and 4.5., findings for “*how master theses and doctoral dissertations differ regarding research design*” revealed that (1) in master's theses the implementation of experimental study design tended to decrease while the usage of descriptive study design increased while pandemic period; (2) in doctoral dissertations case study design and action research design implementation trend was upward; (3) another finding is that the rate of those who do not mention design in their master's theses and doctoral dissertations decreased over the years.

4.2.3. Findings for How Master's Theses and Doctoral Dissertations Differed Regarding Data Collection Tool

Research Question 2.3.: How did master theses and doctoral dissertations differ regarding data collection tool?

Table 4.6. Instruments used in MA theses pre and while pandemic

Instrument	2019		2020		2021		TOTAL	
	MA		MA		MA		MA	
	<i>f</i>	%	<i>f</i>	%	<i>f</i>	%	<i>f</i>	%
Scales / Surveys	230	31.17	170	35.49	147	32.38	547	32.73
Interviews	205	27.78	115	24.01	138	30.40	458	27.41
Test / Task results	136	18.43	95	19.83	70	15.42	301	18.01

Checklists / Rubrics / Tables	74	10.03	18	3.76	27	5.95	119	7.12
Open Ended Questions / Surveys	26	3.52	17	3.55	17	3.74	60	3.59
Video / Audio recordings	15	2.03	14	2.92	18	3.96	47	2.81
Reflection Papers	14	1.90	12	2.51	8	1.76	34	2.03
Field / Observation Notes	8	1.08	11	2.30	12	2.64	31	1.86
Journals	9	1.22	14	2.92	4	0.88	27	1.62
Diaries	7	0.95	3	0.63	5	1.10	15	0.90
Portfolios	3	0.41	1	0.21	1	0.22	5	0.30
Smart watch	0	0.00	0	0.00	1	0.22	1	0.06
Other documents	11	1.49	9	1.88	6	1.32	26	1.56
Total	738	100	479	100	454	100	1671	100
The number of theses	348		231		227		934	
Mean scores of instruments in each year	2.12		2.07		2.00		2.07	

Table 4.6. indicates the frequencies and percentages of data collection tools implemented by master's degree students in their theses pre and while pandemic. Regarding overall instruments ($f=1671$) in all the theses, the mostly frequently used ones were scales/surveys at the rate of 32.73% ($f=547$), interviews at 27.41% ($f=458$) and test/task results at 18.01% ($f=301$). The mean scores of instrument implementation by years were in 2019: $M = 2.12$; in 2020: $M = 2.07$; in 2021: $M = 2.00$.

Regarding the sub-criteria of instrument, the usage of video/audio recordings increased from at the rate of 2.03% in 2019 to 2.92% in 2020 and to 3.96% in 2021. Field / observation notes implementation also increased from 1.08% in 2019 to 2.30% in 2020 and to 2.64% in 2021. Although the increase was slight, the usage rate of open-ended questions/surveys increased by 2019, 2020 and 2021 ($3.52\% > 3.55\% > 3.74\%$).

Table 4.7. Instruments used in Ph.D. dissertations pre and while pandemic

Instrument	2019		2020		2021		TOTAL	
	Ph.D.		Ph.D.		Ph.D.		Ph.D.	
	<i>f</i>	%	<i>f</i>	%	<i>f</i>	%	<i>f</i>	%
Interviews	30	25.21	57	35.40	21	20.59	108	28.27
Scales / Surveys	32	26.89	29	18.01	19	18.63	80	20.94
Test / Task results	24	20.17	21	13.04	23	22.55	68	17.80
Checklists / Rubrics / Tables	11	9.24	11	6.83	5	4.90	27	7.07
Field / Observation Notes	5	4.20	9	5.59	6	5.88	20	5.24
Reflection Papers	7	5.88	5	3.11	4	3.92	16	4.19
Journals	4	3.36	6	3.73	6	5.88	16	4.19

Video / Audio recordings	2	1.68	6	3.73	6	5.88	14	3.66
Open Ended Questions / Surveys	2	1.68	7	4.35	3	2.94	12	3.14
Diaries	1	0.84	3	1.86	3	2.94	7	1.83
Portfolios	0	0.00	1	0.62	2	1.96	3	0.79
Smart watch	0	0.00	0	0.00	0	0.00	0	0.00
Other documents	1	0.84	6	3.73	4	3.92	11	2.88
Total	119	100	161	100	102	100	382	100
The number of dissertations	47		48		33		128	
Mean scores of instruments in each year	2.53		3.35		3.09		2.98	

Table 4.7. indicates the frequencies and percentages of data collection instruments used in doctoral dissertations pre and while pandemic. Regarding overall instrument usage, ($f=382$) the most frequently used instruments by doctorate students were interviews at the rate of 28.27% ($f=108$), scales/surveys at 20.94% ($f=80$), and test/task results at 17.80% ($f=68$). The mean scores of data collection tool implementation by years were in 2019: $M = 22.53$; in 2020: $M = 3.35$; in 2021: $M = 2.98$.

The implementation rate of scales/surveys was 26.89% in 2019 among researchers while it reduced to 18.01% in 2020 and 18.63% in 2021. Checklists/rubrics/table usage as data collection tool reduced from the rate of 9.24% in 2019 to 6.83% in 2020 and 4.92% in 2021. Additionally, there was an increase in the rate of video/audio recordings usage that it increased from 1.68% in 2019 to 3.73% in 2019 and to 5.88% in 2021.

According to Table 4.6. and Table 4.7., findings for “*how master theses and doctoral dissertations differ regarding data collection tool*” revealed that (1) regarding the mean scores of instrumentations in master’s theses and doctoral dissertations, the usage of instrument decreased in master’s theses while pandemic whereas no linear increase or decrease was observed in the data collection tool trend in doctoral theses, (2) the means scores showed that the number of tools used in doctoral theses was higher than master’s theses, (3) in master’s theses the implementation trend in *video/audio recordings*, *field/observation notes* and *open-ended questions/surveys* was upward while pandemic (4) in doctoral dissertations, the usage of scales/surveys and checklists/rubrics/table as data collection tools was in downward trend while video/audio recordings implementation trend was upward.

4.2.4. Findings for How Master’s Theses and Doctoral Dissertations Differed Regarding Data Analysis Methods / Calculations

Research Question 2.4.: How did master theses and doctoral dissertations differ regarding data analysis method/calculations?

A subsumed answer to research question 2.4 stated right after table 4.17, the findings obtained the tables can be found at the bottom of each table.

Table 4.8. Data analysis methods adopted in MA theses pre and while pandemic

Data analysis method	2019		2020		2021		TOTAL	
	MA		MA		MA		MA	
	<i>f</i>	%	<i>f</i>	%	<i>f</i>	%	<i>f</i>	%
Quantitative data analysis	715	72.66	587	74.68	490	66.94	1792	71.62
Qualitative data analysis	269	27.34	199	25.32	242	33.06	710	28.38
Total	984	100	786	100	732	100	2502	100
The number of theses	348		231		227		806	
Mean scores of data analysis methods in each year	2.82		3.40		3.22		3.10	

Table 4.8. demonstrates the frequencies and percentages of the qualitative and quantitative data analysis methods implemented in master's theses pre and while pandemic. According to the table, of all the data analysis methods ($f=2502$), quantitative data analysis methods was used at the rate of 71.62% ($f=1792$) while qualitative data analysis methods were implemented 28.38% ($f=710$). The mean scores of data analysis methods implemented by researchers in their theses by years were in 2019: $M = 2.82$; in 2020: $M = 3.40$; in 2021: $M = 3.22$. According to table 4.8, the diversity of data analysis methods in theses increased while pandemic compared to pre pandemic.

Table 4.9. Qualitative data analysis techniques implemented in MA theses pre and while pandemic

Qualitative analysis	2019		2020		2021		Total	
	MA		MA		MA		MA	
	<i>f</i>	%	<i>f</i>	%	<i>f</i>	%	<i>f</i>	%
Content/Thematic Content/Document/Discourse Analysis	135	50.19	113	56.78	126	52.07	374	52.68
Axial/Open Coding/Categorizing/Theming	103	38.29	66	33.17	100	41.32	269	37.89
Descriptive Analysis	22	8.18	12	6.03	8	3.31	42	5.92
Inductive Qualitative Analysis	5	1.86	4	2.01	1	0.41	10	1.41
Constant Comparative Method	2	0.74	2	1.01	3	1.24	7	0.99
Interpretative Phenomenological Analysis	1	0.37	0	0.00	1	0.41	2	0.28
Collective Case Study Analysis	0	0.00	0	0.00	2	0.83	2	0.28
Grounded Theory Analysis	1	0.37	0	0.00	0	0.00	1	0.14
Multilayered Analytic Method	0	0.00	1	0.50	0	0.00	1	0.14

Contrastive Rhetoric Analysis	0	0.00	1	0.50	0	0.00	1	0.14
Acoustic Analysis Technique	0	0.00	0	0.00	1	0.41	1	0.14
Total	269	100	199	100	242	100	710	100

Table 4.9. shows the usage of qualitative analysis methods used in master's theses pre and while pandemic in terms of their frequencies and percentages. The sub-criteria *Content/Thematic Content/ Document/Discourse Analysis* as qualitative analysis method was used by researchers at 52.68% ($f=374$) regarding overall qualitative methods ($f=710$). The second mostly implemented method by master's students was *Axial/Open Coding/Categorizing/Theming* at the rate of 37.89% ($f=269$). The other methods were preferred to be implemented at the rate of 9.30%. According to table 4.9, there was no linear increase or decrease in using the qualitative data analysis methods in master's theses pre and while pandemic.

Table 4.10. Quantitative data analysis types implemented in MA theses pre and while pandemic

Quantitative Data Analysis	2019		2020		2021		TOTAL	
	MA		MA		MA		MA	
	<i>f</i>	%	<i>f</i>	%	<i>f</i>	%	<i>f</i>	%
Inferential Statistics	481	67.27	420	71.55	341	69.59	1242	69.31
Descriptive Statistics	234	32.73	167	28.45	149	30.41	550	30.69
Total	715	100	587	100	490	100	1792	100

Table 4.10. demonstrates the types of statistics implemented in master's theses pre and while pandemic. In overall statistics implemented in the theses ($f=1792$), inferential statistics were used at the rate of 69.31% ($f=1242$) while descriptive statistics were used 30.61% ($f=550$). According to table 4.10, there was no linear increase or decrease in using the types of statistics in master's theses pre and while pandemic.

Table 4.11. Inferential statistic tests implemented in MA theses pre and while pandemic

Inferential Statistics	2019		2020		2021		TOTAL	
	MA		MA		MA		MA	
	<i>f</i>	%	<i>f</i>	%	<i>f</i>	%	<i>f</i>	%
Parametric	328	68.19	284	67.62	219	64.22	831	66.91
Non-parametric	114	23.70	89	21.19	90	26.39	293	23.59
Parametric/Non-parametric	39	8.11	47	11.19	32	9.38	118	9.50
Total	481		420		341		1242	

Table 4.11. indicates the frequencies and percentages of the types of inferential statistics implemented in master's theses in 2019, 2020 and 2021. The researchers having tendency in using inferential statistics in their theses used the *parametric tests* at the rate of 66.91% ($f=831$), *non-parametric tests* 23.59% ($f=293$) regarding overall number of statistics ($f=1242$). The usage of parametric tests in master's theses was 68.19% in 2019, and it decreased to 67.62% in 2020 and to 64.22% in 2021. That is, according to Table 4.11., the trend in researcher's implementation of parametric tests was downward while pandemic.

Table 4.12. Parametric and non-parametric tests implemented in MA theses pre and while pandemic

Inferential Statistics	2019		2020		2021		TOTAL	
	MA		MA		MA		MA	
	<i>f</i>	%	<i>f</i>	%	<i>f</i>	%	<i>f</i>	%
Independent Samples T-test	114	23.70	97	23.10	78	22.87	289	23.27
ANOVA	70	7.11	74	9.41	70	9.56	214	17.23
Correlation	77	16.01	76	18.10	49	14.37	202	16.26
Paired Samples T-test	68	14.14	41	9.76	23	6.74	132	10.63
Mann Whitney U-Test	42	8.73	32	7.62	34	9.97	108	8.70
Kruskal Wallis H-Test	29	6.03	27	6.43	25	7.33	81	6.52
Factor Regression	23	4.78	27	6.43	15	4.40	65	5.23
	16	3.33	20	4.76	17	4.99	53	4.27
Wilcoxon Signed Rank Test	18	3.74	14	3.33	15	4.40	47	3.78
Chi-Square	17	3.53	6	1.43	8	2.35	31	2.50
Friedman	5	1.04	3	0.71	5	1.47	13	1.05
ANCOVA	2	0.42	3	0.71	2	0.59	7	0.56
Total	481	100	420	100	341	100	1242	100

Table 4.12. demonstrates the usage of inferential statistics test types by master's degree researchers pre and while pandemic. Of all the inferential statistics tests ($f=1242$), the most frequently implemented ones were *independent samples t-test*, *ANOVA*, *correlation analysis*, and *paired samples t-test* at the rates of 23.27% ($f=289$), 17.23% ($f=214$), 16.26% ($f=202$), and 10.63% ($f=10.63$) respectively.

ANOVA usage in theses was at the rate of 7.11% in 2019, it increased to 9.41% in 2020 and 9.56% in 2021. The implementation of Kruskal Wallis H-test increased from the rate of 6.03% in 2019, to 6.43% in 2020 and to 7.33% in 2021. Besides, regression analysis

was used in master's theses 3.33% in 2019, 4.76% in 2020 and 7.33% in 2021. On the other hand, Paired samples t-test implementation by MA researchers decreased from 14.14% in 2019, to 9.76% in 2020 and to 6.74% in 2021.

According to table 4.12., there were linear increases and decreases in the implementation of inferential statistics test in master's theses. The usage trend in ANOVA, Kruskal Wallis H-test and regression analysis was upward; nevertheless, paired samples t-test implementation trend was downward while pandemic in comparison with pre pandemic.

Table 4.13.. Data analysis methods adopted in Ph.D. dissertations pre and while pandemic

Data Analysis	2019		2020		2021		TOTAL	
	Ph.D.		Ph.D.		Ph.D.		Ph.D.	
	<i>f</i>	%	<i>f</i>	%	<i>f</i>	%	<i>f</i>	%
Quantitative Data Analysis	126	72.00	118	59.60	86	64.18	330	65.09
Qualitative Data Analysis	49	28.00	80	40.40	48	35.82	177	34.91
Total	175	100	198	100	134	100	507	100
The number of theses	47		48		33		128	
Mean scores of data analysis methods in each year	3.72		4.12		4.06		3.96	

Table 4.13. indicates the frequencies, percentages and mean scores of the qualitative and quantitative data analysis methods implemented in doctoral dissertations pre and while pandemic. According to the table, of all the data analysis methods ($f=507$), quantitative data analysis methods was implemented at the rate of 65.09% ($f=330$) while qualitative data analysis methods were implemented 34.91% ($f=177$). The mean scores of data analysis methods implemented by researchers in their dissertations by years were in 2019: $M = 3.72$; in 2020: $M = 4.12$; in 2021: $M = 4.06$. According to table 4.13, the number of different data analysis methods used in doctoral dissertations increased while pandemic compared to pre pandemic.

Table 4.14. Qualitative data analysis techniques implemented in Ph.D. dissertations pre and while pandemic

	2019		2020		2021		Total	
	Ph.D.		Ph.D.		Ph.D.		Ph.D.	
	<i>f</i>	%	<i>f</i>	%	<i>f</i>	%	<i>f</i>	%
Qualitative analysis								

Content/Thematic Content/ Document/ Discourse Analysis	27	55.10	35	43.75	21	43.75	83	46.89
<i>Axial/Open Coding/ Categorizing/ Theming</i>	17	34.69	27	33.75	17	35.42	61	34.46
Descriptive Analysis	1	2.04	5	6.25	5	10.42	11	6.21
Grounded Theory Analysis	0	0.00	4	5.00	4	8.33	8	4.52
Inductive Qualitative Analysis	3	6.12	4	5.00	1	2.08	8	4.52
Constant Comparative Method	0	0.00	5	6.25	0	0.00	5	2.82
Interpretative Phenomenological Analysis	1	2.04	0	0.00	0	0.00	1	0.56
Multilayered Analytic Method	0	0.00	0	0.00	0	0.00	0	0.00
Collective Case Study Analysis	0	0.00	0	0.00	0	0.00	0	0.00
Contrastive Rhetoric Analysis	0	0.00	0	0.00	0	0.00	0	0.00
Acoustic Analysis Technique	0	0.00	0	0.00	0	0.00	0	0.00
Total	49	100	80	100	48	100	177	100

Table 4.14. indicates the usage of qualitative analysis methods used by researchers in their doctoral dissertations pre and while pandemic in terms of their frequencies and percentages. The sub-criteria *Content/Thematic Content/ Document/Discourse Analysis* as qualitative analysis method was used by researchers at 46.89% ($f=83$) regarding overall qualitative methods ($f=177$) and it reduced from the rate of 55.10% in 2019 to the rate of 43.75% in 2020 and to 43.75% in 2021. The second mostly implemented method doctoral dissertations was *Axial/Open Coding/Categorizing/Theming* at the rate of 34.46% ($f=61$). Descriptive analysis method usage was 2.04% ($f=1$) in 2019, while it increased to 6.25 ($f=5$) in 2020 and to 10.42 ($f=11$) in 2021. *Grounded theory* implementation by Ph.D. students was not used in 2019 at all, but it was used at the rate of 5.00% in 2020 and increased to 8.33% in 2021. In addition, inductive qualitative analysis method implementation by researchers was at 6.12% in 2019, at 5.00% in 2020 and reduced at 2.08% in 2021. According to table 4.14, the trend in using the *descriptive analysis* and *grounded theory analysis methods* by doctorate students were upward while the implementation of inductive qualitative analysis was downward.

Table 4.15. Quantitative data analysis types implemented in Ph.D. dissertations pre and while pandemic

	2019	2020	2021	TOTAL
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Quantitative Data Analysis	Ph.D.		Ph.D.		Ph.D.		Ph.D.	
	<i>f</i>	%	<i>f</i>	%	<i>f</i>	%	<i>f</i>	%
Inferential Statistics	95	75.40	83	70.34	64	74.42	242	73.33
Descriptive Statistics	31	24.60	35	29.66	22	25.58	88	26.67
Total	126	100	118	100	86	100	330	100

Table 4.15. demonstrates the types of statistics used by researchers in their doctoral dissertations pre and while pandemic. regarding overall statistics implemented in dissertations ($f=330$), inferential statistics were used at the rate of 73.33% ($f=242$) while descriptive statistics were used 26.67% ($f=88$). According to table 4.15, there was no linear increase or decrease in using the types of statistics used in dissertations.

Table 4.16. Inferential statistic tests implemented in Ph.D. dissertations pre and while pandemic

	2019		2020		2021		TOTAL	
	Ph.D.		Ph.D.		Ph.D.		Ph.D.	
Inferential Statistics	<i>f</i>	%	<i>f</i>	%	<i>f</i>	%	<i>f</i>	%
Parametric	51	53.68	44	53.01	44	68.75	139	57.44
Non-parametric	29	30.53	26	31.33	7	10.94	62	25.62
Parametric/Non-parametric	15	15.79	13	15.66	13	20.31	41	16.94
Total	95	100	83	100	64	100	242	100

Table 4.16. shows the frequencies and percentages of the types of inferential statistics implemented in doctoral dissertations pre and while pandemic. The researchers having tendency in using inferential statistics in their dissertations used the *parametric tests* at the rate of 57.44% ($f=139$), *non-parametric tests* 25.62% ($f=41$) regarding overall number of statistics ($f=242$). Besides, there's a significant increase in parametric test implementation rate; while it was 53.68% in 2019 and 53.01% in 2020, it increased to the rate of 68.75% in 2021.

Table 4.17. Parametric and non-parametric tests implemented in Ph.D. dissertations pre and while pandemic

	2019		2020		2021		TOTAL	
	Ph.D.		Ph.D.		Ph.D.		Ph.D.	
Inferential Statistics	<i>f</i>	%	<i>f</i>	%	<i>f</i>	%	<i>f</i>	%
ANOVA	19	10.85	14	7.07	14	10.44	47	19.42
Correlation	19	20.00	13	15.66	11	17.19	43	17.77

Independent Samples T-test	6	6.32	10	12.05	13	20.31	29	11.98
Factor	8	8.42	10	12.05	6	9.38	24	9.92
Paired Samples T-test	7	7.37	8	9.64	5	7.81	20	8.26
Mann Whitney U-Test	8	8.42	9	10.84	1	1.56	18	7.44
Regression	7	7.37	3	3.61	7	10.94	17	7.02
Wilcoxon Signed Rank Test	6	6.32	7	8.43	3	4.69	16	6.61
Kruskall Wallis H-Test	8	8.42	4	4.82	1	1.56	13	5.37
ANCOVA	3	3.16	3	3.61	1	1.56	7	2.89
Chi-Square	2	2.11	1	1.20	1	1.56	4	1.65
Friedman	2	2.11	1	1.20	1	1.56	4	1.65
Total	95	100	83	100	64	100	242	100

Table 4.17. demonstrates the implementation of inferential statistics tests in doctoral dissertations pre and while pandemic. Of all the inferential statistics tests ($f=242$), the most frequently implemented ones were *ANOVA*, *correlation analysis* and *independent samples t-test* at the rates of 19.42% ($f=47$), 17.77% ($f=43$), 11.98% ($f=29$) respectively. The implementation of *independent samples t-test* in doctoral dissertations increased from the rate of 6.32% in 2019, to 12.15% in 2020 and to 20.31% in 2021. According to table 4.17, the implementation trend of independent samples t-test in doctoral dissertations was upward while pandemic in comparison with pre pandemic.

Findings for “*how master theses and doctoral dissertations differ regarding data analysis methods*” revealed that (1) According to table 4.8., the diversity of data analysis methods in master’s theses increased while pandemic compared to pre pandemic, (2) to table 4.11., the trend in researcher’s implementation of parametric tests was downward in master’s theses while pandemic, (3) to table 4.12., the usage trend in ANOVA, Kruskal Wallis H-test and regression analysis was upward; nevertheless, paired samples t-test implementation trend was downward while pandemic in comparison with pre pandemic in master’s theses, (4) to table 4.13., the number of different data analysis methods used in doctoral dissertations increased while pandemic compared to pre pandemic, (5) to table 4.14., the trend in using the *descriptive analysis* and *grounded theory analysis methods* by doctorate students were upward while the implementation of *content/thematic content/document/discourse analysis* and *inductive qualitative analysis* were downward, (6) to table 4.16., implementation of parametric tests in doctoral dissertations increased in 2021, (7) to table 4.17., the implementation trend of independent samples t-test in doctoral dissertations was upward while pandemic in comparison with pre pandemic.

4.2.5. Findings for How Master's Theses and Doctoral Dissertations Differed Regarding Sampling Method

Research Question 2.5.: How did master theses and doctoral dissertations differ regarding sampling method?

Table 4.18. Sampling methods adopted in MA theses pre and while pandemic

Sampling Method	2019		2020		2021		Total	
	MA		MA		MA		MA	
	<i>f</i>	%	<i>f</i>	%	<i>f</i>	%	<i>f</i>	%
Convenience	115	31.51	101	42.62	93	40.09	309	37.05
Purposive	44	12.05	35	14.77	42	18.10	121	14.51
Random	31	8.49	19	8.02	11	4.74	61	7.31
Snowball	7	1.92	5	2.11	6	2.59	18	2.16
Criterion	8	2.19	3	1.27	3	1.29	14	1.68
Quota	0	0.00	4	1.69	4	1.72	8	0.96
Maximal Variation	3	0.82	1	0.42	1	0.43	5	0.60
Cluster	4	1.10	2	0.84	0	0.00	6	0.72
Saturation	2	0.55	1	0.42	0	0.00	3	0.36
Not Mentioned	151	41.37	66	27.85	72	31.03	289	34.65
Total	365	100	237	100	232	100	834	100

Table 4.18. indicates types of sampling methods adopted by researchers in their master's degree pre and while pandemic. The frequency of sampling method ($f=834$) usage exceeded in the number of total master's theses ($f=806$), because in some theses, researchers used multiple samples to carry out their studies. Regarding overall number of sampling methods used in master's theses, convenience and purposive sampling method were the mostly implemented ones with the rates of 37.05% and 14.51% respectively. The rate of the ones who did not mention about the sampling type in the sampling procedure was at 34.65% ($f=289$).

The rate of using convenience sampling method in master's theses rose from 31.51% in 2019 to 42.62% in 2020 and 40.09% in 2021. Purposive sampling implementation rate increased from 12.05% in 2019 to 14.77% in 2020 and 18.10% in 2021. However, random sampling implementation rate decreased from 8.49% in 2019 to 8.02% in 2020 and to 4.74% in 2021.

Table 4.19. Sampling methods adopted in Ph.D. dissertations pre and while pandemic

Sampling Method	2019		2020		2021		Total	
	Ph.D.		Ph.D.		Ph.D.		Ph.D.	
	<i>f</i>	%	<i>f</i>	%	<i>f</i>	%	<i>f</i>	%

Convenience	18	33.96	22	41.51	12	32.43	52	36.36
Purposive	15	28.30	13	24.53	10	27.03	38	26.57
Random	2	3.77	3	5.66	3	8.11	8	5.59
Snowball	3	5.66	1	1.89	2	5.41	6	4.20
Criterion	2	3.77	2	3.77	2	5.41	6	4.20
Quota	0	0.00	0	0.00	0	0.00	0	0.00
Maximal Variation	0	0.00	1	1.89	2	5.41	3	2.10
Cluster	1	1.89	0	0.00	1	2.70	2	1.40
Saturation	0	0.00	0	0.00	0	0.00	0	0.00
Not Mentioned	12	22.64	11	20.75	5	13.51	28	19.58
Total	53	100	53	100	37	100	143	100

Table 4.19. shows types of sampling methods used by researchers in their doctoral dissertations pre and while pandemic. The total frequency of sampling method ($f=143$) implementation exceeded in the number of total doctoral dissertations ($f=128$) in 2019, 2020 and 2021, because some Ph.D. researchers implemented multiple samples to carry out their studies and mentioned multiple sampling methods in their studies. Regarding overall number of sampling methods used in doctoral dissertations, convenience and purposive sampling method were the mostly implemented ones with the rates of 36.36% and 26.57% respectively. The rate of the researchers who did not mention about the sampling type in the sampling procedure was at 19.58% ($f=143$). The rate of implementation of random sampling increased from 3.77% in 2019 to 5.66% in 2020 and to 8.11% in 2021.

According to table 4.18. and 4.19., findings for “*how master theses and doctoral dissertations differ regarding sampling method*” revealed that (1) great number of researchers did not mention about sampling method in their master’s theses and doctoral dissertations; however, the rate was higher in the former, (2) the usage trend of convenience and purposive sampling methods was upward in master’s theses, (3) random sampling implementation trend was downward in master’s whereas in doctoral dissertations this trend was upward while pandemic.

4.2.6. Findings for How Master’s Theses and Doctoral Dissertations Differed Regarding Sample Group

Research Question 2.6.: How did master theses and doctoral dissertations differ regarding sample group?

Table 4.20. Sample group chosen for MA theses pre and while pandemic

Sample Group	2019		2020		2021		Total	
	MA		MA		MA		MA	
	<i>f</i>	%	<i>f</i>	%	<i>f</i>	%	<i>f</i>	%

Prep School/University EFL Learners	120	29.63	83	31.09	72	27.48	275	29.44
Prep School EFL Instructors	49	12.10	43	16.10	43	16.41	135	14.45
K-12 EFL Teachers	50	12.35	39	14.61	43	16.41	132	14.13
Pre-Service EFL Teachers/ELT Students	45	11.11	26	9.74	19	7.25	90	9.64
Materials/Books/Corpora/ Documents	27	6.67	11	4.12	25	9.54	63	6.75
High School EFL Learners	34	8.40	18	6.74	13	4.96	65	6.96
Middle School EFL Learners	35	8.64	19	7.12	9	3.44	63	6.75
Primary School EFL/Young Learners	12	2.96	5	1.87	6	2.29	23	2.46
ELT Teacher Trainers	7	1.73	2	0.75	3	1.15	12	1.28
ESP EMI Learners/Students	2	0.49	2	0.75	1	0.38	5	0.54
ESP EMI Instructors/Professors	1	0.25	4	1.50	2	0.76	7	0.75
School Administrators	4	0.99	2	0.75	1	0.38	7	0.75
ELT Postgraduate Students	1	0.25	1	0.37	3	1.15	5	0.54
Other English Language Department Students	3	0.74	2	0.75	0	0.00	5	0.54
Private Course Instructors/Teachers	1	0.25	1	0.37	2	0.76	4	0.43
Mixed K-12 Learners	1	0.25	1	0.37	1	0.38	3	0.32
Other EFL Learners	7	1.73	6	2.25	8	3.05	21	2.25
Other Samples	6	1.48	2	0.75	11	4.20	19	2.03
Total	405	100	267	100	262	100	934	100

Table 4.20. indicates master's degree researchers' sample group choice in their theses pre and while pandemic. Regarding the overall sample choice in theses ($f=934$), the mostly recruited samples were prep school/university EFL learners, prep school EFL instructors, K-12 EFL teachers, and pre-service EFL teachers/ELT students at the rate of 29.44% ($f=275$), 14.45% ($f=135$), 14.13% ($f=132$), and 9.64% ($f=90$) respectively. The selection of prep school EFL instructors as sample in master's theses in 2019 was at the rate of 12.10%, it increased to 16.10% in 2020 and to 16.41% in 2021. K-12 EFL teachers were recruited as sample in theses at 12.35% in 2019, at 14.61% in 2020 and at 16.41% in 2021. Materials/books/corpora/ documents selection as sample was at 6.67% in 2019, 4.12% in 2020 and, despite the non-linear upward, it increased to 9.54% in 2022. On the other hand, although the decrease was not linear, prep school/university EFL learners' recruitment as the research sample was 29.63% in 2019 and 31.09% in 2020; it decreased to 27.49% in 2022. Pre-service EFL teachers were involved in master's theses as sample at the rate of 11.11% in 2019, 9.74% in 2020 and 7.25% in 2022. The selection of high school EFL learners as research samples decreased from 8.40% in 2019 to 6.74% in 2020 and to 4.96% in 2021. Middle school EFL learners' selection as master's theses samples was 8.64% in 2019, it decreased to 7.12% in 2020 and to 3.44% in 2021.

Table 4.21. Sample group chosen for Ph.D. dissertations pre and while pandemic

Sample Group	2019		2020		2021		Total	
	Ph.D.		Ph.D.		Ph.D.		Ph.D.	
	<i>f</i>	%	<i>f</i>	%	<i>f</i>	%	<i>f</i>	%
Prep School/University EFL Learners	15	23.81	19	30.65	9	20.93	43	25.60
Pre-Service EFL Teachers/ELT Students	17	26.98	9	14.52	8	18.60	34	20.24
Prep School EFL Instructors	6	9.52	15	24.19	9	20.93	30	17.86
K-12 EFL Teachers	8	12.70	5	8.06	5	11.63	18	10.71
Materials/Books/Corpora/Documents	6	9.52	3	4.84	2	4.65	11	6.55
ELT Teacher Trainers	4	6.35	2	3.23	1	2.33	7	4.17
ESP EMI Learners/Students	1	1.59	2	3.23	1	2.33	4	2.38
Middle School EFL Learners	2	3.17	2	3.23	0	0.00	4	2.38
Primary School EFL/Young Learners	0	0.00	1	1.61	2	4.65	3	1.79
High School EFL Learners	1	1.59	0	0.00	2	4.65	3	1.79
ELT Postgraduate Students	1	1.59	0	0.00	2	4.65	3	1.79
ESP EMI Instructors/Professors	0	0.00	1	1.61	1	2.33	2	1.19
School Administrators	1	1.59	0	0.00	1	2.33	2	1.19
Other English Language Department Students	0	0.00	1	1.61	0	0.00	1	0.60
Private Course Instructors/Teachers	0	0.00	0	0.00	0	0.00	0	0.00
Mixed K-12 Learners	0	0.00	0	0.00	0	0.00	0	0.00
Other EFL Learners	0	0.00	0	0.00	0	0.00	0	0.00
Other Samples	1	1.59	2	3.23	0	0.00	3	1.79
Total	63	100	62	100	43	100	168	100

Table 4.21. demonstrates the sample group selection in doctoral dissertations pre and while pandemic. Considering overall sample choice in theses ($f=168$), the mostly selected samples were prep school/university EFL learners, pre-service EFL teachers/ELT students, prep school EFL instructors, and K-12 EFL teachers at the rates of 25.60% ($f=43$), 20.24% ($f=34$), 17.86% ($f=30$), and 10.71% ($f=18$) respectively. The selection of prep school EFL instructors as sample in doctoral dissertations in 2019 was at the rate of 9.52%, it increased to 24.19% in 2020 and to 20.93% in 2021. On the other hand, selection of pre-service EFL teachers/ELT students as research samples in doctoral dissertations decreased from 26.98% in 2019 to 14.52% in 2020 and to 18.60% in 2021; K-12 EFL teachers' rate decreased from 12.70% in 2019, to 8.06% in 2020 and to 11.63% in 2022 even though the downward was not linear; materials/books/corpora/documents' rate was 9.52% in 2019, it decreased to 4.65% and to 4.65% in 2020 and 2021 respectively; ELT teacher trainers' rate for sample group decreased from 6.35% in 2019 to 3.23% in 2020 and to 2.33% in 2022.

According to the tables 4.20 and 4.21, findings for “*how master theses and doctoral dissertations differ regarding sample group*” revealed that (1) master’s students’ trend in sample group choice was upward in prep school EFL instructors, K-12 EFL teachers, materials/books/corpora/documents whereas it was downward in high school EFL learners, middle school EFL learners, prep school/university EFL learners and pre-service EFL teachers; (2) doctorate researchers’ trend in sample group choice in their dissertations was upward in prep school EFL instructors whereas it was downward in choosing pre-service EFL teachers/ELT students, K-12 EFL teachers, materials/books/corpora/documents and ELT teacher trainers as a research sample.

4.2.7. Findings for How Master’s Theses and Doctoral Dissertations Differed Regarding Sample Size

Research Question 2.7.: How did master theses and doctoral dissertations differ regarding sample size?

Table 4.22. Numbers of participants (Sample size) in MA theses pre and while pandemic

Sample Size	2019		2020		2021		Total	
	MA		MA		MA		MA	
	<i>f</i>	%	<i>f</i>	%	<i>f</i>	%	<i>f</i>	%
Prep School/University EFL Learners	16906	43.26	11794	38.07	8683	37.85	37383	40.20
K-12 EFL Teachers	5010	12.82	5679	18.33	5407	23.57	16096	17.31
Pre-Service EFL Teachers/ELT Students	5319	13.61	2969	9.58	1981	8.64	10269	11.04
Prep School EFL Instructors	1825	4.67	3911	12.63	3143	13.70	8879	9.55
High School EFL Learners	3530	9.03	3465	11.19	1247	5.44	8242	8.86
Middle School EFL Learners	3679	9.41	1521	4.91	909	3.96	6109	6.57
Primary School EFL/Young Learners	830	2.12	268	0.87	179	0.78	1277	1.37
Other EFL Learners	498	1.27	316	1.02	424	1.85	1238	1.33
Materials/Books/Corpora/Documents	493	1.26	315	1.02	46	0.20	854	0.92
English Language Department Students	259	0.66	374	1.21	0	0.00	633	0.68
Mixed K-12 Learners	174	0.45	90	0.29	325	1.42	589	0.63
ESP EMI Learners/Students	76	0.19	123	0.40	59	0.26	258	0.28
ELT Teacher Trainers	174	0.45	5	0.02	96	0.42	275	0.30
ELT Postgraduate Students	59	0.15	17	0.05	46	0.20	122	0.13
ESP EMI Instructors/Professors	24	0.06	62	0.20	35	0.15	121	0.13
Private Course Instructors/Teachers	54	0.14	44	0.14	31	0.14	129	0.14
School Administrators	23	0.06	4	0.01	3	0.01	30	0.03

Other Samples	151	0.39	21	0.07	324	1.41	496	0.53
Total	3908 4	100	3097 8	100	2293 8	100	9300 0	100
The number of theses	438		231		227		806	
Mean scores of samples sizes by years	89.23		134.10		101.04		115.38	

Table 4.22. shows frequencies, percentages, and mean scores of the sample size in the master's theses pre and while pandemic. The mean scores of sample sizes in master's theses by years were in 2019: $M = 89.23$; in 2020: $M = 134.10$; in 2021: $M = 101.04$. The samples having linear increase or decrease were prep school/university EFL learners ($43.26\% > 38.07\% > 37.85\%$), K-12 EFL teachers ($12.82\% > 18.33\% > 23.57\%$), pre-service EFL teachers/ELT students ($13.61\% > 9.58\% > 8.64\%$), prep school EFL instructors ($4.67\% > 12.63\% > 13.70\%$), and middle school EFL learners ($9.41\% > 4.91\% > 3.96\%$).

Table 4.23. Numbers of participants (Sample size) in Ph.D. dissertations pre and while pandemic

Sample Size	2019		2020		2021		Total	
	Ph.D.		Ph.D.		Ph.D.		Ph.D.	
	<i>f</i>	%	<i>f</i>	%	<i>f</i>	%	<i>f</i>	%
Prep School/University EFL Learners	3645	35.17	2847 2	88.43	3078	49.51	3519 5	72.15
Pre-Service EFL Teachers/ELT Students	3985	38.45	654	2.03	695	11.18	5334	10.93
K-12 EFL Teachers	1325	12.78	773	2.40	221	3.55	2319	4.75
Prep School EFL Instructors	819	7.90	587	1.82	1715	27.59	3121	6.40
High School EFL Learners	35	0.34	0	0.00	50	0.80	85	0.17
Middle School EFL Learners	187	1.80	1144	3.55	0	0.00	1331	2.73
Primary School EFL/Young Learners	0	0.00	88	0.27	250	4.02	338	0.69
Other EFL Learners	0	0.00	0	0.00	0	0.00	0	0.00
Materials/Books/Corpora/Documents	86	0.83	51	0.16	7	0.11	144	0.30
English Language Department Students	0	0.00	78	0.24	0	0.00	78	0.16
Mixed K-12 Learners	0	0.00	0	0.00	0	0.00	0	0.00
ESP EMI Learners/Students	61	0.59	206	0.64	1	0.02	268	0.55
ELT Teacher Trainers	46	0.44	19	0.06	35	0.56	100	0.21
ELT Postgraduate Students	8	0.08	0	0.00	155	2.49	163	0.33
ESP EMI Instructors/Professors	0	0.00	5	0.02	6	0.10	11	0.02
Private Course Instructors/Teachers	0	0.00	0	0.00	0	0.00	0	0.00
School Administrators	4	0.04	0	0.00	4	0.06	8	0.02
Other Samples	163	1.57	122	0.38	0	0.00	285	0.58

Total	1036 4	100	3219 9	100	6217	100	4878 0	100
The number of theses	47		48		33		128	
Mean scores of samples sizes by years	220.51		670.81		188.39		381.09	

Table 4.23. demonstrates frequencies, percentages, and mean scores of the sample sizes in doctoral dissertations pre and while pandemic. The mean scores of sample sizes in doctoral dissertations by years were in 2019: $M = 220.51$; in 2020: $M = 670.81$; in 2021: $M = 188.39$. The samples having linear or significant increase or decrease in doctoral dissertations were pre-service EFL teachers/ELT students ($38.45\% > 2.03\% > 11.18\%$), K-12 EFL teachers ($12.78\% > 2.40\% > 3.55\%$), prep school EFL instructors ($7.90\% > 1.82\% > 27.59\%$).

According to the tables 4.22. and 4.23., findings for “*how master theses and doctoral dissertations differ regarding sample size*” revealed that (1) in master’s theses, K-12 EFL teachers and prep school EFL instructors selected as samples increased over the years whereas the numbers of prep school/university EFL learners, pre-service EFL teachers/ELT students, and middle school EFL learners decreased, (2) in doctoral dissertations, the numbers of pre-service EFL teachers/ELT students, K-12 EFL teachers as research samples decreased during the pandemic while and prep school EFL instructors increased, (3) according to another finding from these tables, the average number of participants recruited in doctoral dissertations was more than three times the average number of participants recruited in master's theses.

4.2.8. Findings for How Master’s Theses and Doctoral Dissertations Differed Regarding Data Analysis Software

Research Question 2.8.: How did master theses and doctoral dissertations differ regarding data analysis software?

Table 4.24. Data analysis software implemented in MA theses pre and while pandemic

Analysis Software	2019		2020		2021		Total	
	MA		MA		MA		MA	
	<i>f</i>	%	<i>f</i>	%	<i>f</i>	%	<i>f</i>	%
SPSS	260	71.04	186	74.10	152	59.61	598	68.58
Microsoft Excel	10	2.73	9	3.59	11	4.31	30	3.44
NVivo	10	2.73	6	2.39	8	3.14	24	2.75
MAXQDA	6	1.64	4	1.59	11	4.31	21	2.41
AMOS	4	1.09	3	1.20	0	0.00	7	0.80
Lisrel	0	0.00	1	0.40	1	0.39	2	0.23
AntConc	1	0.27	0	0.00	1	0.39	2	0.23

Atlas.Ti	1	0.27	0	0.00	2	0.78	3	0.34
Stata	1	0.27	1	0.40	2	0.78	4	0.46
Others	13	3.55	10	3.99	15	5.56	38	4.39
Not Mentioned	60	16.39	31	12.35	52	20.39	143	16.40
TOTAL	366	100	251	100	255	100	872	100

Table 4.24. demonstrates frequencies and percentages of data analysis software implemented in master's theses pre and while pandemic. Regarding overall software used in theses ($f=872$), the most frequently used software was SPSS (Statistical Package for Social Sciences) at the rate of 68.58% ($f=598$). The rate of the researchers who did not mentioned about any data analysis software in their master's theses was 16.40% ($f=143$). Besides, over years the usage of SPSS decreased ($2019=71.04\% > 2020=74.10\% > 2021=59.61\%$) while Microsoft excel, NVivo, MAXQDA increased ($2019=2.73\% > 2020=3.59\% > 2021=4.31\%$; $2019=2.73\% > 2020=2.39\% > 2021=3.14\%$; $2019=1.64\% > 2020=1.59\% > 2021=4.31\%$ respectively) although the trends of SPSS and NVivo and MAXQDA's trends were not linear.

Table 4.25. Data analysis software implemented in Ph.D. dissertations pre and while pandemic

Analysis Software	2019		2020		2021		Total	
	Ph.D.		Ph.D.		Ph.D.		Ph.D.	
	<i>f</i>	%	<i>f</i>	%	<i>f</i>	%	<i>f</i>	%
SPSS	34	56.67	31	52.54	19	47.50	84	52.83
NVivo	7	11.67	6	10.17	4	10.00	17	10.69
MAXQDA	3	5.00	4	6.78	3	7.50	10	6.29
Microsoft Excel	1	1.67	0	0.00	0	0.00	1	0.63
AMOS	0	0.00	2	3.39	1	2.50	3	1.89
Lisrel	3	5.00	1	1.69	1	2.50	5	3.14
AntConc	2	3.33	1	1.69	0	0.00	3	1.89
Atlas.Ti	0	0.00	1	1.69	0	0.00	1	0.63
Others	2	3.33	6	10.17	3	7.50	11	6.92
Not Mentioned	8	13.33	7	11.86	9	22.50	24	15.09
TOTAL	60	100	59	100	40	100	159	100

Table 4.25. demonstrates frequencies and percentages of data analysis software used by researchers in their doctoral dissertations pre and while pandemic. Regarding overall software implemented in the dissertations ($f=159$), the most frequently used software was SPSS, NVivo and MAXQDA at the rates of 52.83% ($f=84$), 10.69% ($f=17$) and 6.29% ($f=10$) respectively. The rate of the researchers who did not mentioned about any data analysis software in their dissertations was 15.09% ($f=24$). The implementation rate of SPSS ($2019=56.67\% > 2020=52.54\% > 2021=47.50\%$) and NVivo ($2019=11.67\% >$

2020=10.17% > 2021=10.00%) decreased over years. On the other hand, the usage of MAXQDA increased from the rate of 5.00% in 2019 to 6.78% in 2020 and to 7.50% in 2021.

According to the table 4.25. and Table 4.24., findings for how master theses and doctoral dissertations differ regarding data analysis software revealed that (1) the trend in the usage of SPSS in master's theses was downward while Microsoft Excel, NVivo and MAXQDA was upward; (2) in doctoral dissertations the implementation trend of SPSS and NVivo was downward while MAXQDA was upward. It should be noted that SPSS in master's theses was used more significantly than in doctoral dissertations. Also, in doctoral dissertations the usage of NVivo and MAXQDA was more than that of master's theses.



CHAPTER V

5. DISCUSSION

In this chapter, findings of this study were discussed in the axis of each research question. The findings, also, were discussed regarding the hypotheses of the researcher of this study and regarding studies in the literature.

5.1. Discussion on What the Descriptive Statistics in terms of Frequencies and Percentages of Master's Theses and Doctoral Dissertations in ELT in 2019, 2020 and 2021 were

According to the findings for the frequencies and percentages of master's theses and doctoral dissertations in ELT, the overall number of master's theses and doctoral dissertations published decreased while pandemic in comparison with pre-pandemic, despite the increase in doctoral dissertation in 2020. This was a finding consistent with Yorulmaz and Aydoğdu's (2021) study as they found the number of master's theses and doctoral dissertations decreased drastically in research universities in Turkey during the pandemic. As mentioned in the problem statement of this study, researchers conducting their master's theses and doctoral dissertations had to deal with Covid-19 which was an unknown phenomenon for everyone. Some researchers may have experienced psychological or physiological problems, which was a matter lowering the motivation of researchers in carrying out their studies. CoHE gave undergraduate and postgraduate students extra freeze right for their registration during the pandemic period, this could be another reason for the downward trend in writing their theses.

5.2. Discussion on How Master's Theses and Doctoral Dissertations published in 2019 and 2020-2021 Differed Methodologically

Overall findings of eight sub-questions showed that there were many methodological differentiations in the tendencies of master's and doctoral researchers in their theses and dissertations in ELT. Discussion to this research question was done in the following sub-questions.

5.2.1. Discussion on How Master's Theses and Doctoral Dissertations Differed Regarding Research Method

The results related to research methods revealed that the adoption trend of qualitative method approach in master's theses and doctoral dissertations increased while pandemic. Another significant finding was that in doctoral dissertations mixed and quantitative method implementation trend decreased. This may have led by the sampling choice of researchers because sampling in qualitative research does not require large numbers of participants, as the important phenomena in qualitative research focusing on affluent and diverse judgements of individuals. Besides, the representation of the sample group is one of the most important elements of quantitative research. (Dörnyei, 2007; Creswell & Creswell, 2018). On the other hand, although the scope of this study was not to reveal which method was mostly used during pandemic, the findings revealed that quantitative method was the mostly adopted method while pandemic. These findings were consistent with those of Yavuz et al. (2021) and Mishra et al. (2021) whose findings showed that the quantitative research method was mostly adopted method for the studies during the pandemic but they did not reveal an upward or downward trend in using methods.

5.2.2. Discussion on How Master's Theses and Doctoral Dissertations Differed Regarding Research Design

The findings related to research design showed that selection of descriptive study in master's theses and case study design and action research design in doctoral dissertations increased while pandemic. In addition, experimental study design selection in master's decreased while pandemic. That kind of fluctuation in research designing by years also indicates the increase in qualitative research designs, which shows the consistency in the findings of this current study related to research methods. These findings showed that the designs involving in methods and techniques requiring to carry out studies in physical environment were interrupted. As DeMatthews et al. (2020) also stated in their review article, Covid-19 pandemic did not let researchers to conduct their studies requiring ongoing education such as ethnographic studies, case studies, longitudinal studies, etc.

Another finding apart from the main purpose of this study demonstrated that the rate of those who did not mention research design in their master's theses and doctoral dissertations decreased over the years. Indicating that kind of methodological elements in studies increases comprehensibility by readers and reflects the quality of the study. The fact that the rate of studies referring to research design in doctoral dissertations was higher than master's theses showed the quality of doctoral dissertations in comparison to master's theses. Bourke & Holbrook (2013) also revealed doctoral dissertations had more quality

than master's theses in terms of effective application of approach/methodology. Approach and methodology's overall effectiveness of application includes the overall design of a study. That is, the prerequisite of an effective application of a paradigm or a design reflects having enough knowledge about them.

5.2.3. Discussion on How Master's Theses and Doctoral Dissertations Differed Regarding Data Collection Tool

The average number of instrument usage per master's thesis decreased during the pandemic. This might have been led by such factors caused by the pandemic as anxiety of researchers' finishing their theses, lower frequency of supervision, other psychological or physiological issues, etc. Another finding revealed that in both the master's theses and doctoral dissertations the implementation trends of researchers in *video/audio recordings as data collection tool* was upward. This indicated that upward of instrument usage trend was mostly observed in studies adopted qualitative research method. Because the data collection tools used in qualitative studies should be expected, naturally, tools that can collect qualitative data, this also demonstrates the consistency of one of the previous findings discussed above "*Discussion on how master theses and doctoral dissertations differed regarding research method*" which was during the pandemic the rate of qualitative research increased in term of the trend in adopting research method.

Another significant finding, apart from the scope of this study, was that instrument usage per study was higher in doctoral dissertations than in master's theses. Although Karadağ (2011) revealed that there were major deficiencies in instrumentation in doctoral dissertations published in Turkey, the multitude of usage of instrument per dissertation reflects the depth of doctoral studies against master's theses. This also shows the overall quality and profundity of doctoral dissertations as revealed in the study of Bourke & Holbrook (2013).

5.2.4. Discussion on How Master's Theses and Doctoral Dissertations Differed Regarding Data Analysis Methods / Calculations

According to the findings related to data analysis methods/calculations, multitude of data analysis methods in each master's thesis and doctoral dissertation increased while pandemic compared to pre pandemic. This finding showed that despite the decrease in numbers of theses and dissertations while pandemic, researchers made more in-depth analysis and calculations while working on their theses. This probably stemmed from researchers found more available *optimum context* for their research. Furthermore, in their research Sarah et al. (2021) argued that in spite of its difficulties, the pandemic affected

personal, work and research lives of researchers positively in terms of enabling a balanced context among them. Another finding revealed that the implementation of parametric tests in doctoral dissertations increased while pandemic. In previous studies the usage of parametric tests was also found as the mostly used test types in master's theses and doctoral dissertations because of those kind of tests' high reliabilities (Tavşancıl et al., 2010; Yılmaz et al., 2015). This finding on parametric and non-parametric was the proof of in-depth analysis again, which was the upward usage trend in ANOVA, Kruskal Wallis H-test, and regression analysis in master's theses. Although paired samples t-test implementation trend in master's theses decreased by years, the increase in the use of ANOVA, Kruskal Wallis H-test and regression analysis tests does not change the fact of increasing in-depth analysis in theses. Lastly, in doctoral dissertations the upward usage rate of the descriptive analysis, grounded theory analysis methods and independent samples t-test increased, which was another finding supporting the idea of in-depth analysis increase during the pandemic. This may have been because pandemic had positive effect on researchers' optimum context for research in some extent (Sarah et al., 2021).

5.2.5. Discussion on How Master's Theses and Doctoral Dissertations Differed Regarding Sampling Method

The findings related to sampling method showed that convenience and purposive sampling methods' implementation increased, and random sampling implementation method decreased in master's theses; however, its implementation in doctoral dissertations increased. These findings indicated that researchers did not prefer using non-probability sampling methods in their studies while pandemic. That is, researchers selected their samples regarding the conjuncture including pandemic. Researchers choose the convenience sampling in their studies as they want to select the sample considering such factors as the purpose of their studies, physical distance, accessibility, availability in time, etc. (Dörnyei, 2007). Another result apart from the main purpose of this study regarding sampling method, a great number of postgraduate students did not mention about sampling method they adopted in their master's theses and doctoral dissertations. Also, Maravelakis (2019) stated in his research that in many research sampling was not paid enough attention by researchers. Sholtz (2021) stated in her research that the reason why researchers did not mention about sampling method in their study might have been because journals did not require to mention about sampling. In a similar vein, the fact that master's and doctoral students did not mention about sampling method may have been since their supervisors did not make them reference to sampling method in their theses and dissertations.

However, researchers are suggested to state the sampling method in their studies, to make their methodological aspect clearer for readers (Creswell and Creswell, 2018).

5.2.6. Discussion on How Master's Theses and Doctoral Dissertations Differed Regarding Sample Group

Overall findings related to sample group recruited in master's theses revealed that prep school EFL instructors, K-12 EFL teachers, materials/books/corpora/documents recruitment as sample group increased while high school EFL learners, middle school EFL learners, prep school/university EFL learners and pre-service EFL teachers' recruitment as sample group decreased. Besides in doctoral dissertations the trend of sample choice was upward in prep school EFL instructors, but it was downward in pre-service EFL teachers/ELT students, K-12 EFL teachers, materials/books/corpora/documents and ELT teacher trainers as a research sample. The trend in the choice of sample group matched up with that of convenience sampling method, which was the mostly used method in the studies (Hultsch et al., 2002; Etikan et al., 2016; Zhao, 2020). Dörnyei (2007) stated that by convenience sampling method researchers recruit their target population regarding their closeness, availability, timesaving in reaching, etc. That is, the pandemic, due to the restrictions and distance education, made researcher recruit the most accessible and convenient sample group and made them drop the less accessible and convenient one.

Another finding apart from the main purpose of this study revealed that postgraduate researchers mostly selected their samples from prep school/university EFL learners. This may have been because postgraduate students mostly consisted of English Teachers in prep or K-12 schools, and they were taught in the faculty of education, they recruited the most convenient sample group for them. The selection of university students as sample group is also consistent with the finding related to sample group in Yavuz et al.'s (2021) study in which they found that university students were mostly selected as research sample in the pandemic.

5.2.7. Discussion on How Master's Theses and Doctoral Dissertations Differed Regarding Sample Size

Findings related to the sample size revealed that in master's theses, the numbers of K-12 EFL teachers and prep school EFL instructors as sample increased whereas the numbers of prep school/university EFL learners, pre-service EFL teachers/ELT students, and middle school EFL learners decreased during the pandemic. In addition, in doctoral dissertations the numbers of pre-service EFL teachers/ELT students, K-12 EFL teachers decreased whereas prep school EFL instructors as research samples increased during the

pandemic. That is, the rate of more convenient sample groups to the researchers increased whereas the less convenient ones decreased, which was consistent with conditions of the pandemic such as challenges in reaching sample groups, sample groups member's psychologic and physiologic problems, etc. (DeMatthews et al., 2020; Alghamdi, 2021). Because distance education and the restrictions made the numbers of K-12 EFL teachers and prep school EFL instructors more available comparing to middle school EFL learners and pre-service EFL teachers/ELT students. Although there was a contrast between master's and doctoral theses in the tendency of K-12 EFL teachers to be selected as sample groups, the fluctuation in master's theses was taken into consideration in discussion because its total number in master's theses was much more than that of doctoral dissertations.

Another finding apart from the comparison of pre and while pandemic in terms of sample size was that the average number of participants recruited per doctoral dissertation was more than approximately three times the average number of participants recruited per master theses. This indicates that doctorate researchers worked with more participants; that is, they collected, coded analyzed and interpreted more data than master's degree researchers. Doctoral dissertations appeared to have more quality in various aspects again comparing to master's theses (Durak et al., 2016; Wu & Paltridge, 2021; Li & Zang, 2021) What's more, Pallant (2016) suggests that researchers need to recruit more participants because of unexpected situations like participants' dropping out, unwillingness to complete the research tasks, etc. Doctoral students seemed, probably, to regard this advice.

5.2.8. Discussion on How Master's Theses and Doctoral Dissertations Differed Regarding Data Analysis Software

The findings related to data analysis software revealed that both in master's theses and doctoral dissertations, the implementation of SPSS decreased while that of MAXQDA increased during the pandemic. Besides, NVivo usage increased in master's theses during the pandemic. Nevertheless, another significant finding apart from the main aim of this study showed that in master's theses, SPSS was used more than in doctoral dissertations. Also, in doctoral dissertations the usage of NVivo and MAXQDA was more than that of master's theses. This finding implied that doctorate students, in the most general sense, used more different ways to analyze the data they collected. This may have been because they had more time to conduct their dissertations and it was expected to make more in-depth and comprehensive research comparing to master's degree students. Because the dissertation period cannot be less than three semesters in doctorate while it is two semesters in master's degree and doctoral dissertations are strongly suggested to be more qualified than master's

theses as mentioned. Moreover, because doctorate students gain self-confidence depending on their academic experience (Taymaz, 2021), this may lead them to be more open to learn new techniques and makes them feel free in using different software.



CHAPTER VI

6. CONCLUSIONS

In this chapter the summary of the study, and the conclusion of the general outcomes of this research were stated, and in the light of the conclusion, some important points were recommended to researchers.

6.1. Summary of the Study

The main purpose of this study was to explore the researchers' methodological tendencies pre and while pandemic regarding master's theses and doctoral dissertations published in 2019, 2020 and 2021. Namely, it tried to investigate whether there were significant changes in methodological elements in the master's theses and doctoral dissertations. In the review of literature chapter, research methodology, ELT in Turkey and pandemic's effect on education and research were reviewed. The researcher made use of the qualitative research methods and used content analysis method to find answers to two research questions with eight sub-questions. Theses and dissertations sampled by the researcher to examine within the scope of this research were 806 MA theses and 128 Ph.D. dissertations in the field of ELT. Data was collected by using a checklist including 8 main and 100 sub-criteria on Microsoft Excel worksheets. The coded data analyzed by using descriptive statistics including frequency, percentage, and mean score. After data analysis procedure, the findings of each research questions presented in the findings chapter and discussed in the discussion chapter. Lastly in this chapter the conclusion and recommendations were presented.

6.2. Conclusions

The effect of pandemic on researchers' tendencies in their master's theses and doctoral dissertations was observed in almost all criteria. It was also observed in the tendencies of many sub-criteria as linear upward or downward linear. In the light of the findings of the study, the main results of this study were summarized as follows:

2. The number of master's theses and doctoral dissertations published decreased,
3. Researchers' tendencies in adopting qualitative research method in master's theses and doctoral dissertations increased,

4. Researchers' design selection tendencies in master's theses and doctoral dissertations had an increase in qualitative research designs,
5. Researchers' multiple instrument usage tendencies in master's theses decreased in numbers,
6. Researchers' data analysis method/calculation usage tendencies in master's theses increased in numbers and they tended to make more in-depth analysis in their studies,
7. Researchers' tendencies in sampling methods choice in their master's theses and doctoral dissertations were in the direction of non-probability sampling method,
8. Researchers' tendencies in choosing more accessible and convenient sample groups (like prep school instructors) increased in both master's theses and doctoral dissertations,
9. The number of more convenient sample groups per years increased, that of less convenient ones decreased,
10. Researcher's tendencies in implementation of qualitative data analysis software increased while pandemic in comparison to pre-pandemic.

Besides, apart from the main purpose of the present study several significant findings were emerged that (1) some researchers did not mention about design, method, sampling method and data analysis software, especially the sampling method used in both master's theses and doctoral dissertations did not mention by huge number of researchers, (2) in doctoral dissertations multiple data collection tool usage, different types of analysis software usage, and the sample sizes were higher than those of master's theses; in methodological aspect doctoral dissertations had more quality than master's theses, (3) the mostly used, implemented, adopted or recruited sub-criteria were as followings:

- | | |
|---------------------------------------|---------------------------------------|
| 1. Research method | : Mixed |
| 2. Research Design | : Experimental |
| 3. Data Collection Tool | : Scales / Surveys |
| 4. Data Analysis Method / Calculation | : Descriptive Statistics |
| 5. Sampling Method | : Convenience |
| 6. Sample Group | : Prep School/University EFL Learners |
| 7. Sample Size | : Prep School/University EFL Learners |
| 8. Data Analysis Software | : SPSS |

To sum up, regarding the overall results of this study, the pandemic affected the researchers' tendencies mostly negatively and partly positively in the usage and implementation of methodological elements in their master's theses and doctoral

dissertations (DeMatthews et al., 2020; Yorulmaz & Aydoğdu, 2020; Yavuz et al., 2021; Topal et al., 2021; Alghamdi, 2021; Sarah et al., 2021).

6.2.1. Pedagogical Implications

Based on the findings and the conclusion, this study offers significant recommendations not only to the researchers in the field of ELT, but it also to the researchers in all the other fields at the master's and doctorate level in their academic studies. First, it was found that the Covid-19 pandemic had some negative effects on research. Thus, researchers should consider possible unexpected conditions while planning their research. It is a fact that pandemics were recorded rarely in history; however, in the last twenty years five different pandemics has been recorded and Covid-19 has been the one having most devastating effect (Huremović, 2019). As problems occurred during the pandemic, researchers may experience similar individual problems they have to deal with in their research process. So, it is strongly suggested to researchers that there should be B or C plans such as determining an alternative sample group, having an alternative or adaptable data collection instrument according to the conditions, etc.

Professors are also suggested to make *supportive meetings* with their supervisees to keep their motivation high in such kind of demotivating circumstances to diminish the devastating psychologic effects of unexpected situations. In addition, while such methodological elements as data collection and sampling are planned regarding face-to-face processes, since the pandemic has led researchers to collect data remotely / online, supervisor professors should guide their students to get used to this situation. In addition, supervisors should adjust themselves to these new methodological formations for their further studies. In other words, this period has begun to change the usual methodology, especially in terms of data collection and sampling (Ramlagan, 2021). Therefore, as researchers are getting used to these alterations, the supervisors should also consider this important issue, give direction to the researchers and evaluate the necessary ethical and quality issues in their studies together.

Beyond the results regarding the main purpose of study, supervisor professors are strongly recommended to make their supervised master's degree students carry out a mini (for instance sampling fifty theses) but systematic research (by using a checklist) on theses or dissertations randomly selected from the archive of CoHE National Thesis Center. This will give deep insights the novice researchers about which aspects should be given importance and which should not in their master's theses. This also will make them find

gaps in the literature in the first place. Because they can find fairly elaborated information in each chapter and section of the theses and dissertations.

6.2.2. Methodological Implications

This study's overall data collection, analysis and interpretation processes were conducted within the axis of qualitative research method. The data was collected through a table of Microsoft Excel worksheet and a checklist. Only one way of data collection may not reflect the existing status methodological trends. This can be overcome by implementing other qualitative data collection tools like interviews or using quantitative data collection tools such as questionnaires, scales by engaging the authors of the theses and dissertations and supervisors of the researchers.

This study's contribution to the literature cannot be underestimated. Because it revealed very significant and diverse findings related to researchers' methodological tendencies in master's theses and doctoral dissertations. However, researchers' trends in their methodological choices may not be reflected precisely by examining different authors' studies pre and while pandemic. Instead, examining the methodological trends in the same authors' pre and while pandemic studies may yield more scientific results compared to the current study.

Regarding the last three years' overall findings, the mostly implemented instrument was scale/survey and the mostly recruited sample group was Prep School/University EFL Learners. Researchers are strongly suggested to implement interviews or other qualitative tools especially in their master's theses. Because qualitative research enables researchers to deepen their studies in terms of focusing on individuals' opinions directly and enhances their studies' strength. They are also recommended to choose K-12 EFL learners more than university EFL learners as sample group. Because it is expected that ELT researchers should focus on the younger groups of learners as language learning is such a phenomenon that it occurs mostly at younger ages.

6.2.3. Recommendations for Further Studies

As mentioned in the limitations section, in this study, researcher's methodological tendencies investigated only by analyzing their master's theses and doctoral dissertations, to answer two main and eight sub-questions covering eight main aspects of methodology sections as *research design, research method, data collection tool, data analysis method/calculations, sampling method, sampling group/size and data analysis software*. Further researchers can involve such other aspects in their further studies as topic, setting, convenience of reliability issues, etc. They can also explore methodological tendencies of

researchers by conducting questionnaire(s) or interview(s). Moreover, they can involve journal papers to make a comparison pre and while pandemic. They can also extend the scope of this study as pre, while and post pandemic by involving the post period of the pandemic in their further research.



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APPENDICES

Appendix 1 Descriptive table of theses and dissertations in ELT (1990 to 2021)

Frequencies of theses and dissertations regarding their departments published on the website of CoHE's National Thesis Center (from 1990 to 2021)																									
Year	English Language Teaching			English Teacher Education			Teaching English as a Foreign Language			Foreign Languages*			Foreign Languages Education *			Teaching Foreign Language *			Secondary Education Foreign Languages			Total			
	MA	PhD	Tot	MA	PhD	Tot	MA	PhD	Tot	MA	PhD	Tot	MA	PhD	Tot	MA	PhD	Tot	MA	PhD	Tot	MA	PhD	Tot	
1990	1		1	1		1																2		2	
1991	2		2																			2		2	
1992	2		2																			2		2	
1993	1		1																			1		1	
1994																									
1995							1		1				1		1							1		1	
1996		2	2				1		1													1		1	
1997	2	1	3																			2		2	
1998	2	1	3				1		1													3		3	
1999	8	2	10										1		1							9		9	
2000	3	2	5				2		2				1		1							6		6	
2001	3		3											1	1							3		3	
2002	3		3													1		1				3		3	
2003	4		4										2		2							6		6	
2004	17	6	23	5		5	14		14	3		3	29	2	31							68	8	76	
2005	6		6	1		1	11		11	1		1	11	1	12							30	1	31	
2006	26	3	29	3		3			0	1		1	27	4	31	1		1				58	7	65	
2007	23	5	28	5	3	8				3		3	31	2	33							62	10	72	
2008	29	4	33	8	3	11				5		5	38	4	42	6		6				86	11	97	
2009	48	5	53	11	1	12				3		3	32	3	35	2		2				96	9	105	
2010	70	10	80	15	2	17							43	12	55	5	1	6				133	25	158	
2011	43	8	51	2	1	3	15		15	4		4	33	7	40		1	1				97	17	114	
2012	37	21	58	2	1	3	7		7	1		1	37	9	46	2		2				86	31	117	
2013	81	8	89	8		8	9		9	3		3	28	5	33	5		5				134	13	147	
2014	139	15	154	6	2	8	9		9	2	1	3	43	12	55	2	2	2				201	30	231	
2015	113	20	133	9	2	11	15		15	5		5	37	7	44	1		1				180	29	209	
2016	109	16	125	5		5	7	2	9	3	1	4	41	22	63	3		3				168	41	209	
2017	102	22	124	3	2	5	16		16	4		4	40	16	56	3	2	5				168	42	210	
2018	68	23	91	5	1	6	6	2	8	4	2	6	66	34	100	1	1	2				150	63	213	
2019	141	23	164	5	1	6	7		7	17		17	167	23	190	7	1	8				344	48	392	
2020	111	17	128	2	1	3	12	1	13	3	2	5	78	23	101	2	0	2				208	44	252	
2021	118	17	135	3		3	4		4	7		7	107	24	131	0	0	0				239	41	280	
Total	1312	231	1543	98	20	118	138	5	143	69	6	75	892	212	1104	40	7	47	0	0	0	2549	481	3030	

The theses were scanned by selecting the relevant department from the "Detailed Search" engine of the National Thesis Center, and selecting "Education and Training" as the subject
 * The theses related to the Department of Foreign Languages were reached by selecting only the theses written in English.

Appendix 2 The selection of master's theses and doctoral dissertations on CoHE's National thesis database



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University

Institute

Division

Discipline

Subject

Keyword

Choose

Choose

Thesis type

Access type

Status

Language

Group

Abstract

Select

Select

Select

Select

Select

Abstract

Year

Thesis No

Title

Author

Supervisor

Select

Select

Select

Select

Select

Abstract

<=Year<=

Thesis No

Title

Author

Supervisor

Select

Select

Select

Select

Select

Abstract

Search

Clear

Appendix 3 The list of master's theses and doctoral dissertations analyzed

The List of the Sample															
2019 MA				2020 MA				2020 PhD				2021 MA			
2019 MA	2019 PhD	2020 MA	2020 PhD	2019 MA	2019 PhD	2020 MA	2020 PhD	2020 MA	2020 PhD	2021 MA	2021 PhD	2021 MA	2021 PhD	2021 MA	2021 PhD
605006	555072	560252	550799	589508	553608	583430	607755	544946	657211	655749	614683	648790	646699	628462	680655
546187	554594	566146	546842	601049	551516	604041	586403	535231	632860	669255	614681	612533	631711	654695	680655
604398	541089	556854	585827	583947	600471	538513	591684	551228	629715	609206	655852	609297	628229	637897	672887
545761	555073	606410	547847	543199	608962	583015	551351	552020	632850	635969	648798	627798	646241	620096	672217
386623	602109	588829	581683	543200	561737	581040	551848	548274	631993	621170	640554	657270	647765	643244	681691
591649	544977	560246	551616	546268	566960	565273	555123	560842	635776	628231	618090	642587	648827	636827	699135
386944	544208	588077	567679	583162	559589	562731	537957	560701	616645	617935	668374	626845	627847	655720	702992
560239	551713	576352	597806	583592	556953	562790	551281	559721	631367	682209	640117	646485	627485	637881	661159
388832	555201	588710	623413	576676	589410	583018	561226	555702	643707	628719	632204	659576	626880	637881	661159
553042	550880	575386	582363	560395	588853	603531	555003	538453	644546	636170	640526	662832	657149	637901	664172
560339	555079	590444	580302	584012	585859	598842	560564	553755	646534	652604	635790	642594	627344	687345	690624
551509	559747	588487	553513	576756	607550	563642	575171	569705	640496	638457	635935	628193	616834	632894	698986
559761	548504	590690	557248	580773	544020	559722		564796	636162	636063	628287	628543	626375	643648	668701
537725	544010	582209	556239	553571	573499	591448		559055	636163	633904	633851	642607	627019	643030	693880
537219	547801	594751	600762	600031	590734	594862		570398	663560	628611	656301	627850	636680	638800	690194
577368	555069	586968	558585	580076	580964	593005		567103	630011	657534	637026	649343	662820	632945	667231
544251	544217	592360	580807	544467	583312	597064		569143	657384	628172	614695	630714	657033	633200	705247
551435	551511	585485	583196	545442	557883	591382		562338	614684	631977	635818	675421	660581	632852	685857
544639	550595	560248	570343	553622	555416	581182		588819	635757	640488	629968	640224	641070	621213	697877
551279	562927	589402	573629	580778	566036	601717		595010	613168	627823	630270	626902	636771	646566	697877
555070	556396	591677	557254	590969	583520	599666		595018	630777	667790	632862	620921	633173	623965	697877
556454	562358	589249	581956	583624	553474	579842		543965	643528	632980	644132	633436	609827	629030	686040
555078	583192	589260	581201	616901	559739	578015		535510	615901	633897	644132	632186	637086	623965	678219
553471	569675	592062	559735	580135	598039	547104		567521	632865	616517	666806	638038	647042	628544	673949
550482	583027	589690	583594	588916	601373	563815		586103	614679	628592	635993	636752	665026	656642	682188
544964	564563	560249	584727	579867	573469	574456		537606	640107	620278	630274	634660	666799	634172	685867
559798	564626	590598	572758	575636	582430	594864		554011	614678	655886	632044	640463	610529	677525	685447
540943	564680	600915	553847	587120	559759	601825		590740	638332	672799	652336	644554	626440	656545	677196
559754	562795	594691	564407	548540	600571	599829		556036	672801	637857	628222	655945	628693	646532	667088
555077	563533	602556	591673	581870	600537	600431		582349	634187	630204	628767	610719	633798	656523	662601
554925	564466	593179	595511	580462	550001	604270		604067	656235	633187	627858	634136	626870	657577	677265
550881	567250	584876	539874	562796	562085	564655		570841	655900	633064	627816	657156	656265	643563	
559772	581183	592738	581427	588549	586783	551334		553724	638440	635814	639732	646524	648818	619326	
538516	563325	593192	542976	597984	583097	583557		554089	635924	614685	627914	628482	633800	616334	
551799	560238	594612	576749	581939	583204	551434		546175	628513	614692	627886	634185	624156	657029	
552145	555080	592095	566738	562557	571040	565301		583360	632635	610779	627815	634186	636176	665185	
544567	586958	586409	562389	563038	571019	583171		548564	627934	635977	654815	642578	628733	633503	
538745	586649	590899	609225	584185	551984	563817		585870	638345	628475	627813	648977		643721	
559745	567756	595060	590773	563246	583928	594478		583016	633043	655835	627852	627832		664545	
559814	583241	615336	575371	551677	600503			564377	632083	618619	627860	619872		653486	
560712	581668	608069	584345	555813	547130	577403		590581	643193	613117	636509	627937		653486	
547141	560251	614053	593626	600516	543490	605603		584022	610733	614693	645052	628601		642590	
553472	574128	555076	557149	556459	592183	562781		543808	632989	636459	609084	640937		657101	
551510	588235	553786	564635	599833	552273	550777		542944	637879	643329	655942			650225	
555074	572783	569022	581171	601230	600495			589289	637876	632813	652300	628830		656732	
563536	572346	560254	560831	585423	601757	543291		635898	635565	621034	628686			645250	

Appendix 4 Main and sub-criteria checklist at the end of the pilot study

Main Criteria	Sub-criteria									
	1 Mixed	2 Quantitative	3 Qualitative	4 Not Mentioned	5	6	7	8	9	10
Design	1 Experimental study	6 Concurrent mixed method	11 Action research study	16 Grounded theory study	21 Sequential/Transformative Sequential	26 Not Mentioned				
	2 Descriptive study	7 Correlational study	12 Phenomenological study	17 Meta analysis	22 Observational					
	3 Case study	8 Corpus-based	13 Embedded mixed method	18 Predictive Research	23 Discourse Analysis					
	4 Explanatory sequential mixed method	9 Exploratory sequential mixed method	14 Content / Document analysis	19 LessonStudy	24 Acoustic Analysis					
Instrument	5 Survey-based	10 Conversation analysis	15 Ethnography study	20 Narrative Inquiry	25 Interpretative Approach					
	1 Scales / Surveys	4 Checklists / Rubrics / Tables	7 Reflection Papers	10 Diaries	13 Metaphor	17 Action Research Accounts				
	2 Interviews	5 Open Ended Questions / Surveys	8 Field / Observation Notes	11 Portfolios	14 Evaluation Form					
	3 Test / Task results	6 Video / Audio recordings	9 Journals	12 Smart watch	15 InformationForm					
Data analysis	1 Independent Samples T-test	5 Mann Whitney U-Test	9 Friedman	13 Content/Thematic Content/ Document/Discourse Analysis	17 Constant Comparative Method	21 Multilayered Analytic Method				
	2 Paired Samples T-test	6 Kruskal Wallis H-Test	10 Correlation	14 Axial/Open Coding/Categorizing/Theming	18 Grounded Theory Analysis	22 Contrastive Rhetoric Analysis				
	3 ANOVA	7 Wilcoxon Signed Rank Test	11 Regression	15 Descriptive Analysis	19 Interpretative Phenomenological Analysis	23 Acoustic Analysis Technique				
	4 ANCOVA	8 Chi-Square	12 Factor	16 Inductive Qualitative Analysis	20 Collective Case Study Analysis					
Sampling method	1 Convenience	3 Random	5 Criterion	7 Maximal Variation	9 Saturation					
	2 Purposive	4 Snowball	6 Quota	8 Cluster	10 Not Mentioned					
Sample group and size	1 Prep School/University EFL Learners	4 Pre Service EFL Teachers/ELT Students	7 Middle School EFL Learners	10 ESP EMI Learners/Students	13 ELT Postgraduate Students	16 Mixed K-12 Learners				
	2 Prep School EFL Instructors	5 Materials/Books/Corpora/Documents	8 Primary School EFL/Young Learners	11 ESP EMI Instructors/Professors	14 Other English Language Department Students	17 General EFL Learners				
	3 K-12 EFL Teachers	6 High School EFL Learners	9 ELT Teacher Trainers	12 School Administrators	15 Private Course Instructors/Teachers	18 General Language Speakers				
Data analysis software	1 SPSS	8 AntConc	14 Graph Pad Prism	20 TexLex Compare	26 Praat	32 EduG				
	2 NVivo	9 Atlas.Ti	15 UAM Corpus Tool	21 CLANTAP	27 RProgramme	33 FACETS				
	3 MAXQDA	10 Stata	16 JMP	22 Sketch Engine	28 RANGE	34 NotMentioned				
	4 Microsoft Excel	11 Smart PLS SEM	17 Word Frequency Counter	23 Audacity Cross Platform Sound Editor	29 FREQUENCY					
	5 AMOS	12 Winstep	18 L2 Syntactic Complexity Analyzer	24 Mondada	30 Comprehensive Meta Analysis (CMA)					
	7 Lisrel	13 Transana	19 Vocab Profil	25 Polarflow	31 Minifac Rasch					

Appendix 5 Main and sub-criteria checklist for the main study

Criteria	Sub-criteria	
Research method	1 Mixed	3 Qualitative
	2 Quantitative	4 Not Mentioned
Design	1 Experimental study	11 Action research study
	2 Descriptive study	12 Phenomenological study
	3 Case study	13 Embedded mixed method
	4 Explanatory sequential mixed method	14 Content / Document analysis
	5 Survey-based	15 Ethnography study
	6 Concurrent mixed method	16 Grounded theory study
	7 Correlational study	17 Meta analysis
	8 Corpus-based	18 Other
	9 Exploratory sequential mixed method	19 Not Mentioned
	10 Conversation analysis	
Data collection instrument	1 Scales / Surveys	8 Field / Observation Notes
	2 Interviews	9 Journals
	3 Test / Task results	10 Diaries
	4 Checklists / Rubrics / Tables	11 Portfolios
	5 Open Ended Questions / Surveys	12 Smart watch
	6 Video / Audio recordings	13 Other documents
	7 Reflection Papers	
Data analysis	1 Independent Samples T-test	13 Content/Thematic Content/ Document/Discourse
	2 Paired Samples T-test	14 Axial/Open Coding/Categorizing/Theming
	3 ANOVA	15 Descriptive Analysis
	4 ANCOVA	16 Inductive Qualitative Analysis
	5 Mann Whitney U-Test	17 Constant Comparative Method
	6 Kruskal Wallis H-Test	18 Grounded Theory Analysis
	7 Wilcoxon Signed Rank Test	19 Interpretative Phenomenological Analysis
	8 Chi-Square	20 Collective Case Study Analysis
	9 Friedman	21 Multilayered Analytic Method
	10 Correlation	22 Contrastive Rhetoric Analysis
	11 Regression	23 Acoustic Analysis Technique
	12 Factor	
Sampling method	1 Convenience	6 Quota
	2 Purposive	7 Maximal Variation
	3 Random	8 Cluster
	4 Snowball	9 Saturation
	5 Criterion	10 Not Mentioned
Sample group and size	1 Prep School/University EFL Learners	10 ESP EMI Learners/Students
	2 Prep School EFL Instructors	11 ESP EMI Instructors/Professors
	3 K-12 EFL Teachers	12 School Administrators
	4 Pre Service EFL Teachers/ELT Students	13 ELT Postgraduate Students
	5 Materials/Books/Corpora/Documents	14 Other English Language Department Students
	6 High School EFL Learners	15 Private Course Instructors/Teachers
	7 Middle School EFL Learners	16 Mixed K-12 Learners
	8 Primary School EFL/Young Learners	17 Other EFL Learners
Data analysis software	9 ELT Teacher Trainers	18 Other Samples
	1 SPSS	8 AntConc
	2 NVivo	9 Atlas.Ti
	3 MAXQDA	10 Stata
	4 Microsoft Excel	11 Log Likelihood
	5 AMOS	12 Others
	6 Keywords in Context (KWIC)	13 NotMentioned
	7 Lisrel	

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