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Views of Master's Students at Health Sciences on Their Academic Self-Efficacies

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Abstract

The study explored the academic self-efficacies of Master's students' at Kırklareli University's Graduate School of Health Sciences. The study was carried out during the Fall semester of the 2016-2017 academic year. The participants included eight female and one male master's student. The qualitative study employed the phenomenology design. Content analysis was conducted for data analysis. The data was collected using a semi-structured interview form made up of 14 open-ended questions. The collected data is presented using mind maps. The study results revealed Master's students' views on their self-efficacies in academic writing, research methods and techniques, data collection and analysis, academic socialization, and other factors affecting their academic self-efficiency. The study results showed that, for academic self-efficacy, the work discipline came first. The students believed that they were adequate in doing homework and were meticulous, but were inadequate in writing projects, articles, books, and book chapters. Students were indecisive about which method and technique they should choose, found their existing knowledge levels low, felt inexperienced, and they felt like they needed to do more research. They also felt inadequate in using the terminology related to the field during data collection.

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INTRODUCTION

Thesis based Master's degrees are educational programs that enable students to gain the ability to access, compile, interpret and evaluate information by using scientific research methods, whereas non-thesis master's programs are educational programs that teach how to use the knowledge of professional subjects in practice. The Ph.D. program, on the other hand, is the highest level of postgraduate education that focuses on the scientific research process in-depth and aims to develop Ph.D. student's analysis and synthesis skills. Aiming for specialization and personal development, graduate education is an education level that is affected by academic and social integration, satisfaction with undergraduate education, a desire to achieve a degree, family's education level, and the amount of financial support, in other words, family income (Ethington & Smart, 1986). While undergraduate education offers a broad and general education, graduate education offers further education in a specific discipline or sub-discipline. It provides an in-depth understanding so that the student can become an expert in his/her study area. A qualified graduate program teaches effective use of technology and advanced skills such as problem-solving, creativity, critical thinking, effective oral presentation (Ebel, 2001). In this context, graduate education is very important in improving the social and cultural fabric of life and society, in the sense that countries can build a staff of highly talented leaders and experts in different fields who are the key to their countries' development. Individuals receiving graduate degrees make significant contributions to their countries and the global world by providing economic, social, and cultural welfare at the national and international levels (Council of Graduate Schools, 2008). Despite these contributions, there are many problems in graduate education today. Regarding these problems, Duan and Shan (2013) highlighted problems such as lack of qualified academic advisors and low student quality in graduate education, while also pointing out students' weak theoretical readiness and low ability to solve real-life problems. They stated that the main reason behind these mentioned problems is the fact that the offered graduate education activities are not effective and do not develop students' self-learning skills. They also argued that the candidates applying for graduate education are not ready personally, have family problems affecting their education, and have financial problems hindering their education life. In addition, the length of the graduate education and the intensity of the course load lead to both financial and motivational losses for the students. Thus, the graduate students who need to both work and continue their education are forced into unfair competition with students who do not have to work. Also, as Santiago and Einarson (1998) stated, students' academic readiness, the disadvantages they experience in the situation, and their expectations about faculty-student interactions also affect their academic self-efficacy and career expectations. Furthermore, Cheng, Tsai, and Liang (2019) revealed that, particularly, academic resilience's commitment, emotion control, and challenge sub-dimensions are strong predictors of graduate students' academic self-efficacy. These study results proved the relationship between graduate students' academic resilience and their academic self-efficacy. In other words, as graduate students' level of academic resilience increases, their level of academic self-efficacy also increases. Cheng, Tsai, and Liang (2019) also drew attention to the fact that graduate students who understand academic resilience will be able to recognize and evaluate the reasons for their failure and learn how to overcome academic difficulties.

In order to overcome all these problems and increase the quality of graduate education and graduate students' efficacy, it is necessary to increase graduate students' perceived general self-efficacy and academic self-efficacy beliefs. In general, self-efficacy belief is the belief that individuals can achieve a certain task. Self-efficacy belief affects whether individuals start the behavior related to the task, their continuity in performing the behavior, their motivation for the behavior, and ultimately their performance. Self-efficacy has an important function in realizing new learning or acquiring a new skill and maintaining or learning this skill by displaying it as a behavior (Kotaman, 2008). Self-efficacy is not a skill, but it is an individual's belief about what one can do with one's own skills in certain situations. In other words, it can be expressed as the belief in the ability to coordinate what one can

do to achieve the designed goals. Individuals' self-efficacy belief is influenced by observing other people's behavior. Individuals who believe that they have a lower level of skill than other individuals are also more prone to depression than other individuals. However, individuals who have a strong belief in their own abilities respond with a milder approach to other individuals who have a higher level of skill than them. They make an effort to overcome any difficult situation they encounter and do not give up (Maddux, 2002). In this context, students with low self-efficacy beliefs give up quickly in difficult learning situations, whereas students with high self-efficacy beliefs have high motivation levels and make an effort to overcome difficult situations without giving up. These efforts increase students' achievement levels (Pintrich & DeGroot, 1990; Robbins, Lauver, Le, David & Langley, 2004). From this point of view, self-efficacy belief is closely related to motivation for learning and academic achievement. In recent years, researchers stated that there are relationships between student achievement and three types of efficacies. They listed these efficacies as student self-efficacy, teacher self-efficacy perception, and school's total efficacy. Eccles (1983) and Pintrich (1988, 1989) stated in their studies on the relationship between self-efficacy belief and learning and motivation that students who organize their learning goals like an expert and have an awareness of the importance of their task learn more with metacognitive strategies and use cognitive strategies more. In addition, students with high motivation levels use cognitive strategies more, have higher metacognition, and perform their tasks better (as cited in Pintrich & De Groot, 1990). Pajares (2002) also expressed that even if students' previous achievement levels are different, students with high self-efficacy are more hardworking, more resistant to difficulties, optimistic, and less anxious, and they are more successful in academic terms. Students with a high belief that they can fulfill their academic tasks give more place to the use of cognitive and metacognitive strategies and continue to work longer than those who do not. Furthermore, students with stronger academic self-efficacy use cognitive strategies and self-control strategies more effectively by using metacognitive strategies. Self-efficacy is a facilitator in cognitive participation. Thus, using cognitive strategies more to increase self-efficacy belief increases performance. For this reason, a combination of will and skill is a necessity for achievement.

In the literature, studies on self-efficacy have been mostly conducted on mathematics self-efficacy (Ardi, Rangka, Ifdil, Suranata, Dharnis, Afdal, & Alizamar, 2010; Ayotola & Adedeji, 2009; Rozgonjuk, Kraav, Mikkor, Orav-Puurand, & That, 2020), science and technology self-efficacy (Evans, 2014; Yoon, Vonortas, & Han, 2020), emotional self-efficacy (Bassi et. al., 2018; Caprara et. al., 2008; Ulutas, 2016), academic self-efficacy (Kader & Eissa,2015; Aktas, 2017; Bagci, 2018; Hirlak et. al., 2017; Honicke & Broadbent, 2015; Koludrović & Ercegovac, 2015; Yokoyama, 2018), social self-efficacy (Karakoyun, 2016; Satici, Kayis, & Akin, 2013), entrepreneurial self-efficacy (Koenig, 2016) and general self-efficacy (Gündoğdu, Dursun, & Saracaloğlu, 2020). Self-efficacy expectation is "one's abilities self-convincing about it". Positive self-efficacy increases the motivation of the expectation of provides and makes one willing to make an effort, whereas negative self-efficacy expectation causes one not to act on his/her own initiative or get a job done. It is pointed out that this causes the individual to leave without finishing (Yılmaz, Gürçay, and Ekici 2007). In this context, graduate students' academic self-efficacy beliefs are a factor that will affect their ability to cope with difficulties and thus their success in graduate education. Therefore, it is important for students to have positive academic self-efficacy beliefs. Academic self-efficacy refers to an individual’s decision regarding their ability to organize and execute their actions in order to achieve the desired performance (Bandura, 1996).

In their study, Ferla, Valcke, and Cai (2009) revealed that academic self-efficacy predicts academic achievement. Koludrovic and Ercegovac (2017) determined that the level of fulfilling academic tasks also has a significant effect on intrinsic and extrinsic motivation. In addition, they concluded that graduate students have significantly more intrinsic motivation than undergraduate students, and are more committed to studying, thus increasing their academic self-efficacy. They also stated that compared to young undergraduate students, their professional expectations are clearer

and they are intrinsically motivated to acquire the necessary efficiencies to perform better in their future careers.

Students with high academic self-efficacy can achieve success by not giving up in the face of a problem, making a high level of effort, and working hard, in other words, they have positive feelings about their learning tasks, and thus their academic self-efficacy levels increase even more. Similarly, students with strong academic self-efficacy can answer questions without hesitation and achieve success thanks to their positive beliefs about academic work and their belief that they can answer the questions they are asked (Bassi, Fave, Steca, & Caprara, 2018; Liew, McTigue, Barrois, & Hughes, 2008; Medrano, Flores-Canter, Moretti, & Pereno, 2016; Yalnuz, 2014; Yılmaz, Gürçay, & Ekici 2007).

The studies on academic self-efficacy in the literature are mostly at the undergraduate level (Adeyemo, 2007; Akbay & Gizir, 2010; Chemers, Hu & Garcia, 2001; Elias & Loomis, 2000; Özsüer, İnal, Uyanık, & Ergün, 2011; Sagone & De Caroli, 2014). However, in Turkey, studies on academic self-efficacy at the graduate level are quite limited. It is very important to increase the academic self-efficacy beliefs of graduate students to increase the quality of graduate education.

Along with the Bologna Process, the Turkish Council of Higher Education defined the qualifications for graduate education, just like it did for undergraduate education. Within the framework of qualifications, the qualifications of graduate students at the level of knowledge, skills, and competencies were defined. Knowledge refers to theoretical and applied qualifications, skills to conceptual-cognitive and applied qualifications, and competencies for being able to work independently and take responsibility, learning, communication, and field-specific competencies (Turkish Council of Higher Education, 2011). In this context, a Master's education, which is the first step of graduate education, aims to provide students with the skills to access, evaluate and interpret knowledge. Students who complete their master's education after undergraduate education are deemed to have taken the first step towards becoming a scientist. While receiving their master's degree, the scientists should acquire the knowledge, skills, and attitudes specific to their field of specialization, as well as the competencies, scientific attitudes, and behaviors related to the research methods and techniques they will use while writing their theses (Karaman & Bakirci, 2010). While describing the functions of master's education, Arıcı (1997) emphasized the competencies that Master's students should acquire, and expressed these competencies as producing science and art, perceiving social problems correctly, developing solutions to problems, and contributing to the education of high-level manpower.

The individuals' goals to start graduate education are also the above-mentioned desire to be a scientist, their interest in theoretical subjects, and their desire to do scientific research, learn the scientific research process, gain a scientific perspective, and make an academic career (Erkılıç, 2007). For this reason, starting with the academic exams, improving Master's students' different skills such as scientific research, data collection, analysis, academic writing, and academic research should be aimed using theoretical and practical ways. As Aslan (2010) stated, Master's students feel inadequate about answering numerical questions in the graduate school exams, mastering a foreign language, understanding and using linguistics and education terminology, designing projects, finding a thesis subject, writing a thesis, and mastering research methods and techniques, statistics, and research ethics. Within the framework of this purpose, as Özsüer et al. (2011) stated, taking into account Master's students' perceptions, predictions, and evaluations on their own abilities related to the different competencies mentioned above can be considered a way to discover new perspectives on academic self-efficacy beliefs.

In this context, it is vital to increase Master's students' academic self-efficacy belief levels in order to increase the quality of education, realize the academic self-efficacy beliefs of the students in the field they study, and successfully fulfill the goals of master's education, which is the period in which scientists are raised. Academic self-efficacy in master's education is one of the least discussed topics.

It can be said that the studies on this subject are insufficient (Karakütük, 2000, 2002; Özoğlu, 2001: cited in Aslan, 2010).

A long chain of variables consisting of different components that Master's students try to gain competence while continuing their graduate education, such as scientific research, data collection, analysis, academic writing, and producing academic works affect students' academic self-efficacy beliefs. In the present study, the different variables mentioned above that affect the academic self-efficacy beliefs of Master's students are discussed. In other words, the present study explored Master's students' views on their academic self-efficacy regarding scientific research, data collection, analysis, academic writing, and producing academic works. For this reason, answers to the study questions stated in the following section were sought. The answers to the following questions were sought in line with the study's general purpose of determining Master's students' views on their academic self-efficacy.

1. What are Master's students' views on self-efficacy in academic writing?
2. What are Master's students' views on research methods and techniques self-efficacy?
3. What are Master's students' views on data collection self-efficacy?
4. What are Master's students' views on data analysis self-efficacy?
5. What are Master's students' views on academic socialization self-efficacy?
6. What are Master's students' views on their self-efficacy related to other factors?

METHOD

RESEARCH DESIGN

In the present study, the phenomenology design, one of the qualitative research methods, was employed to explore Master's students' experiences regarding their self-efficacy and the differences and similarities between them, and the reasons behind these. In a phenomenology study, which lies its foundations in philosophy and psychology, the common meaning of the experiences of a few people or participants of a phenomenon or concept is defined together together with the common characteristics of the participants, resulting in reaching the essence of individuals' lives (Creswell, 2013). The study was carried out before 2020. Therefore, an ethics committee report was not required.

STUDY GROUP

The study was conducted with nine Master's students attending X University's Graduate School of Health Sciences during the Fall semester of the 2016-2017 academic year. The participants, 23-30 years old, included one male and eight female Master's students. Four of them were doing their graduate work in Child Development, two in Nursing, and three in Public Health. While determining the study group, criterion sampling, one of the purposeful sampling methods, that provides an in-depth examination of the situations obtained in the study was used (Patton, 1997). Criterion sampling is a sampling method in which participants are determined by the criteria decided before the study. For this purpose, the decision-makers can be researchers as well as information based on literature (Yıldırım & Şimşek, 2011). The criterion used in the determination of the participants in this study was the participants being active students of a graduate program carried out under the roof of X University and voluntarily accepting the interview. The participant group was chosen because one of the researchers was teaching a course to them.

DATA COLLECTION

To collect the data, a semi-structured interview form including 14 open-ended questions was developed using the relevant literature. Draft interview questions were formed based on the categorical notes obtained from the examination of the studies in the literature that investigated the beliefs and problems experienced by graduate students regarding their academic self-efficacy, and the observation notes on the problems experienced by graduate students of two faculty members who

were offering graduate courses. In the finalization of the interview form, the opinions of two academicians working in the field were taken. Based on the opinions of the experts who were working as lecturers in the education sciences department of different universities, two questions were removed from the interview form. After the form was applied to a student as a pilot and her opinions were taken, the form was restructured based on the opinions of the experts and the student, given its final form. The data was collected through face-to-face interviews with the participants. The interviews were carried out individually in the empty classrooms of the faculty building after students' graduate classes ended. Before the interview, the participants' consent was taken, and the interviews were recorded on a voice recorder. The shortest interview took 45 minutes, whereas the longest one took 65 minutes.

DATA ANALYSIS

Before data analysis, the audio recordings were deciphered and transcribed. A 28-page written data set was obtained from all participants. Content analysis steps were taken to analyze the data. According to Başfırıncı (2008), in content analysis, all kinds of content such as text, pictures, or images are systematically examined to make the collected data meaningful. In line with the purpose of content analysis as stated by Özdemir (2010) and Tavşancıl and Aslan (2001), similar data were gathered around certain themes according to the messages and meanings they contained, and were coded in an order that the reader could understand and were interpreted and described. In addition, for data analysis, the three stages of Miles and Huberman (1984) were followed, namely data reduction, data display, and conclusion drawing and verification.

VALIDITY

In order to ensure the content validity of the developed interview form, first, the opinions of two academicians regarding the interview questions were taken. To determine the level of agreement, the coder reliability formula [Reliability = Number of Agreements / (Number of Agreements + disagreements)] suggested by Miles and Huberman (1994) was used. Accordingly, the inter-coder reliability was found as 75%. Since this rate would be low compared to Miles and Huberman, a third evaluator who was a lecturer in the field of educational sciences and studying qualitative patterns was asked to code. The agreement between the three evaluators was recalculated according to the specified formula and the agreement was found to be approximately 82%. According to this, it is expected that the consensus among coders will be at least 80% (Miles & Huberman, 1994). The internal validity of the study was checked by two students participating in the study. For external validity, the participating students' views are presented with direct quotations from the views in the interview form.

FINDINGS

The findings obtained after the data analysis are presented in figures. Explanations and some participant views are given under the figures. In the study, six main themes and sub-categories were formed. The themes and categories formed after the content analysis are presented in Table 1.

Table 1. *Themes and Categories*

Themes	***Categories***
Views on self-efficacy in academic writing	Views on self-efficacy in homework /presentation/project writing Views on self-efficacy in finding thesis topic/thesis proposal/writing thesis Views on self-efficacy in writing articles/books/book chapters
Views on self-efficacy in research methods and techniques	
Views on self-efficacy in data collection	Views on self-efficacy in understanding and using the terminology in the field Views on self-efficacy in understanding and using articles written in a foreign language Views on self-efficacy in accessing and browsing the literature Views on self-efficacy in using computers and software
Views on self-efficacy in data analysis	
Views on self-efficacy in academic socialization	Views on the participation in symposium, congress, workshop events, and concerns Views on the communication with faculty members and thesis advisors
Views on other factors affecting self-efficacy	

VIEWS ON SELF-EFFICACY IN ACADEMIC WRITING

Master's students' views on self-efficacy in academic writing were grouped into categories such as views on self-efficacy in homework/presentation/project writing, views on self-efficacy in finding thesis topic/thesis proposal/writing thesis, and views on self-efficacy in writing articles/books/book chapters.

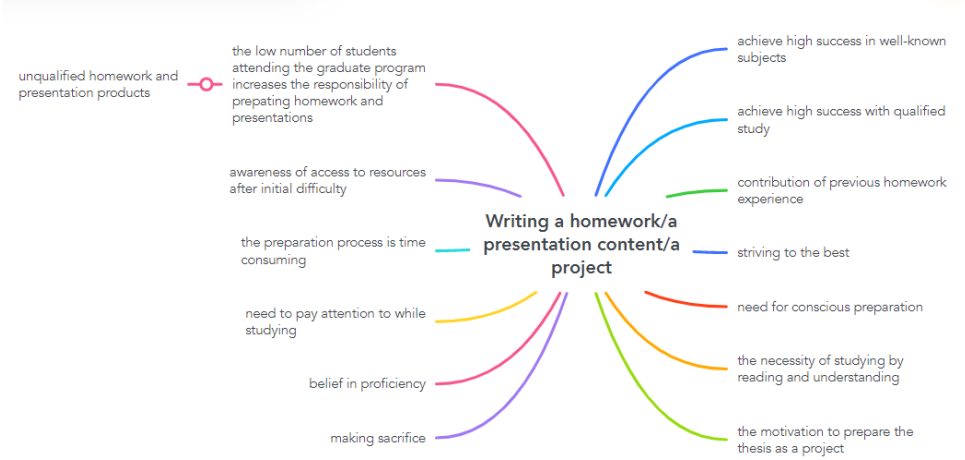
Table 2. *Sub-categories of Views on Self-efficacy in Academic Writing*

Views on self-efficacy in academic writing	Views on self-efficacy in homework /presentation/project writing Views on self-efficacy in finding thesis topic/thesis proposal/writing thesis Views on self-efficacy in writing articles/books/book chapters

VIEWS ON SELF-EFFICACY IN HOMEWORK/PRESENTATION/PROJECT WRITING

In Figure 1, findings regarding Master's students' views on self-efficacy in homework/presentation/project writing that were categorized under views on self-efficacy in academic writing are presented.

Figure 1. *Views on Self-efficacy in Homework/Presentation/Project Writing*



According to Figure 1, Master's students' views on self-efficacy in homework/presentation/project writing category has thirteen views, namely striving to be the best, making sacrifice, belief in proficiency, need for conscious preparation, the necessity of studying by reading and understanding, the low number of students attending the graduate program increases the responsibility of preparing homework and presentations, awareness of access to resources after initial difficulty, achieving high success in well-known subjects, achieving high success with qualified study, the preparation process is time consuming, need to pay attention to while studying, contribution of previous homework experience, and the motivation to prepare the thesis as a project. Students are of the opinion that the necessity of focusing their attention and reading, and the aim of achieving a high level of success by conducting a quality study affect their self-efficacy in academic writing. Some of the Master's students' views on the aforementioned theme are given below by the category name titles.

The low number of students attending the graduate program increases the responsibility of preparing homework and presentations:

S2. The number of people in the Master's program is two. This sometimes causes us to prepare three presentations in a week. If we take into account my outside responsibilities, sometimes products with limited quality are produced. Despite all these conditions, I think I am not bad.

I don't have experience in writing a project, but I think about writing a project during the thesis:

S3. I feel experienced indoing homework and presentations. The contribution of the graduate-level courses was great in this regard. I don't have experience in writing a project, but I will also think about writing a project during my thesis.

To need for conscious preparation, the necessity of studying by reading and understanding:

S4. I am selfless while preparing homework and I do it by reading and understanding the subject. I approach presentations and projects with the same awareness.

To achieve high success in well-known subjects, achieving high success with qualified study:

S6. I think that I can do much better work when I work well for presentations or when I present on the subjects that I am good at.

Awareness of access to resources after initial difficulty:

S7. Since I am a little meticulous, I want it to sit with me. So, the process of preparing a presentation takes a little longer for me. At first, I didn't know where I could find resources and what resources I should use. Now, I can find what and where the resources are.

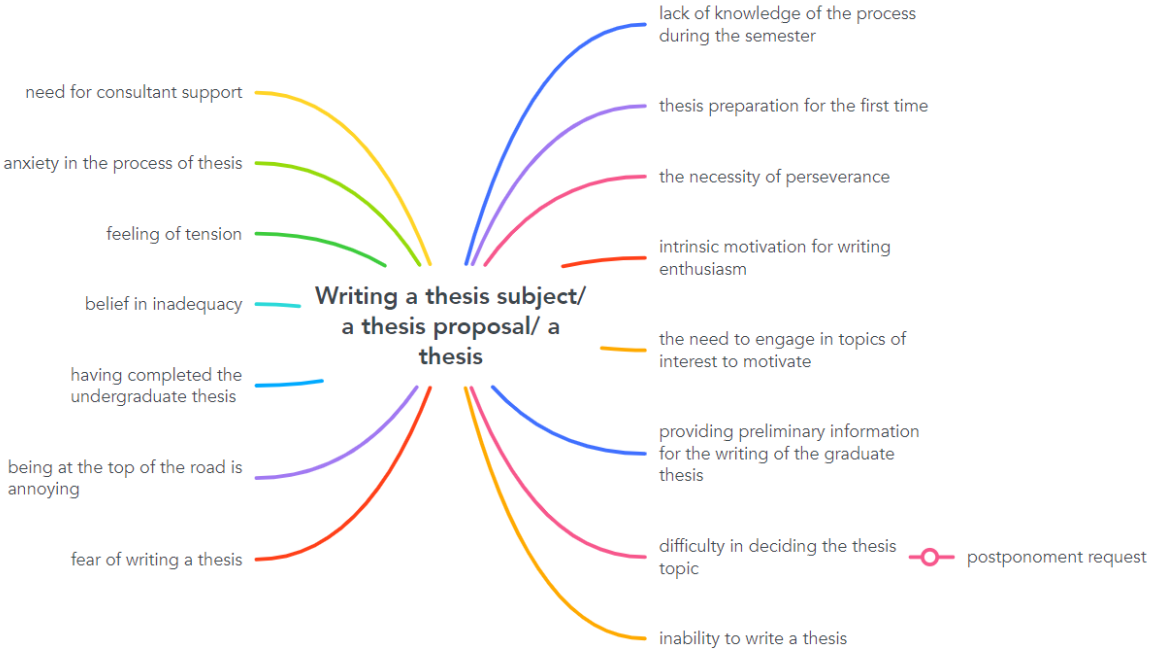
The preparation process is time-consuming, I need to pay attention while studying:

S8. When I do, good things come out, but I don't find myself efficient in using time.

VIEWS ON THE SELF-EFFICACY IN FINDING THESIS TOPIC/THESIS PROPOSAL/WRITING THESIS

In Figure 2, findings regarding Master's students' views on self-efficacy in finding thesis topic/thesis proposal/writing thesis that were categorized under views on self-efficacy in academic writing are presented.

Figure 2. *Views on Self-efficacy in Finding Thesis Topic/Thesis Proposal/Writing Thesis*



According to Figure 2, Master's students' views on self-efficacy in homework/presentation/project writing category has fourteen views, namely feeling of tension, belief in inadequacy, having completed the undergraduate thesis, providing preliminary information for the writing of the graduate thesis, being at the top of the road is annoying, difficulty in deciding the thesis topic, fear of writing a thesis, inability to write a thesis, lack of knowledge of the process during the semester, thesis preparation for the first time, the necessity of perseverance, intrinsic motivation for writing enthusiasm, the need to engage in topics of interest to motivate, the need for consultant support, and anxiety in the process of thesis. The students emphasized that they mostly saw themselves as inadequate in writing a thesis. The majority of the students stated that they experienced indecision about their thesis topic, that they felt anxious and inadequate, that the education about writing a thesis was insufficient, that their prior knowledge and readiness were insufficient, that they did not know how to write a thesis, and that they were afraid to write a thesis. Some of the Master's students' views on the aforementioned theme are given below:

Difficulty in deciding the thesis topic:

S1. It was very difficult for me to decide on the subject. I believe in the saying of a journey of a thousand miles begins with a single step, but I prostrate.

The fear of writing a thesis:

S3. I believe that I have successfully passed the thesis topic selection and thesis proposal part, but I feel inadequate and fearful about writing the thesis. I have a feeling that everything will come to a stop in some part of the thesis.

The need for consultant support:

S5. I am moving forward with the help of my advisor. I think I'm having trouble with this because I'm just at the beginning of the road.

Inability to write a thesis, lack of knowledge of the process during the semester:

S8. I think that the education I received is insufficient for writing a thesis.

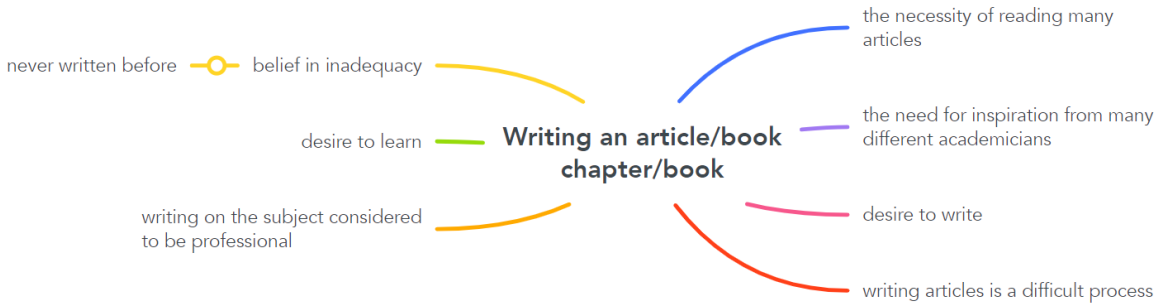
Having completed the undergraduate thesis:

S9. I think that identifying topics in line with my own interests is more productive in terms of motivation to study. I haven't written a thesis proposal before, but since I had written an undergraduate thesis, I think my prior knowledge will be beneficial.

VIEWS ON THE SELF-EFFICACY IN WRITING ARTICLES/BOOKS/BOOK CHAPTERS

In Figure 3, findings regarding Master's students' views on self-efficacy in writing articles/books/book chapters that were categorized under views on self-efficacy in academic writing are presented.

Figure 3. *Views on Self-efficacy in Writing Articles/Books/Book Chapters*



According to Figure 3, students mostly stated that they need to read many articles to feel competent in writing an article, book, or chapter and that they need to be inspired by different academicians. The majority of the students (five) described the process of writing an article as difficult and emphasized that it is necessary to be a professional in order to write on an asked subject. Some of the students mentioned not having a desire to learn and write, and expressed that the lack of experience in writing articles, books, or book chapters created a feeling of inadequacy. Some of the Master's students' views on the aforementioned theme are given below:

S2. I've never written an article, book chapter, or book. I'm trying to overcome my problems with foreign language and acquire the necessary competencies. I don't see why not, I'm hopeful.

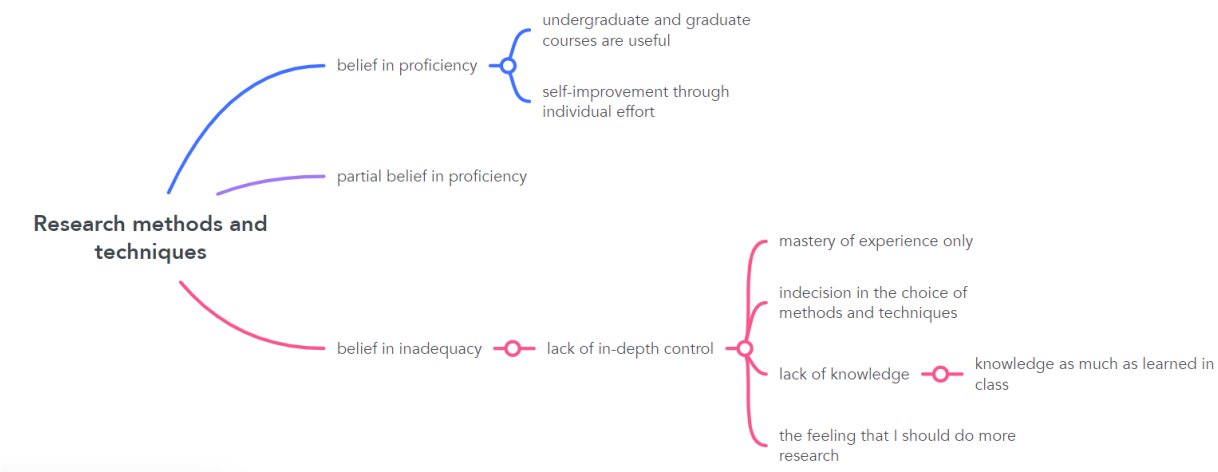
S3. I've never written an article or a book chapter. I know that I need to read more and be inspired by more academics about writing articles. I think writing an article is a difficult process.

S5. Based on our experiences in the courses, I think I can write, but of course, I think I have a long way to go to be the best.

VIEWS ON SELF-EFFICACY IN RESEARCH METHODS AND TECHNIQUES

In Figure 4, Master's students' views on self-efficacy in research methods and techniques are presented.

Figure 4. *Views on Self-efficacy in Research Methods and Techniques*



According to Figure 4, Master's students' self-efficacy beliefs regarding their research methods and techniques were grouped into three categories. While the majority of the students stated that they had a feeling of inadequacy regarding research methods and techniques, four of them stated that they felt partially competenet, and two of them stated that they felt competent due to individual effort and the benefits they gained from their undergraduate and graduate courses. Some of the Master's students' views on the aforementioned theme are given below:

S4. I am not adequate enough at this.

S8. I am not enough, but I believe that I can improve myself by reading and learning.

S9. As much as what I learned in class.

S2. I don't think I am competent, but I can adapt once I have identified the techniques I want to use.

VIEWS ON SELF-EFFICACY IN DATA COLLECTION

Master's students' views on self-efficacy in data collection were grouped into categories such as views on self-efficacy in understanding and using the terminology in the field, views on self-efficacy in understanding and using articles written in a foreign language, views on self-efficacy in accessing and browsing the literature, and views on self-efficacy in using computers and software.

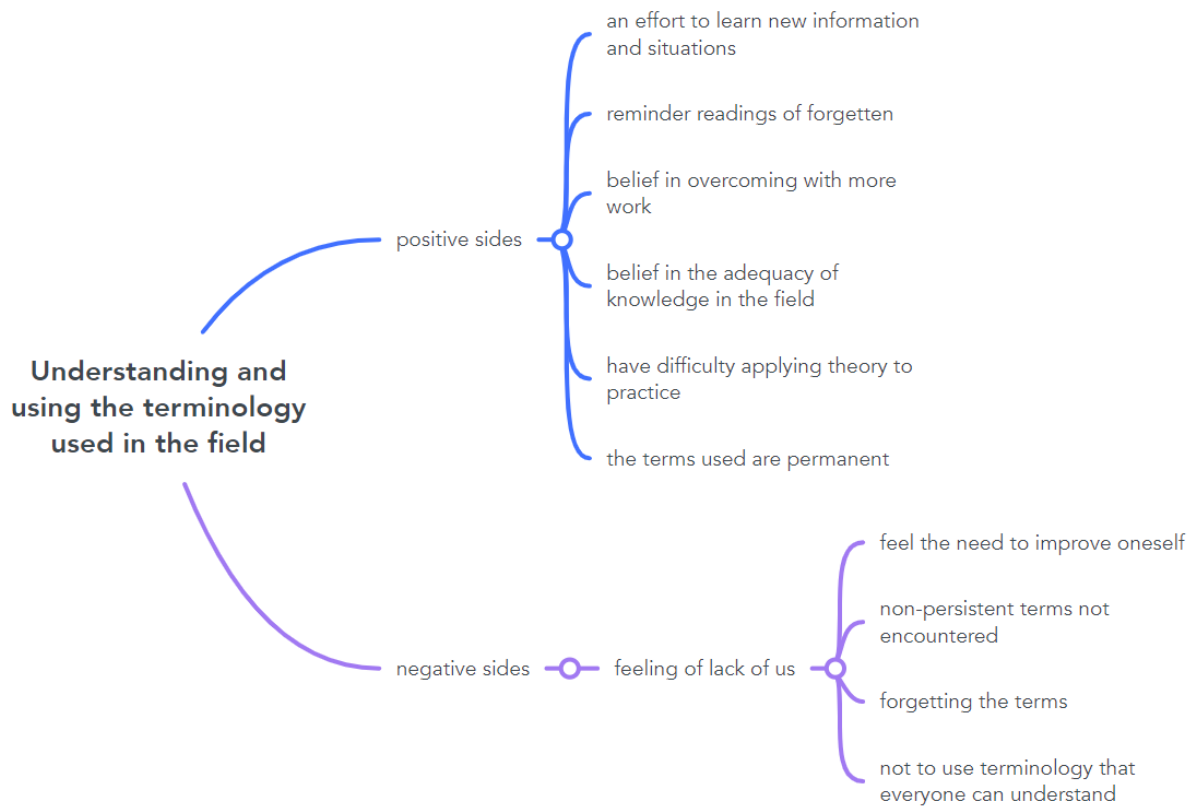
Table 3. *Sub-categories of Views on Self-efficacy in Data Collection*

Views on self-efficacy in data collection	Views on self-efficacy in understanding and using the terminology in the field
	Views on self-efficacy in understanding and using articles written in a foreign language
	Views on self-efficacy in accessing and browsing the literature
	Views on self-efficacy in using computers and software

VIEWS ON SELF-EFFICACY IN UNDERSTANDING AND USING THE TERMINOLOGY IN THE FIELD

In Figure 5, Master's students' views on understanding and using the terminology in the field that were categorized under views on self-efficacy in data collection are presented.

Figure 5. *Views on Understanding and Using the Terminology in the Field*



According to Figure 5, Master's students' views on self-efficacy in understanding the terminology used in the field were grouped under two categories, positive and negative. In the positive category of self-efficacy in understanding and using the terminology used in the field, the ideas of an effort to learn new information and situations and belief in overcoming with more work stand out the most. In the negative category, the students complained the most about forgetting the terms and not using terminology that everyone can understand. Some of the Master's students' views on the aforementioned theme are given below:

S2. Although I think that I am adequate, I always try to make up for my shortcomings, read to remind myself what I have forgotten, and learn about new things I have encountered.

S3. I find myself adequate in understanding the terminology used in my field, but I see that I have shortcomings in using it, and I hope that this can be corrected by studying more.

S4. I didn't choose to use a lot of terminologies so that everyone can understand them. But the information is doomed to be forgotten.

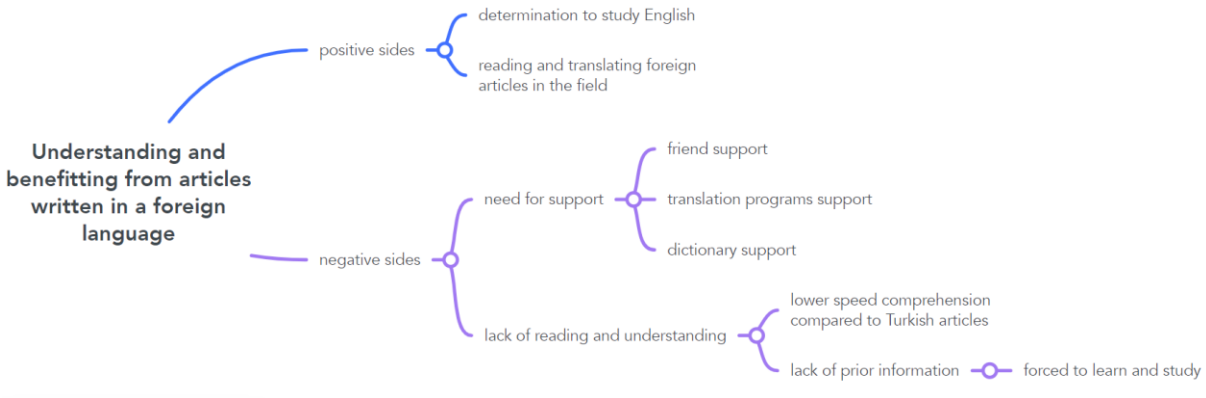
S5. Although I think that there are many subjects that I need to improve myself on, I feel confident in my field. But I have some difficulties in putting my theory into practice even if my theoretical knowledge is better.

S7. The terminological words I use constantly are permanent, but I may have problems with words that I don't use regularly.

VIEWS ON SELF-EFFICACY IN UNDERSTANDING AND USING ARTICLES WRITTEN IN A FOREIGN LANGUAGE

In Figure 6, Master's students' views on understanding and using articles written in a foreign language that were categorized under views on self-efficacy in data collection are presented.

Figure 6. *Views on Understanding and Using Articles Written in a Foreign Language*



According to Figure 6, Master's students' views on self-efficacy in understanding articles written in a foreign language were grouped under two categories, positive and negative. Regarding the positive aspects, the students mostly stated that they were determined to study English f(8). In addition, three students mentioned reading and translating foreign articles in the field. In the negative category, all of the students f(9) stated that they lacked reading and understanding. In this context, the majority f(7) again expressed that they had lower speed comprehension compared to Turkish articles. Some of them f(2) talked about the lack of prior information. Some of the Master's students' views on the aforementioned theme are given below:

S2. I'm pretty inadequate. I can say that I move heaven and earth with the help of dictionaries.

S3. I feel inadequate in understanding and reading articles written in a foreign language. To better understand and analyze these studies, I study in English and I try to translate articles related to the field.

S4. I understand foreign resources by translating them using Google translate and I understand better.

S5. I find myself bad. I'm trying to improve it by doing translations.

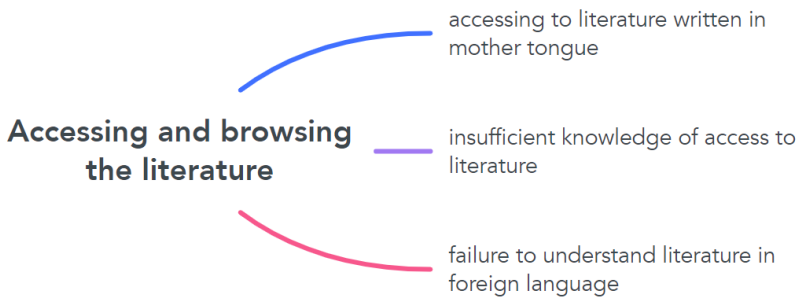
S6. Even though I understand them at a slower rate than Turkish studies, I prefer to use them. First of all, I always read the abstracts and have general knowledge about the subject, so it is easier to catch the keywords in the study. Sometimes I get support from online translation systems by breaking down the parts that I have difficulty translating. If they've been used in Turkish studies before, I also examine them.

S7. I have a lot of problems with foreign language. Since I don't have a background in this, it is a bit difficult for me to learn and work on this. I'm trying to fill this gap by doing translations using the internet.

VIEWS ON SELF-EFFICACY IN ACCESSING AND BROWSING THE LITERATURE

In Figure 7, Master's students' views on accessing and browsing the literature that were categorized under views on self-efficacy in data collection are presented.

Figure 7. *Views on Accessing and Browsing the Literature*



According to Figure 7, Master's students' views on self-efficacy in accessing and browsing the literature were grouped under two categories, accessing literature written in the mother tongue, insufficient knowledge of access to literature, and failure to understand literature in a foreign language. Most of the students f(6) talked about insufficient knowledge on accesing literature. In addition, a significant majority f(5) stated that they fail at understanding literature in a foreign language. Some of them f(3) emphasized the difficulty of accessing literature in the mother tongue. Some of the Master's students' views on the aforementioned theme are given below:

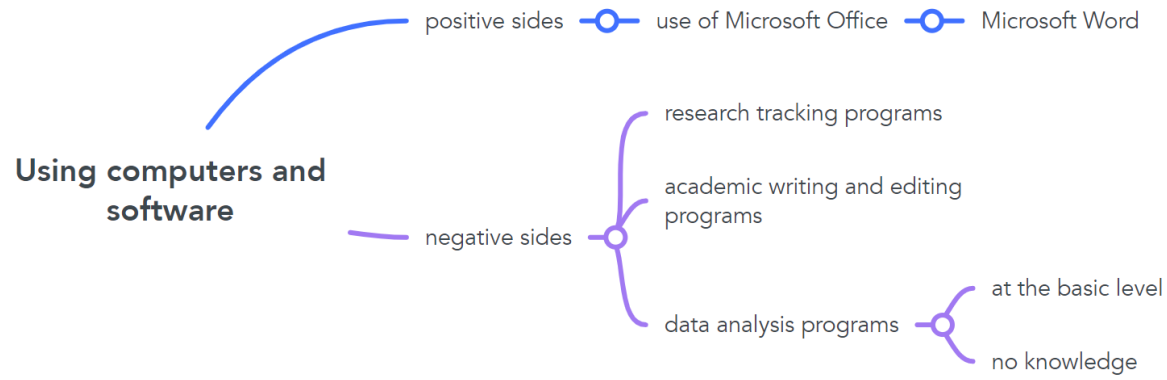
S3. I think that I've improved myself in accessing the literature. I can ask my friends and thesis advisor about the things that I don't know about literature review. I use the ways I learned while doing research.

S5. I think my professional efficacy is high. I don't think I have any problems accessing resources.

VIEWS ON SELF-EFFICACY IN USING COMPUTERS AND SOFTWARE

In Figure 8, Master's students' views on using computers and software that were categorized under views on data collection self-efficacy are presented.

Figure 8. *Views on Using Computers and Software*



According to Figure 8, Master's students' views on self-efficacy in using computers and software were grouped under two categories, positive and negative. On the positive side, the students f(9) emphasized their ability to use Microsoft Word. On the negative side, they f(8) mostly focused on the difficulties they experienced in using data analysis programs and stated that they either knew these programs at a basic level or did not know them at all. Again, some of them f(4) stated that they found themselves inadequate in using research tracking programs, while others f(3) stated that they were inadequate in using academic writing and editing programs. Some of the Master's students' views on the aforementioned theme are given below:

S1. I'm not proficient in programs other than Office.

S2. I can use Office programs effectively. In the SPSS program, I can do simple operations, so I am inadequate. I've heard of research tracking and word processing programs, but I don't use them.

S3. I think I have shortcomings in using the computer. I can use Word from Office programs. I don't know how to use data analysis programs. While researching articles, I sometimes come across the Researchgate site. I think I'm better at using national databases. I'm having problems when using databases of foreign sources because of my shortcomings with a foreign language.

S4. I don't use database programs at all.

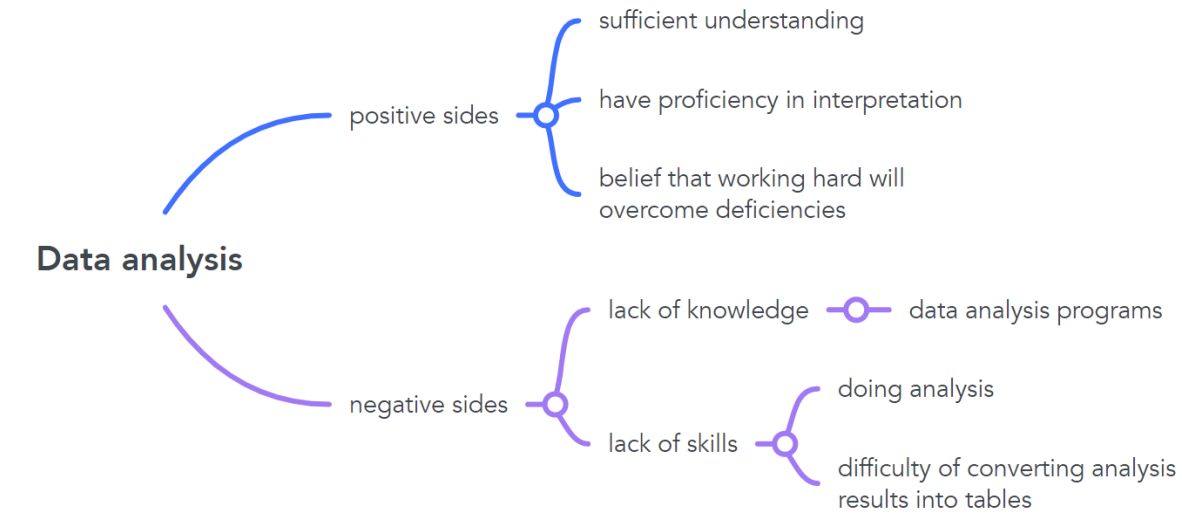
S7. I think that I use the computer programs I may need well but I am not very assertive in this regard. I don't use research tracking programs such as Mendeley, Researchgate, or academic word processing programs such as Endnote.

S9. I've never used the mentioned word processing programs. I have a hard time doing statistical analysis. I don't think that I am adequate in putting into practice what I know theoretically.

VIEWS ON DATA ANALYSIS SELF-EFFICACY

In Figure 9, Master's students' views on self-efficacy in data analysis are presented.

Figure 9. *Views on Data Analysis*



According to Figure 9, Master's students' views on self-efficacy in data analysis were grouped under two categories, positive and negative. On the positive side, most of the students f(4) believed that working hard will overcome shortcomings. Some of them f(2) believed they had sufficient understanding and proficiency in interpretation. On the negative side, most of them f(8) believed they lacked knowledge and a significant majority f(5) thought they lacked skills. They stated that they felt inadequate in doing analysis and had difficulty converting analysis results into tables. Some of the Master's students' views on the aforementioned theme are given below:

S2. I am a research consumer. Even though I am incapable of doing analysis, I can understand and interpret the results.

S4. I just started learning data analysis.

S7. I haven't done any work in this sense yet, but I think I'm good at interpreting statistical data on some simple subjects.

S9. I understand and interpret the results fine, but I don't think I can do the analysis part.

S10. I've difficulties in the analysis part, I may have difficulties in using statistical programs and converting the data into tables but I don't have any trouble understanding it.

VIEWS ON ACADEMIC SOCIALIZATION SELF-EFFICACY

Master's students' views on self-efficacy in academic socialization were grouped into categories such as views on participation in symposiums, congresses, workshop events, and concerns, and views on communication with faculty members and thesis advisors.

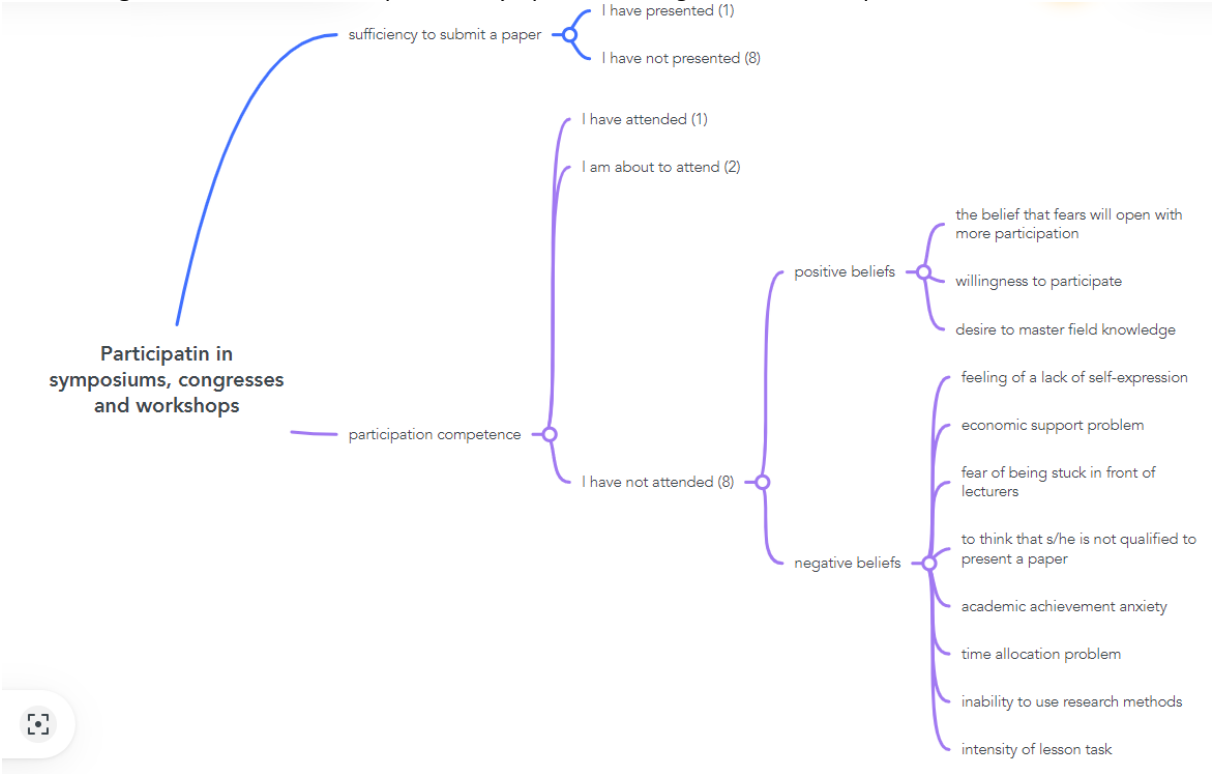
Table 4. *Sub-categories of Views on Academic Socialization Self-efficacy*

Views on academic socialization self-efficacy	Views on the participation in symposiums, congresses, workshop events, and concerns
	Views on the communication with faculty members and thesis advisors

VIEWS ON PARTICIPATION IN SYMPOSIUMS, CONGRESSES, WORKSHOP EVENTS, AND CONCERNS

In Figure 10, Master's students' views on participation in symposiums, congresses, workshop events, and concerns are presented.

Figure 10. *Views on Participation in Symposiums, Congresses, Workshop Events, and Concerns*



According to Figure 10, the majority of Master's students did not present a paper at a symposium, congress, or workshop. Only a limited number of students (3) stated that they presented papers. In addition, the majority of the students expressed that they did not participate in a symposium, congress, or workshop, and in this context, they believed that they would be more competent when they improve their knowledge related to the field. They were willing to participate in these events and believed that they would gain further knowledge related to the field by attending them. However, they stated that they had negative beliefs about participation in these events due to problems such as not having economic support, worries about their presentation performance would be low, worries about being stuck in front of faculty members listening to them, not having the competence to present a paper, anxiety about academic success, problems with time management,

inability to use research methods, and the intensity of their course tasks. Some of the Master's students' views on the aforementioned theme are given below:

S1: I haven't attended any congresses or symposiums until now. In the coming months, I'll attend two congresses and present papers. I am nervous about presenting a paper and I'm afraid of being stuck in front of academics who are experts in their fields but I think that this fear can be overcome by attending congresses.

S2: I didn't go because I couldn't spare enough time.

S3: The symposiums I attended as a listener are quite a lot, but there is no event I attended to present a paper, I would like to participate, but I think that I don't have enough economic support. Not being able to have academic success and the probability of facing this in the future worry me.

S4: I didn't submit a paper. I participate in activities that interest me professionally but it is very difficult to find economic support for high-cost events such as congresses.

S5: I can participate. I can say that I was more active in terms of participating in such events during my undergraduate years. I had three poster presentations at four congresses I attended, one of which was oral. This year, however, I worked my fingers to the bone doing the course tasks. There are symposiums and congress events that I'll attend soon.

VIEWS ON COMMUNICATION WITH FACULTY MEMBERS AND THESIS ADVISORS

In Figure 11, Master's students' views on communication with faculty members and thesis advisors are presented.

Figure 11. *Views on Communication With Faculty Members and Thesis Advisors*

According to Figure 11, the majority of the students (6) found the communication originating from them with the faculty members and thesis advisors adequate. Regarding communication originating from faculty members, the majority of the students (5) found the communication of faculty members adequate, whereas some found it inadequate (3) and partially inadequate (1). The insincere

behaviors of the faculty members, difficulty to get along with them, their personal characteristics, and the communication problems caused by them are the reasons cited by the students for faculty members' inadequacy. Positive thoughts such as sincerity, unlimited communication time, helpful behaviors, and reconciliation despite being in different fields are mentioned for communication originating from thesis advisors. Some of the Master's students' views on the aforementioned theme are given below:

S1: I still keep in touch with the staff members I took lessons from in my undergraduate years academically and socially. I can communicate with my thesis advisor in a very positive and healthy way about my academic studies.

S2: Since I didn't come to the thesis stage, I can only talk about my communication with the staff members I took lessons from. I haven't had any problems so far and they all try to help as much as they can. In short, I can say that I find the communication adequate.

S4: I didn't have any trouble communicating. Even though we are from different professional groups, I think we can meet on common ground.

S5: There are moments when I fail to communicate with some of the staff members I took courses from, and I don't associate this with myself. Personality traits directly affect the communication process.

VIEWS ON OTHER FACTORS AFFECTING ACADEMIC SELF-EFFICACY

In Figure 12, views on other factors affecting academic self-efficacy are presented.

Figure 12. *Views on Other Factors Affecting Academic Self-efficacy*

According to Figure 12, Master's students' views on other factors affecting academic self-efficacy were grouped under two categories, positive and negative. On the positive side, the majority of the students emphasized the most the detailed research stages f(5) and the lack of self-regulation f(5). Some of them f(3) mentioned changes in personal life such as health and familial problems and environmental factors, while some of them f(3) mentioned lack of time management, some of them f(4) mentioned the effects of some academicians who ignore student development. Also, some of them talked about the effect of bad communication with the faculty members on motivation for courses. Additionally, students mentioned work-life fatigue as the competition of confreres f(4), distance problem between the city of the university and the city that the student lives f(2), positive contributions of work life will be seen after graduation f(3), courses to be on the same hours as work hours that disability for getting permission for attendance to courses. On the positive side, they listed making good friendships in a classroom with few people f(6), academicians trying to find solutions to problems f(2), competition f(3), glorifying words of people in a social environment f(1), disallow the negative effects of external environment f(1). Some of the Master's students' views on the aforementioned theme are given below:

S1. Changes in my life caused me not to spare time because I can only focus on one thing in nature. I lack self-regulation and discipline.

S3. Positive things affecting my academic efficacy are establishing good friendships in a class atmosphere with a small number of people and becoming like a family, certain academicians trying to find solutions to problems, and people's words in my social circle honoring me. The negative effects are the things some academicians do only for the sake of improving themselves, acting without caring about the student and not empathizing with them.

S4. In my undergraduate years, we only worked for the coming business life. But we were never shown different fields of study. I think individuals who can help science should be encouraged. Not only for future professions but also potential students who can read an article and evaluate a data table should graduate. Can a nursing or midwifery student read the data sheet of an academic study right now? I think the answer to this question is our shortcomings. Students should have the opportunity to make experiments and observations in the practice rooms.

S5. The bad communication of some faculty members, which you cannot understand the reason behind, can disrupt your motivation for the lesson. The tiredness of work life can sometimes break the desire.

S7. My biggest obstacle during my graduate education was working. This was the most challenging and negative factor for me.

S8. The competitive environment has always affected me positively. I can only affect myself negatively. I don't experience any negativity caused by someone else.

S10. Going to a school in another city for graduate education can be tiring and troublesome. It restricts time management for collaborative work. Positive contributions to work-life will be seen after graduation. However, the fact that the classes are within work hours can cause stress such as making it difficult to attend classes, getting permission from work, etc.

DISCUSSION, CONCLUSION, AND IMPLICATIONS

As a result of the analyzes made for the first research question, in terms of Master's students' self-efficacy in academic writing, it was concluded that the work discipline was the most effective, that they were adequate in preparing homework and they were meticulous, but they were inadequate in preparing projects, articles, books and book chapters. Despite their stated inadequacies, students believed that they need to improve themselves by reading and were aware of the need for sharing.

They had the desire and effort to write in this context. In addition, students had anxiety about writing a thesis. The study results showed that the education they received on thesis writing was inadequate, and their prior knowledge and readiness level on this subject is low. According to Bandura (1996), academic self-efficacy is a belief. It is the belief in one's ability to regulate and execute the action plans necessary to achieve the given learning objectives. The results of many studies revealed that there is a relationship between academic self-efficacy and academic achievement/academic performance (Zimmerman & Bandura, 1994; Chemers, Hu & Garcia, 2001) and that academic self-efficacy is even a good predictor of academic achievement (Ferla, Valcke, & Cai, 2001). 2009). Chemers, Hu, and Garcia (2001) determined that academic self-efficacy is also related to coping perceptions such as difficulty and threat assessments. In other words, those with high academic self-efficacy cope with difficulties more easily and overcome them. According to the results of the present study, the Master's students participating in the study were experiencing some problems with academic writing. Despite these problems, it was also revealed that the students believed in the work discipline and thought that they would be more successful by making more effort. In this context, the participants had academic self-efficacy and believed that they can solve the problems they encounter with their own efforts.

Within the scope of the second study question, it was concluded that Master's students mostly experienced inadequacy in research methods and techniques. In this context, students were indecisive about which method and technique they will choose, they found their existing knowledge level low, they felt inexperienced, and they needed to do more research. There are studies in the literature supporting this result of the present study. In his study, Aslan (2010) determined that the Master's students doing their graduate degrees in the Turkish education program saw themselves as inadequate mostly in terms of research methods and techniques. Khozaie et al. (2015) stated that Master's students lacked knowledge about research methodology. Kan and Gedik (2016) also determined that the participants who did Master's thesis had problems especially in writing the main sections of the thesis. The present study and the studies mentioned above put forth that Master's students have problems in writing the method section. The writing of the method section is important in terms of academic writing. However, there are problems in producing qualified academic writing at the graduate level. Nolan and Rocco (2009) also considered the difficulty in academic writing at the professional level to be a national problem facing American higher education.

As a result of the analyzes made for the third research question, it was concluded that Master's students felt inadequate in using the terminology related to the field during data collection. In this context, they felt inadequate in reading and understanding the articles written in foreign languages. In addition, according to the students' views, they were adequate in using Microsoft Office programs, especially Word, but they were inadequate in academic tracking programs, academic writing programs, and data analysis programs. They emphasized that they were adequate in accessing and reviewing data in Turkish, but they were inadequate in foreign language searches. There are similar research results in the related literature. Kotamjani, Samad, and Fahimirad (2018) determined that the areas where graduate students have the most difficulty in academic writing are literature review, writing the introduction section, and identifying the gaps in the research. Aslan (2010) revealed that most of the graduate students (including Ph.D. students) who participated in the study did not consider themselves adequate in a foreign language and could not use international resources sufficiently. Phakiti and Li (2011) determined that graduate students whose second language was English and who were studying in Australia had problems in academic reading and writing and synthesizing information. Kan and Gedik (2016) also revealed that the participants who wrote their master's thesis could not use foreign resources enough. Similarly, Almatarneh, Rashid, and Yunus (2018) put forth that Jordanian graduate students studying at Malaysian universities could not create critical discussions and ideas in a foreign language (English) and had problems finding international resources. In the globalizing world, knowing a foreign language has become a necessity, not an extra characteristic. The importance of knowing/using a foreign language is an undeniable reality, especially for the academic community. In

the graduate theses/dissertations/articles, it is necessary to use international literature in all the steps starting from the literature review to the discussion section, the last section of the study.

Within the scope of the fourth study question, it was concluded that the Master's students considered themselves quite inadequate in data analysis. Students associated this with a lack of skills and stated that they had difficulty in converting the analysis results into tables. However, they also believed that they would overcome this situation by working hard. Aslan (2010) also determined in his study that Master's students considered themselves inadequate in data analysis programs. Similarly, Yu (2020) revealed that inadequate research skills and limited expertise can cause a lack of confidence. Graduate students need to be adequate in data analysis. One of the sections that they should pay the most attention to in the theses they will write is the data analysis section. Errors in data analysis will cast a shadow over the reliability of the research.

As a result of the analyzes made for the fifth research question, it was concluded that Master's students thought that they are adequate in academic communication with the faculty members and their thesis advisors. They stated that the academic communication originating from the thesis advisors was adequate, but the communication originating from the other staff members whom they took courses from was inadequate. In their study, Arabacı and Smart (2013) determined a finding contrary to the findings of the present study. They determined that the majority of the participating Master's students had communication problems with their advisors. Similarly, Matin and Khan (2017) revealed that students had inadequate and irregular meetings with their advisors. There are many studies in the literature on the importance of the advisor-student relationship. Khozaei et al. (2015) stated that the behavior of advisors and their relationship with their students is important. In their study, they determined that advisors who do not trust their students' abilities and make ambiguous or harsh comments negatively affect students' work. They also argued that mutual trust between advisors and students plays an important role in the completion of a Ph.D. dissertation. McCallin and Nayar (2012) stated that advisors have an important role in the education of students. Likewise, Gill and Burnard (2008) expressed that effective advising can significantly affect the quality and eventual success or failure of the doctorate. These studies show that effective communication between the advisor and the student has a very important place in the education of graduate students.

Within the scope of the sixth study question, it was concluded that Master's students' academic self-efficacy was negatively affected because of research stages being too detailed and students having low self-control. In addition, health, family problems, changes in personal life, environmental factors, and inadequacy in time management also affect students' academic self-efficacy. Other individual factors were work fatigue, the distance between the university and where the student lived, and getting permission from work to participate in classes and to keep up with studies. Furthermore, there were some factors affecting Master's students' academic self-efficacy stemming from the academicians. They were listed as ignoring student development, having negative communication, and not being able to motivate the student in the class. The fact that the fruits of graduate education will be seen after a long time also affected students' self-efficacy negatively. Despite these, they stated that academic self-efficacy is positively affected by the interaction of qualified students, problem-solving academics, good competition, the presence of positive tendencies in the social environment, and the ability to ignore the negative effects of the external environment. According to this result of the research, many factors affect the academic self-efficacy of graduate students. We can classify these factors as internal and external factors. In his study, Satıcı (2013) determined that academic self-efficacy levels of individuals increase as academic achievement, academic motivation, and academic locus of control increase, but academic self-efficacy levels of individuals decrease as the level of academic external locus of control increases. In their study, Dinther, Dochy, and Segers (2011) state that self-regulation and goal setting are components of students' academic self-efficacy. Khozaei et al. (2015) stated that the negative attitudes of the counselors negatively affect the students' work. According to the results in the literature and this research, graduate students can increase their self-

efficacy by keeping internal factors under control. Students with increased self-efficacy can focus on their academic success without being dependent on external factors. This will increase their academic achievement.

AUTHOR CONTRIBUTION

- The first author has made substantial contributions to conception and design, acquisition of data, or analysis and interpretation of data. The contribution percentage of the first author to the article is 60%.

-The second author have been involved in drafting the manuscript or revising it critically for important intellectual content. The contribution percentage of the second author to the article is 40%.

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