An Assessment of Undergraduate Students' Self-Regulated Online Learning Status in Emergency Remote Learning Period: An Example of EMU Faculty of Education

Melek Karabaş

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Approval of the Institute of Graduate Studies and Research

Prof. Dr. Ali Hakan Ulusoy
Director

I certify that this thesis satisfies all the requirements as a thesis for the degree of Master of Science in Information and Communication Technologies in Education.

Prof. Dr. Ersun İşçioğlu
Chair, Department of Computer Education and Instructional Technologies

We certify that we have read this thesis and that in our opinion it is fully adequate in scope and quality as a thesis for the degree of Master of Science in Information and Communication Technologies in Education.

Prof. Dr. Ersun İşçioğlu
Supervisor

Examining Committee

1. Prof. Dr. Ersun İşçioğlu

2. Asst. Prof. Dr. Fahme Dabaj

3. Asst. Prof. Dr. Damla Karagözlü

ABSTRACT

The emergence of the Coronavirus (Covid-19) pandemic has seriously affected education as it has affected many diverse fields around the world. As a result of this condition, many educational institutions made a quick transition to emergency remote learning, hence lessons were pursued online. As a result of this, students took their courses online in this process. The concept of self-regulated online learning has become an important concept during the emergency remote learning period. The aim of this thesis is to examine the self-regulated online learning status of undergraduate students studying at the Faculty of Education, Eastern Mediterranean University during the emergency remote learning period. The study was conducted as a quantitative research. For data collection tool, the "Self-Regulated Online Learning Questionnaire (SOL-Q)" developed by Jansen, Van Leeuwen, Janssen, Kester, and Kalz (2017), which was later adapted into Turkish by Yavuzalp and Özdemir (2020) was utilized.

As a result of this study, it was determined that the general status of students' self-regulated online learning is good. In addition, the findings show that based on the sub-dimensions the self-regulated online learning status of students in respect to their metacognitive skills and time management is average; while environmental structuring, persistence and help seeking are good. In addition, when the self-regulated online learning status of the students were examined in terms of students with and without previous online learning experience, it was determined that their status was good in both groups. In other words, it was revealed that previous online learning experience did not generally make a difference on students' self-regulated online

learning status. When the online learning experiences of the students were compared in terms of sub dimensions, it was seen just in the time management sub-dimension, the students who had previous online learning experience were in good condition, while the students who were inexperienced in online learning could be described as average. Except for the time management sub dimension, there was not detected any noticeable difference between the two groups (with and without online learning experience).

Keywords: Self-Regulated Learning, Online Learning, Self-Regulated Online Learning, Emergency Remote Learning, COVID-19 Pandemic.

ÖZ

Koronavirüs (Covid-19) salgınının ortaya çıkması, dünya çapında birçok alanı etkilediği gibi eğitimi de ciddi şekilde etkilemiştir. Birçok eğitim kurumu bu dönemde uzaktan eğitim yöntemine acil geçiş yapmış ve derslerini çevrimiçi olarak sürdürmüştür. Dolayısı ile öğrenciler bu süreçte derslerini çevrimiçi olarak almışlardır. Öz-düzenlemeli çevrimiçi öğrenme bu dönemin önemli bir kavramı konumuna gelmiştir. Bu tez çalışmasında, Doğu Akdeniz Üniversitesi, Eğitim Fakültesi'nde okuyan lisans öğrencilerinin acil durum uzaktan öğrenme dönemindeki öz-düzenlemeli çevrimiçi öğrenme durumlarının incelenmesi amaçlanmaktadır. Çalışma nicel bir araştırma olarak planlanlanmıştır. Veri toplama aracı olarak, Jansen, Van Leeuwen, Janssen, Kester ve Kalz (2017) tarafından geliştirilen ve daha sonra Yavuzalp ve Özdemir (2020) tarafından Türkçe'ye uyarlanan "Öz-Düzenlemeli Çevrimiçi Öğrenme Anketi (SOL-Q)" kullanılmıştır.

Çalışmanın sonucunda, öğrencilerin öz-düzenlemeli çevrimiçi öğrenmelerinin iyi durumda olduğu tespit edilmiştir. Ayrıca bulgular, öğrencilerin öz-düzenlemeli çevrimiçi öğrenmedeki, alt boyutlara göre üstbilişsel becerilerde ve zaman yönetiminde orta; çevresel yapılanma, ısrar ve yardım aramada iyi durumda olduklarını göstermektedir. Ek olarak, öğrencilerin öz-düzenlemeli çevrimiçi öğrenme durumları, daha önce çevrimiçi öğrenme deneyimi olan ve daha önce çevrimiçi öğrenme deneyimi olmayan öğrenciler açısından incelendiğinde de her iki grubunda durumlarının iyi seviyede olduğu tespit edilmiştir. Bir başka ifade ile daha önceki çevrimiçi ders tecrübesinin öğrencilerin, öz-düzenlemeli çevrimiçi öğrenme durumları üzerinde genel olarak önemli sayılabilecek bir fark yaratmadığı ortaya çıkmıştır.

Öğrencilerin çevrimiçi tecrübeleri alt boyutlar açısından karşılaştırıldığında, sadece zaman yönetimi alt boyutunda, daha önce çevrimiçi öğrenme deneyimi olan öğrencilerin durumlarının iyi olduğu, çevrimiçi öğrenme konusunda deneyimsiz olan öğrencilerin ise orta durumda nitelendirilebilecekleri belirlenmiştir. Zaman yönetimi alt boyutu dışında iki grup (çevrimiçi öğrenme deneyimi olan ve olmayan) arasında önemli bir farklılık tespit edilmemiştir.

Anahtar Kelimeler: Öz-Düzenlemeli Öğrenme, Çevrimiçi Öğrenme, Öz-Düzenlemeli Çevrimiçi Öğrenme, Acil Durum Uzaktan Öğrenme, COVID-19 Salgını.

DEDICATION

To my precious and supportive family.

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INTRODUCTION

At the beginning of 2020, the Coronavirus (Covid-19) pandemic emerged and spread rapidly all over the world. Covid-19 has severely affected students, educators and educational institutions as well as various professions and fields around the world. As soon as this situation emerged, traditional, face-to-face educational activities were suspended in order to protect public health and lessons were continued with remote education as an alternative way. For this reason, the authorities of schools, colleges and universities have chosen remote education to maintain lessons (Adnan & Anwar, 2020).

Emergency remote learning is an online education model used as an alternative way in situations where a face-to-face education environment cannot be provided (Aldhahi, Alqahtani, Baattaiah & Al-Mohammed, 2021). Moreover, the researchers Hodges, Moore, Lockee, Trust and Bond (2020) stated that the main objective of emergency remote learning is to provide temporary and fast solutions in order to continue education in times of crisis and to prevent educational activities from suspension completely. The use of emergency remote learning due to the Covid-19 distruption resulted in students and teachers having classes over the internet via online learning technologies (Sezgin, 2021). Although, most of the students while studying in a face-to-face learning environment, they were introduced quickly with the remote learning, and a different learning period started for them. Since emergency distance education

is not a pre-planned education model and hence cannot entirely satisfy the educational needs, it should be applied in a manner that permits it to be switched back to the previous education model after the crisis period is over (Hodges et al., 2020). Situations which may affect online education in the future may arise if emergency remote learning model is not explained correctly during the Covid-19 period. Situations that may arise include students and teachers perceiving distance learning positively and including it in the learning process, or on the contrary, they can avoid online education environments by perceiving it negatively and evaluating it as impracticable (Aguilera-Hermida, 2020).

Over the years, the development and innovations of technology has influenced and diversified various fields, and the field of education have also benefitted from these technological development. In education, one of the most utilized methods facilitated by technology is online learning (Coman, Tîru, Meseșan-Schmitz, Stanciu & Bularca, 2020). In this period of emergency remote learning, online learning have gained even more importance. Online learning is the understanding of the student to access online content by individually and benefit from these contents as much as possible, to seek help and assistance from teachers and peers through communication tools via internet, and ultimately to developing individually in order to accomplish a purposeful learning result with the learning experience in the online environment (Ally, 2004). However, it is not possible to achieve success in online learning by applying internet technologies alone. Therefore, to accomplish considerable success for the learning process, the learning environment should be structured by considering the pedagogical aspect of online learning (Erturgut, 2008). The learning status that takes place in the pedagogical sense is defined as the student's producing new information and constructing a

meaning of the information innerly by assimilating and identifying the intelligence with the previous knowledge (Anderson, 2008).

Online learning is a planned and structured learning model that is carried out without being in a physical atmosphere, possesses a pre-prepared infrastructure and framework, is coordinated with specifically designed course contents, and is transmitted through technology (Moore & Kearsley, 1996).

Another obvious distinction between online learning and emergency remote learning besides pedagogical considerations, is that online learning is well planned and designed in advance. Since the curriculum prepared for face-to-face education was quickly modified for emergency remote learning in the Covid-19 period, neither all students nor all instructors were trained for this education model, so there can not mention the actual online learning experience in emergency remote learning (Shisley, 2020).

In such a period, one of the effective way to continue and manage the lesson is to benefit from the Learning Management Systems and virtual course software (Keleş & Özel, 2016). Learning Management Systems are software programs to provide systematically implementing, managing and measuring educational activities (Kasim & Khalid, 2016). Students and teachers can manage, perform the lesson and communicate without being in the same physical environment over the internet using Learning Management System software such as Moodle, Blackboard, Canvas, etc. (Ghosh, Nafalski, Nedic, & Wibawa, 2019). LMS tools generally contains the features like chat, discussion board, upload homework, notes, file sharing, test or exam section and video conference. In addition, Kerimbayev, Nurym, Akramova and

Abdykarimova (2019) mentioned that Learning Management Systems provides education-oriented Information and Communication Technology (ICT) services opportunities by offering more flexible features than traditional education, as well as video conferencing, using online materials and sharing online assignments. For this reason, Can (2020) suggested that higher education institutions should have the equipment to develop and improve the infrastructure of the remote education center and to provide live lessons. In addition to during the emergency remote learning period, all lessons in the Eastern Mediterranean University were organized online via the use of Moodle and Microsoft Teams to facilitate a synchronous learning process.

In reference to the COVID-19 pandemic period, Mukhtar, Javed, Arooj and Sethi (2020) stated that in online learning environments (OLEs), students can easily manage their own learning. Because, online learning supplies occasions for learners to control, observe, and reflect on their occupied understanding (Means, Toyama, Murphy, Bakia, & Jones, 2009). Students take extensive part in their own learning process, in the online learning environments (Hong, Lee & Ye, 2021). Moreover, in order for students' engagement in the course and to get them more concern with the content of the lesson in online learning, the teacher should create a discussion environment for the students, create online materials with rich content, and give assignments or projects that can be prepared individually or in groups (Riggs, 2020). Students should have skills such as using their time well, searching for the correct resources on the internet, using LMS tools accurately, communicating effectively with teachers and peers, etc. to manage and observe their own learning processes on online learning (Aguilera-Hermida, 2020). While students learn by themselves, being motivated, their belief in

success, capability to complete a goal and getting satisfactory results are important in terms of academic performance (Lin, Lin & Lafey, 2008).

The concept of “self-regulation” has gained emphasis on students’ self-learning based on intent to accomplish their learning objectives, using Learning Management Systems tools, and online sources effectively to motivate themselves to study displays a positive impact on academic achievement in the online learning environments (Barnard, Lan, To, Paton & Lai, 2009). Self-regulation is "individual desires, needs, goals and identity perceptions" (Halfon, Forrest, Lerner & Faustman, 2018, p. 115) and interactions with other people and human nature's regulation, well-being, relationships, learning of the ability to control energy, emotions, intentions, and attitudes in conditions that provide appropriate and good products to human being. Self-regulation includes managing actions and relationships with people and the environment at school, apart from academic duties. Accordingly, higher education institutions contribute to improving students' self-regulation by supporting student-centered learning environments (Duchatelet & Donche, 2019).

Self-regulated learning (SRL) encompasses research in education, educational psychology, and learning sciences (Greene, 2017). Also, the concepts of SRL and individual effectiveness are interconnected because students make choices and they are responsible for the consequences of those choices. By selecting and executing on specific knowledge, students acquire ideas about their talents in the situation of these events. If student's actions are useful, they may voluntarily determine to engage in related events in the future (Farah, 2011). Also, SRL is a case that needs to be addressed in higher education and previous education periods, as it supports life-long learning and contributes significantly to academic success (Babayiğit & Güven, 2020).

Self-regulated learners who exhibit higher levels on motivation, have positive attitudes towards learning. Students with self-regulated learning skills are talented at monitoring their learning process, observing knowledge, getting help where they are stuck and motivating themselves in online learning (Artino Jr & Stephens, 2009). Moreover, Dabbagh and Kitsantas (2004) mentioned that students in online learning environments have to increase their SRL qualificatios in order to achieve their learning goals on their own, however in the traditional classroom environment teachers can manage this situation and the learning process closely. In addition, Zimmerman (2002) defined self-regulated learners as individuals who specify targets for themselves, create appropriate strategies, and follow the learning process and reach the information they need through their own skills. Moreover, "self-regulation is not a mental ability or an academic performance skill; rather it is the self-directive process by which learners transform their mental abilities into academic skills" (Zimmerman, 2002, p. 65).

In addition, Güler (2015) listed the characteristics of students with self-regulated learning skills as follows: they are familiar with many cognitive strategies and know how to use them, they know how to plan, direct and control them to achieve their personal goals, they can create and structure learning environments, they put forward various strategies to prevent distractions in order to maintain concentration while performing academic tasks, and they are aware of how to access resources, how to use them, how to plan, how to evaluate their performance, how to organize their work. In sum, students will need to manage their learning processes while strengthening their SRL skills in online learning (Blau, Shamir-Inbal & Avdiel, 2020).

Self-regulated learning is divided into five sub dimension and the first one of these sub dimensions is metacognitive skills. Metacognitive skills are divided as before, during and after learning (Jansen et al., 2017). Self-regulation is associated with students' learning period to achieve course requirements relevant to their goals through being "metacognitively, motivationally and behaviorally active" (Zimmerman, 1989, p. 329). Self-regulated learning covers the monitoring relations between new knowledge and previous knowledge, combining suggestions into detailed formats, going over and transferring knowledge into relevant diagram, and metacognitively monitoring and modifying learning strategies corresponding to the needs of an assignment (Winne, 1996). In order to possess metacognitive skills planning, monitoring, and evaluating capabilities are necessary requirements (Flavell, Miller & Miller, 2002). Therefore, metacognitive skills have positive effects on academic achievement, learning performance and motivation (Veenman, Kok & Blöte, 2005).

Second significant sub dimension in self-regulated learning is time management. According to Pintrich, Smith, Garcia and McKeachie (1993), in self-regulated learning, time management is based on how students' effectively organize their environment and daily learning hours to achieve their learning objectives. Students who are conscious of time management in self-regulation, acquire positive academic, motivational and emotional conclusions in online learning. Kitsantas, Winsler and Huie (2008) argued that "metacognitive learning strategies and time management contribute to a successful academic career, it is important to note that these processes are intimately linked with certain motivational and affective beliefs" (p. 46).

Environmental structuring is also one of the important sub dimensions of online self-regulated learning. Zimmerman and Martinez-Pons (1986) argued that self-regulated

learners are good organizers in maintaining not simply their study, but also their study environment. Online learners must be able to design their own physical learning environments at home, even without a traditional classroom environment. The qualification to organize the student's work environment in a quiet, comfortable way without distractions provides effective learning in online education (Lynch & Dembo, 2004).

Persistence is about both avoiding distractions during the lesson and insisting on while completing the assignments and duties properly for students in self-regulated learning (Drake, Belsky & Fearon, 2014). Berge and Huang (2004) defined persistence as the student's participation in the lesson, fulfilling the requirements for the lesson, and being ready and determined to learn. In addition, Croxton (2014) mentioned that when students feel a meaning of community in the online course, the probability of their persistence skills will be stronger because the interaction between the student, peers and the instructor affects this situation.

Help seeking is a self-regulated learning approach that arises when students establishes and demands external source for support with individual learning duties (Zimmerman, 2000). Online environment maintains new facilities for academic help seeking, for instance, students can learn to perform the right inquiries on the websites or contact with their peers and instructors for solutions to problems via the internet (Cheng, Liang, & Tsai, 2013). In online learning environments, students may request support from the teacher or classmates by utilizing e-mail or through any online platforms. Besides, students may also request help for online group projects or individual homeworks using simultaneous communication devices.

Students' SRL abilities affect their academic achievement, performance and adaptation toward using technology and online learning. Hence, the ability of students' to motivate themselves, communicate effectively with instructors and classmates, manage time and use correct source on their own is demonstrates effective use of online learning environments. Accordingly, Zheng (2016) conducted a study on the effects of SRL scaffolds on academic performance in online learning environments. According to the findings, SRL scaffolds in online learning environments indicated a noticeable effect on academic performance.

Mayda, Erail and Karaduman (2020) conducted a study purpose was to examine the SRL skills used by faculty of sports science students in OLEs. 209 participants attended to the study as willingly at the University. SOL-Q is used for data collection. Based on the results of the study, noticeable difference was reported in the sub-dimensions of SOL-Q: metacognitive skills, environmental structuring, persistence, help seeking and the total scale for gender variable. They reported that there was no significant difference in SOL corresponding to the education department variable. In addition, Mayda et al. (2020) suggested that while the SOL skills used by sports science students in online learning environments vary as stated by the variable of gender they were approximately close of the variables of the department they study and the type of high school they have graduated.

Emergency remote learning during the coronavirus pandemic period has presented an unusual learning experience for most students. Additionaly, crucial to investigate of students' (teacher candidates') Self-regulated Online Learning (SOL) in this emergency remote learning experience in order to be prepared for a similar crisis situation that may be experienced in the future and to refer to the pedagogical aspect

of current education model. In the Turkish Republic of Northern Cyprus and the Eastern Mediterranean University, specifically little studies have been found in the literature. For this reason, there is a necessity to conduct such a study.

1.1 Purpose of the Study

The main aim of this study to investigate the self-regulated online learning status of undergraduate students to the Faculty of Education at the Eastern Mediterranean University.

1.1.1 Research Questions

In order to accomplish the above mentioned aim, this research will answer the following research questions:

I. What is the undergraduate students' self-regulated online learning in emergency remote learning period in respect to;

(1) metacognitive skills

(2) time management

(3) environmental structuring

(4) persistence and

(5) help seeking

II. What is the students' self-regulated online learning status according to with and without online learning experience in emergency remote learning period?

1.2 Significance of the Study

With the transition of schools to emergency remote education during the Covid-19 pandemic, the routine order of the education has also changed. It is a fact that the role of the student in the learning process has changed with online education, which has replaced face-to-face education. In this case, the responsibilities of students for their learning process has also increased and it has become almost a necessity for them to

organize their own learning. In this direction, this study gained more importance in terms of resource for the concept of self-regulated online learning to students, instructors and researchers in the Eastern Mediterranean University and also in the ICT field. Also, this study is very important in terms of to be guide students who desire to gain knowledge on self-regulated online learning.

This study is quite significant for the University to reveal the students' (teacher candidates) self-regulated online learning in emergency remote learning period to improve the standard of the education at Eastern Mediterranean University. Moreover, this study is important for fill the gap in the literature about self-regulated online learning at Eastern Mediterranean University.

1.3 Limitations

This study was carried out between the December and January of the 2020-2021 Fall semester which including Coronavirus (Covid-19) pandemic period. The study conducted with undergraduate students in the Eastern Mediterranean University Faculty of Education.

The most important limitation of this study is the Covid-19 outbreak. Because of the Coronavirus pandemic that distrupted the world, the courses were conducted over the internet about a year, and in this case, the students could not come to the campus. For this reason, the survey was distributed to the students as online, although it was an online survey, it was more difficult to reach to the students. Therefore this situation is effected our data collection procedures. Perhaps, students who have internet problems or troubles with the devices that they use could not be able to open the questionnaire link to fill out.

1.4 Definition of Terms

This section is provides relevant explanations of the key terms uses in this study.

Emergency Remote Learning: Emergency remote learning is a temporary education model in which face-to-face educational activities are suspended in periods of crisis and learning is continued online. This model is implemented in order to prevent interrupt in education, and is aimed at bringing together teacher and learner quickly with the solutions of online technologies (Sezgin, 2021).

Online Learning Environment: The online learning environment is a virtual platform where students and instructors do not need a physical space and sustained the lesson over the internet (Moore, 2016). Online learning environment is an online medium where the teacher guides the student in the learning process and shares the course contents and learning objects (Moore, Dickson-Deane & Galyen, 2011). Learning Management Systems, Virtual Learning Environment and Collaborative Learning Environment are all these terms corresponds to Online Learning Environments where learning is pursued over the internet through the use of these online learning environment tools (Moore et al., 2011).

Online Learning: The online learning is a format of remote learning that a course is purposely planned and structured to offer completely online via an online learning environment. Faculties use pedagogical techniques to offer online education like assessment, notes, video conference etc. in an online learning environment (Moore, Dickson-Deane & Galyen, 2011).

Self-Regulation: The self-regulation is to use mentally realized abilities to achieve success in individual learning by directing them for academic success (Zimmerman & Schunk, 2001).

Self-Regulated Learning (SRL): SRL includes the learners' benefit from the SRL methods, responding to self guided feedback on learning activities, and relevant motivational paths. Self-regulated learners choose, use and apply SRL methods to complete academic outcomes based on reaction on learning activity and accomplishment (Zimmerman, 1990).

Self-Regulated Online Learning (SOL): Self-regulated online learning is the process of self-adjustment and self-supervision in which learners are individually engaged, including the targets they set for use in the online learning environment, dealing with their mental status, and operating their performances (Zheng, 2016).

Chapter 2

LITERATURE REVIEW

The literature review comprise the related terms about this study and these terms are elaborated below.

2.1 Introduction

With the invention and development of the internet, technology has appeared more to engage in our lives. Education, which is the most important part of life, has also taken its share from this interaction and today technology is in almost every field of education. At this present time, it is necessary to follow up-to-date information and update current behaviors in order to fully benefit from technology (Dirin, Laine & Alamäki, 2018). Using technology has become an essential requirement conversely than a luxury (Tugun, Bayanova, Erdyneeva, Mashkin, Sakhipova & Zasova, 2020).

Every device that can connect to the internet brings technology such as mobile phone, tablet, and computers to our homes and even to our pockets. Bernacki, Greene and Crompton (2020) described that internet connected mobile devices provides to "learners the ability to communicate with peers, educators, experts, and the world, as well as interact with content" (p. 2) without restrictions. On the other hand, some technical requirement and equipments are required to maintain online education as internet access, computer, mobile phone, tablet etc.

2.2 Effect of Coronavirus Pandemic on Instruction

Since the outbreak of the Covid-19 pandemic, it has negatively affected instructional activities all over the world. Educational institutions suspended their educational activities in order to prevent the spread of the epidemic and tried to continue the lessons synchronously or asynchronously over the internet (Mustafa, 2020). Onyema, Eucheria, Obafemi, Sen, Atonye, Sharma and Alsayed (2020) conducted a study to investigate the impact of COVID-19 on education. That study emphasized the negative outcomes of Coronavirus on learning and the need for all educational institutions and student to accept technology, and develop their online learning capacities and skills in learning.

2.3 Emergency Remote Learning

Emergency remote learning (ERL) is a temporary learning mechanism, a transition from face-to-face instruction to alternative remote education model due to an emergency. ERL emerged as the education that took place during educational institutions' suspension, it is not online or virtual learning, since well-planned online learning experiences are substantially different from those that are delivered online in response to a crisis (Rahiem, 2020). The primary objective in this context is not to re-create a stable educational environment, but rather to provide immediate access to education and training in a manner that is easy to develop and easily accessible during an emergency or crisis (Hodges et al., 2020).

Ferri, Grifon and Guzzo (2020) conducted a study which was aimed at analyzing the opportunities and challenges of emergency remote learning based on experiences during the COVID-19 distruption. The results reveal several technological,

pedagogical and social challenges. The technological challenges are mainly related to the unreliability of Internet connections and many students lack of necessary electronic devices. The pedagogical challenges are principally associated with teachers' and learners' lack of digital skills, the lack of structured content versus the abundance of online resources, learners' lack of interactivity and motivation and teachers' lack of social and cognitive presence. The social challenges are mainly related to the lack of human interaction between teachers and students as well as among the latter, the lack of physical spaces at home to receive lessons and the lack of support of parents who are frequently working remotely in the same spaces.

2.4 Online Learning Environments

Online learning can be defined as pre-planned and pedagogical instruction delivered in a digital environment (Clark & Mayer, 2016). Online learning is thus becoming more important for education during the time of the worldwide health emergency like Covid-19 lockdown, offering the opportunity to remain in touch with instuctor and peers (Coman et al., 2020). Online learning environment includes instructional design and assessment methods to improve learner performance, acquire self-assessment skill and support learners to seek personalized feedback from teachers on their task performance. It also offers logically built-up sequences of tasks, being accessible, allowing learners to work on the tasks whenever they wish, wherever they have internet access (Gog, Sluijsmans, Brinke & Prins, 2010). Numerous kinds of internet resources that can contribute to the online education process, such as online materials, lecture slides, video lectures, shared assignments, access to forum messages, are the most frequently used online learning activities (Li & Tsai, 2017).

2.5 Online Learning Technologies

Since the Internet has been used in almost all fields, higher education institutions have also turned to using online learning technologies. Online learning technologies allow meaningful exchange of information at any distance within the framework of the student-teacher system. In addition, online learning offers students the opportunity to learn at their own pace and in their own fields (Leontyeva, 2018). Delivering online course content and course materials to students is possible using the Learning Management System (LMS) and virtual course software (Robinson, 2019). “LMS is a web-based software package that is designed to plan, implement and evaluate learning, facilitate student interaction, give performance feedback, and manage student activities” (Kasim & Khalid, 2016, p. 59).

Ramesh, Vermette and Chilana (2021) conducted a study on investigation of LMS usage around the world and they found that Canvas was the most used Learning Management System. Durak, Çankaya and İzmirli (2020) stated that Moodle and ALMS (Advancity Learning Management System) were the most used LMS among Turkish Universities in Coronavirus pandemic period. According to the information collected from the Universities web sites, the most used Learning Management Systems in Turkish Republic of Northern Cyprus (TRNC) universities were Moodle and Microsoft Teams respectively during the Covid-19 pandemic period. Also, in Eastern Mediterranean University, Moodle and Microsoft Teams software were used during Covid-19 pandemic period.

The rapid spread of the use of Learning Management Systems (LMS) has paved the way for knowledge sharing in higher education globally and has become one of the most important elements of acquiring knowledge in online learning. Learning

Management Systems such as Moodle contain many features like homework, quizzes, lecture notes, lecture videos, feedback, virtual video conferences and online materials and these can be shared with students (Eyt-Dessus, 2020). Adnan and Anwar (2020) conducted a study to determine students' perception on online education in Pakistan. The results of the study revealed that the desired results could not be obtained in online education because of the deficiency of technical and technological infrastructure. Students who do not have internet connection were behind in educational progress because they could not communicate with the teacher. In addition, the lack of communication with classmates and the fact that they could not be physically present in the same social environment also affected their success.

2.6 Self-Regulation in Education

Self-regulation is the process of learning to control an individual's behavior, emotions, and attitudes. It is very important in self-regulation to avoid distractions in the classroom, follow the classroom rules, conduct connection together teacher and classmates properly, follow the lesson carefully and to remember the requirements related in online course (Montroy, Bowles, & Skibbe, 2016). Moreover, Etkin (2018) stated that "When students become aware of their emotions and surroundings through mindful experiences, they can increase focus and self-regulation, while reducing high levels of anxiety and stress" (p. 38).

Students with high self-regulation are purposeful, goal-oriented and best manage their behavior to increase their academic performance (Xiao, Yao & Wang, 2019). Güler (2015) conducted a study examining the relationship between teacher candidates' self-regulation skills and their emotional intelligence and epistemological beliefs. According to the results of the research; teacher canditates' self-regulation skills and

emotional intelligence levels were found to be high. On the other hand, pre-service teachers' epistemological belief levels were found to be low. According to the findings of the research; emotional intelligence and epistemological beliefs significantly explained self-regulation skills.

Tsenga, Yib, and Yeh (2019) conducted a research of self-regulated online learning strategies, motivation and social skill impacts on academic achievement with 162 students who took online business management courses. As a result of the study, it was revealed that students with previous management experience have higher self-regulation and motivation. On the other hand, Sukowati, Mustadi, Putro and Pradewi (2020) investigated the motivation that can be obtained through self-regulation using a quantitative questionnaire on 155 primary school teacher education students. As a result of the research, they found that self-regulation has an important role in increasing students' motivation.

Additionally, Cheng (2011) defined self-regulated learning as “a process in which students think, feel and act on their own initiative in order to achieve their learning goals" (p. 5). Kizilcec, Perez-Sanagustín and Maldonado (2017) conducted a study titled "Self-regulated learning strategies predict learner behavior and goal attainment in Massive Open Online Courses". Results of their study proved that strategic planning and setting learning goals have a significant relationship to online learning.

2.7 Self-Regulated Learner Characteristics

There are various ways to list the characteristics of self-regulated learners. Magno (2009) reported that one of the essential self-regulated learner characteristic is that students have the capabilities of achieve the learning objectives and the process of

achieving those objectives. Self-regulated learners individually and independently work on their tasks, they manage and control their learning processes, set goals before beginning to learn, make a plan to study for an exam or test, manage their studying time effectively, develop their own strategies to complete and become successful in a lesson, thus increasing their academic performance. Yang (1993) indicated particular qualifications of self-regulated learner characteristics; self-regulated learners have improved self-learning skills, they monitor, evaluate and manage their own learning process, use their time effectively and shorten the time to complete the lesson and manage the lesson and time efficiently.

2.8 Self-Regulated Online Learning in Emergency Remote Learning Period

Self-regulated learning relates to a person's capability to understand and control his/her learning environment. Self-regulated learners have developed the abilities and habits for effective learning strategies such as self-monitoring, metacognitive skills, time management, effective communication with peers and instructor, help seeking and persistence (Schraw, Crippen, & Hartley, 2006).

According to Pintrich (2000) “learners set goals for their learning and then attempt to monitor, regulate, and control their cognition, motivation, and behavior, guided and constrained by their goals and the contextual features in the environment” (p. 453). In self-regulated learning, students should have the desire and ability to actively participate in the lesson, keep their motivation high, be strategic, be aware of their attitudes and specialize in self-learning, and set learning goals (Adam, Alzahri, Soh, Abu Bakar & Kamal, 2017).

In online learning, the teacher encourages students to think about and set up strategies to develop self-regulation skills. At the same time, the teacher guides students on questioning, correct resource use, and how to do research in online learning (Carter Jr, Rice, Yang & Jackson, 2020). In a nutshell, Bartolomé, Bergamin, Persico, Steffens and Underwood (2011) defined three self-regulated learning strategies for online learning as cognitive, metacognitive and resource oriented strategies. Cognitive is related with how learners choose, manage, and operate when learning information. Metacognitive is related with designing, observing and arranging the learning duration for proper use of learning techniques and cognitive strategies. Resource oriented strategies are related with the correct source usage in online courses.

Several self-regulated learning models have been created to deal with the motivational, emotional, metacognitive, cognitive, effective and behavioral aspects of learning (Panadero, 2017). Boekaerts (1996) developed a model named adaptable learning in which students' learning status is evaluated and learning goals are determined as a result of this evaluation. Borkowski (1996) created the process-oriented metacognition model which emphasizes that in order for self-regulated learning to take place, students should be able to choose the most appropriate one among the strategies they have learned. Pintrich (2000) developed the general framework for the self-regulated learning model. Pintrich (2000) states that this model developed covers motivational and cognitive processes and that many different motivational structures are related to self-regulation. This model consists of four parts: forethought, monitoring, control and reflection, and each part includes three stages: planning, monitoring, control and evaluation. Winne (1996) developed the four stage model of self-regulated learning. Winne (1996) considered metacognitive guidance as a learning process in its model.

This model consists of four stages: defining the task, setting goals, implementing strategies and tactics, and regulating metacognition.

One of these models was developed by Zimmerman (1989) and described interactions that affect self-regulated learning. Zimmerman's social cognitive model of self-regulated learning explained the interactions of person, behavioral and environmental factors in self-regulated learning. Person level is referred to as the cognitive state that includes remembering, monitoring, and adjusting. Behavioral level is connected with the behavioral state of self-observing, strategic planning, and the performance process. And environmental level is related with observing and adjusting environmental situations or results.

The model named as "A Triadic Analysis of Self-Regulated Functioning" by Zimmerman (1989) provides an example for each division of the triadic structure; person self-regulation is related with students' checking homework, the behavior self-regulation is related with the implementing of causation through use of strategies and environmental self-regulation corresponds to arranging a quiet study place for completing homework.

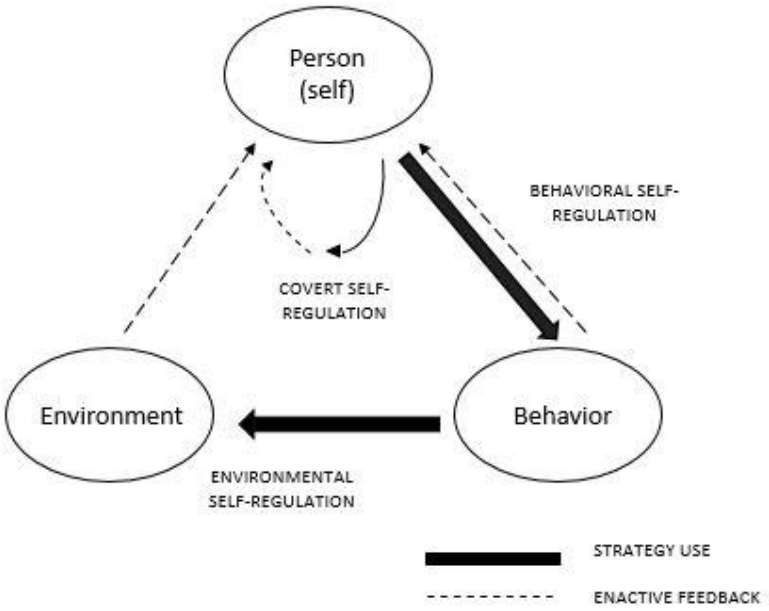

Figure 1: A Triadic Analysis of Self-Regulated Functioning (Zimmerman, 1989)

Self-regulated online learning is divided into five sub dimensions; metacognitive skills, time management, environmental structuring, persistence and help seeking based on the above mentioned Zimmerman (1989) self-regulated learning model.

2.8.1 Metacognitive Skills

Metacognitive skills improve one's self-learning, self-regulation and motivational control (Tanti, Syefrinando, Daryanto, & Salma, 2020). Adam et al. (2017) mentioned that when students utilize strategies connected to self-regulation in online learning, they can monitor their individual functioning and arrange from online learning environments.

Isaacson and Fujita (2006) conducted a study on examining the relationship between metacognitive knowledge monitoring and classroom performance. 84 undergraduate students participated in their study. Undergraduates were requested to determine the

amount of hours they worked, their grade of trust, and predict their test results after performing the test, but before the grade was presented. Successful undergraduates were identified to be better achievers in predicting their test results, more reasonable in their objectives, and more efficient in determining test questions to which they perceived the answer. Conclusively, their study highlighted the relationship between metacognitive knowledge tracking, self-regulated learning and academic achievement.

Kizilcec et al. (2017) conducted a study with 4,831 students to reveal the effects of self-regulated learning on academic achievement, examining interaction with course content, survey responses, and course success. The results indicated that students set higher individual aims in goal setting and strategic planning, but they set lower individual goals in seeking help, and that students' higher self-regulated learning abilities are constantly reviewed based on the materials and assessments used in the course.

2.8.2 Time Management

Time management can be defined as self-control in order to use time efficiently to achieve goals and using time effectively while performing certain purposeful activities (Wolters & Brady, 2020). Andrade and Bunker (2009) mentioned the time management in online learning is critical to preventing distractions and completing course-related activities on time for students. Kim, Lee, Hong and Han (2019) conducted an investigation of the relationship between time management and self-regulation strategies in a field study with 46 university students. They created an application to use for this investigation. This application was provided to improve students' time management awareness and indicated generally positive time management results in self-regulated learning.

2.8.3 Environmental Structuring

Environmental structuring is about choosing quiet, comfortable places and times with few distractions to study. On the other hand, designing effective and engaging learning environments requires the knowledge of the factors that influence students' learning and perceptions (Li, 2019). In online learning contexts, course design, interactions with instructors, and interactions with students are three factors having an influence on student' satisfaction with their online course (Swan, 2001).

Whipp and Chiarelli (2004) described the environmental structuring as "Finding fast computer and Internet connection; creating a psychological place for class" (p. 11). In summary, students with high self-regulation in online learning are successful in organizing and structuring their environment. They create the most suitable learning environment for themselves by organizing their own working environment in a convenient way at home or in another place where they can connect to the internet. Thus, they are ready for the lesson and learning, while avoiding distractions during online learning (Lynch & Dembo, 2004).

2.8.4 Persistence

For successful learning, learners should focus their attention, and persist when they are struggling (Zimmerman, 2002). Persistence reflects the student's capacity to engage consistently in a challenging task without becoming distracted or irritable, require emotional regulation, for instance student responding appropriately to provocations from peers, and controlling one's temper (Drake et al., 2014).

Kemp (2002) conducted a study on 121 student and classified them as persisters or non-persisters. Persistence is further divided into three independent variables which are: "resilience, life events and external commitments" (p. 67). Kemp (2002) defined

that those who finish the course with higher marks inclined in these areas develop strong connections, and they are able to distinguish between accurate and inaccurate, persisters thus building positive relationships.

2.8.5 Help Seeking

Karabenick and Berger (2013) defined help seeking as the process of seeking assistance from other individuals or other sources that facilitate accomplishing desired goals, which in an academic context may consist of completing assignments or satisfactory test performance. Seeking help that involves others either directly or indirectly renders it unique among self-regulated learning strategies. The student-teacher interaction is a prime example of an extended relationship with multiple instances of students asking for assistance and responses to their requests. Even technology mediated help seeking can be social when the presence of others is real, imagined or even implied (Karabenick & Berger, 2013).

Online learning environments provides more help seeking opportunities than traditional learning environments regarding decreased risk and struggle, better quality, comfort and satisfaction (Dabbagh & Kitsantas, 2004). In addition, while students are generally hesitant to asking questions due to lack of self-confidence in the face to face classroom environment, this problem is reduced and become advantageous when searching for help or asking questions in search engines or online learning environments (Hao, Wright, Barnes, & Branch, 2016).

2.9 Related Research

Ramesh et al. (2021) conducted an exploratory research to reveal most used LMS around the world in Covid-19 pandemic period. They analyzed the content of 250 posts from a community based forum for Canvas, a widely used LMS. The findings revealed

several recurring themes that illustrate how instructors are setting up courses for the first time, facilitating shared experiences between their students, and even seeking innovative ways to customize their course delivery. Research finding hihglighted on key barriers driving instructors to seek help and to what extent their help needs are actually addressed by the community.

Durak, Çankaya and İzmirli (2020) examined the Universities activities at the transition to emergency remote education in the Covid-19 pandemic in Turkey. They tried to contact with the people in charge of distance education process of Universities Distance Education Center and IT Department in Turkey and data were able to be collected from 33 of universities. According to the findings obtained from the research, the most used learning management systems in universities are Moodle and ALMS (Advancity Learning Management System) during Coronavirus pandemic in Turkey. It has been revealed that the most used live course software by universities are Big Blue Button and Perculus. It has been revealed that the number of Universities that can conduct all their courses synchronously is only six, and most of the Universities try to manage the processes through the previously established own learning management system and live course software. In addition, half of the Universities followed the attendance of the students in the course. Moreover, in Covid-19 pandemic period the most used Learning Management Systems in Turkish Republic of Northern Cyprus Universities were Moodle and Microsoft Teams.

Dowell and Small (2011) directed an examination of learners' establishing usage of online sources and the strategies of self-regulated learning. Study concentrated to the relation both online sources usage of learners' and comprehensive result during the learning of subject. 105 students from campus and 258 students from online education

participated in the study. This study results demonstrated of usage online resources an important impact to the learner' grades. Also, the results revealed that instructors can contribute to develop learners' self-learning strategies with providing plenty of resources to learners in online learning environments.

Ejubović and Puška (2019) carried out a study to investigate the self-regulated learning impact on academic performance and satisfaction of students according to five factors. These factors were goal-setting, metacognition, environment structuring, computer self-efficacy and social dimension. The results proved that all factors except goal setting showed meaningful impact on academic achievement. Also, the components of environmental structuring, social dimension, computer self-efficacy and metacognitive strategies found useful on account of satisfaction of learners.

Zhao and Chen (2016) compared that in China and Hong Kong online learners' self-regulated learning environmental variations and relationships between learner self-regulation and online education environments. Main aim was to investigate the research question of "How can SRL be supported properly in E-learning environment?" According to the study results, there were significant differences between China and Hong Kong online students on demographic variables without age variable however there was no difference on the relation model. Consequently, they suggested that self-regulation can be equal in the different two cultures and it can be influenced with the similar environmental variables.

Alharbi, Paul, Henskens and Hannaford (2011) investigated the different learning techniques and self-regulated learning strategies used by students in a basic computer science course. According to the results of the investigation, it was revealed that the

learning techniques preferred by the students had a significant effect on academic performance, metacognitive strategies were the least popular among students, and students were not aware of self-regulated learning strategies.

Bozpolat (2016) carried out a study to reveal the effects of strategies of the self-regulated learning on the third year students of Cumhuriyet University Faculty of Education on gender, academic self-efficacy and general academic average. Third-year students studying in 11 different departments of the education faculty of the university participated in the research. The results of the research revealed that gender, general academic average, and students' academic self-efficacy significantly predicted self-regulated learning strategies.

Hargis (2000) investigated the effect of variables such as age, gender, racial identify, attitude, aptitude, self-regulation in online learning. The aim of this study was to examine and introduce the effect of self-regulated online learning. The results showed that student characteristics are not barriers to online learning. Participants increased their scores after the pre- and post-evaluation. Self-regulated learning abilities are essentially important to increase academic achievement in online learning for students.

Shen and Liu (2011) conducted a study on metacognitive skills in online learning with 53 University students. They examined the participants by dividing them into experimental and control groups. According to the results, the students in the experimental group achieved significantly more gains in self-planning, self-monitoring and total score compared to the control group.

Im and Kang (2019) conducted a study in Korea. A total of 1,832 student participated from a Korean Cyber University. According to results of the study, a comprehensive management of learners' psychological variables; such as self-regulation, is important to online learning for the organizations for learner support.

Chapter 3

METHODOLOGY

This chapter included the research method of, participant information, data collection tool, data analysis and information about the reliability and validity of the study.

3.1 Research Method

For conducting this research, a quantitative research approach and survey method will be utilized. Quantitative research is the phenomena in which analysis that make use of mathematical techniques are explained by gathering quantitative data. Quantitative research is dealt to collecting, interpreting and analyzing data that is organized and can be describe numerically (Sukamolson, 2007). Data gathered during a quantitative research study is usually represented in percentages, averages, charts, graphs, and tables. Methods used include surveys, questionnaires, and experiments in the quantitative research. Eventually, using quantitative research methods provides researchers to take satisfactory results to focus on a research problem properly (Morrow, 2021).

Survey approach is a quantitative research technique used for collecting data from a predefined group of participants. Check and Schutt (2012) described the survey method as obtaining information from a sample group through their answers for predetermined research questions. Survey approach provides the opportunity to collect data from communities of large or small size populations (Ponto, 2015). The main aim of this kind of screening research is to gather information describing the characteristics of a broad sample of interested individuals quickly. The researcher chooses a sample

and participant group from a community and applies questionnaire to them in the survey approach. "Surveys provide a means of measuring a population's characteristics, self-reported and observed behavior, awareness of programs, attitudes or opinions, and needs" (Kabir, 2016, p. 244). The quantitative survey can be a printed document filled out by the individual examined, an online survey, a face-to-face dialogue, or a paper-pencil-questionnaire (Freeman, Yorke & Dark, 2019). Furthermore, the survey method was used in the application of the online questionnaire to determine the self-regulated online learning status in emergency remote learning period in respect to Faculty of Education undergraduate students.

3.2 Participants

This research was applied to the undergraduate students of the Eastern Mediterranean University registered in the Faculty of Education during emergency remote learning period (Covid-19). Initially, the researcher attempted to reach all the undergraduate students, total 139 students participated in the online survey. The participants were from eight different departments within the EMU Faculty of Education as follows: Computer and Instructional Technologies in Education, Educational Sciences, Primary Education, Fine Arts Education, Foreign Language Education, Mathematics and Science Education, Special Education, Turkish and Social Studies Education.

Table 3.1: Students' Demographic Information Frequencies

Gender	**Frequency (F)**	**Percentage (%)**
Female	109	78,4
Male	30	21,6
Age	**Frequency (F)**	**Percentage (%)**
18-20	55	39,6
21-25	65	46,8
26-30	14	10,1

"Table 3.1 (continued)"

31+	5	3,6
Year	**Frequency (F)**	**Percentage (%)**
1	33	23,7
2	34	24,5
3	24	17,3
4	48	34,5
Internet Connection	**Frequency (F)**	**Percentage (%)**
Yes	139	100
No	0	0
The Ways to Access to the Online Course	**Frequency (F)**	**Percentage (%)**
Computer	78	56,1
Cell Phone	52	37,4
Tablet	9	6,5
Online Course Experience Before	**Frequency (F)**	**Percentage (%)**
Yes	58	41,7
No	81	58,3

Demographic information frequencies and percentages of the participants are represented above in Table 3.1. As it is seen in Table 3.1, a total of 139 students participated in the research, 78,4% (109 students) were represented Females and 21,6% (30 students) were represented Males.

There are shown four different age groups placed in the table. Among those who participated in the survey; there are 39,6% (55 students) represented ages between 18-20, 46,8% (65 students) represented ages between 21-25, 10,1% (14 students) represented between ages 26-30, and 3,6% (5 students) represented 31+.

Also, there are shown four different grade category demonstrating in the year section. There are shown 23,7% (33 students) at the first grade, 24,5% (34 students) are represented second grade, 17,3% (24 students) represented third grade and 34,5% (48 students) represented fourth grade participants.

Moreover, Table 3.1 shows 139 frequencies and percentage 100% for internet access this means that all of the participants can access the internet for attend the online courses. The ways to access to the online course is defined as computer, cell phone and tablet in the table. While accessing the online course, 56,1% (78 students) are using computer, 37,4% (52 students) using cell phone and 6,5% (9 students) using tablet out of 139.

Finally, according to Table 3.1, there were 58 participants responded "Yes" to having online course experiences before. 81 participants had not experience on the taking online course previously that is why they chose answer "No". The percentages of the online course experience before were 41.7% for "Yes" and 58.3% for "No".

3.3 Data Collection Tool

Questionnaire is the most frequently used method in the survey. Questionnaires are a list of open-ended or closed-ended questions that participant's answer (Kabir, 2016). Furthermore, the questionnaire used in this study is divided into two parts and it was distributed to the students in this format.

The first part was demographics, this part consisted of fundamental information such as age, gender, class level, students' access to internet connection, attending tool to access online lessons, students' class level, and online course experience. See Appendix A for more details on items in demographic section.

The Self-Regulated Online Learning Questionnaire (SOL-Q) was the second part of the questionnaire. The SOL-Q developed by Jansen et al. (2017) and adapted into Turkish by Yavuzalp and Özdemir (2020). The SOL-Q is further divided into five different categories, which are: metacognitive skills, time management, environmental structuring, persistence and help seeking. SOL-Q comprised of 36 items and they were answered on a 7-point Likert scale, ranging from ‘‘not at all true for me’’ (= 1) to ‘‘very true for me’’ (=7).

Subsequently, the questionnaire was created using Google Forms and it was distributed to the undergraduate students as an online document. The questionnaire was sent to the departments and instructors via e-mail, and they delivered it to their students via Microsoft Teams. Instructors requested from students to participate in the survey. The questionnaire was offered to the students both in Turkish and English versions, however, students only filled out the Turkish questionnaire because majority of the EMU Faculty of Education students' native language is Turkish.

3.4 Data Analysis

The analysis in this study were carried out in line with the research questions. Data analysis was performed of descriptive statistics to measuring the means, standard deviations, frequencies and percentages by using SPSS (Statistical Package for the Social Sciences) version 26. Items 19 and 21 in the time management sub dimension of the Self-Regulated Online Learning scale were reverse items and were reverse coded in the statistical analysis.

3.5 Reliability and Validity

Validity indicates how accurately a study answered its questions and the strength of that study result. For surveys, it demonstrates how accurately the measurement was performed (Sullivan, 2011).

The second part of the questionnaire which was applied in this research was The SOL-Q. The reliability analysis of the SOL-Q were performed by Jansen et al. (2017), and they found the total SOL-Q reliability result as 0.90. Also, scale sub dimensions' reliability results were found as follows: metacognitive skills 0.90, time management 0.70, environmental structuring 0.67, persistence 0.78 and help seeking 0.83, and also the reliability result of adapted form of the Turkish (SOL-Q), by Yavuzalp and Özdemir (2020), the reliability result for the whole scale was found to be 0.97.

While achieving the measurement, the correlation between the answers is calculated. Cronbach's alpha coefficient takes a value between 0 and 1, and as it gets closer from 0 to 1, the reliability rate increases so the reliability rate which close to 1 indicates high reliability (Mohd Arof, Ismail & Saleh, 2018). "In observed variable analyses, there is no gold standard as to how high coefficients should be in order to conclude that score reliability is satisfactory, but here are some guidelines: Generally, coefficients around 0.90 are considered "excellent," values around 0.80 as "very good," and values about 0.70 as "adequate"" (Kline, 2005, p. 92). In this study, Cronbach's alpha coefficient for 36 components was found 0.95, it demonstrating that it has a high internal consistency since the coefficient is above the acceptability level of 0.90.

Table 3.2: Reliability Results of This Study

Sub dimension	**Cronbach's alpha**
Total	**.95**
Metacognitive skills	.94
Time management	.51
Environmental structuring	.91
Persistence	.87
Help seeking	.79

When the reliability results in the above Table 3.2 were checked, reliability values of four sub dimensions were determined above 0.70. However, time management sub dimension had a Cronbach alpha of 0.51, which is lower value for the range of coefficient of Cronbach's alpha and its reliability level (Mohd Arof et al., 2018). Total 0.95, metacognitive skills 0.94, time management 0.51, environmental structuring 0.91, persistence 0.87, help seeking 0.79.

A Cronbach alpha coefficient above 0.70 indicates that the level of reliability is sufficient except one (Mohd Arof et al., 2018). However, lower levels of score reliability can be tolerated in latent variable methods compared with observed variable methods, if the sample size is sufficiently large (Little, Lindenberger & Nesselroade, 1999). Accordingly these results indicated all sub dimensions and the whole scale score are at an adequate level in terms of reliability.

Chapter 4

FINDINGS AND DISCUSSIONS

This chapter presents the findings and the discussions of the study in details. Results of the analysis of the data collect within the scope of the research questions are presented in tables. Additionally, the information below shows the students Self-regulated Online Learning (SOL) status in respect to the 5 sub-dimensions, and the difference between the students self-regulated online learning status with their previous online learning experience.

4.1 Students' SOL in Emergency Remote Learning Period

Findings related to the first question are presented in tables, analyzes will be interpreted separately in the tables created for each sub dimension.

4.1.1 Students' SOL in Respect to Metacognitive Skills

Regarding the first research question, Table 4.1 below presented the data obtained regarding the answers given by the students in the self-regulated online learning metacognitive skills, which includes the first 18 items in the scale.

All content of the Items of the Self-Regulated Online Learning Questionnare can be seen in the Appendix A.

Table 4.1: Students' SOL in Respect to Metacognitive Skills

Metacognitive Skills	**Mean ($\bar{x}$)**	**SD**
Item 1	5,10	1,50
Item 2	4,17	1,63
Item 3	4,61	1,73
Item 4	4,96	1,57
Item 5	4,54	1,73
Item 6	**5,29**	**1,49**
Item 7	**5,32**	**1,48**
Item 8	4,64	1,59
Item 9	**5,12**	**1,58**
Item 10	4,78	1,59
Item 11	4,56	1,67
Item 12	4,71	1,72
Item 13	4,95	1,69
Item 14	4,98	1,55
Item 15	4,66	1,70
Item 16	**5,12**	**1,63**
Item 17	4,95	1,62
Item 18	4,82	1,72
Avr.	**4,85**	

As indicated in Table 4.1, the mean values and standard deviations of the items related to the answers of the students are presented and the results obtained from the answers are interpreted and explained in detail below.

The mean and standard deviation of Item 1 was found as ($\overline{x}$=5,10, SD=1,50). This result illustrates that the students thought that they were successful in constructing the necessary information that they would use by thinking about the subject before the online course. The result obtained from the students is that, in general, most of them prepare for the lesson by thinking about the learning outcomes before starting the lesson in order to prepare themselves. In the research conducted Isaacson and Fujita (2006) where students after taking the exam were asked to predict their results before grading commenced, it was determined that the successful students were more efficient in predicting the test results, setting goals and determining the test questions they perceived.

On the other hand, Item 2 had the lowest mean and standard deviation values ($\overline{x}$=4,17), (SD=1,63). The result shows that when it concerns critically thinking on the task at the beginning in order to make preparation for lessons the metacognitive skill level of students is average. The result obtained from the students is that most of them make preparations for the lesson by making inquiries about the study patterns before starting the lesson. Adam et al. (2017) stated that one of the self-regulated learning stages is forethought, this stage is divided into task analysis and self-motivation. It includes task analysis, goal setting and strategic planning.

The mean and standard deviation values of item 3 was found as ($\overline{x}$=4,61, SD=1,73). This result showed that students believe that they are good at setting goals before they begin their online course. The results obtained revealed that, in general, students were able to create a study plan for themselves by arranging their learning on a weekly and monthly basis. Wandler and Imbriale (2017) defined the goal setting as self-regulated students work with shorter-term goals in order to achieve longer-term goals and build

strategies that are beneficial to them. Item 4 ($\overline{x}$=4,96, SD=1,57) and Item 5 ($\overline{x}$=4,54, SD=1,73) demonstrated close mean and standard deviation rates to each other also they are related with the metacognitive activities before learning.

The Items 6 ($\overline{x}$=5,29, SD=1,49), Item 7 ($\overline{x}$=5,32, SD=1,48), Item 8 ($\overline{x}$=4,64, SD=1,59), and Item 9 ($\overline{x}$=5,12, SD=1,58) were found to have high mean values that were closely related to each other. These results showed that most students are able to remember the information and strategies they have learned previously and are able to link them with new information. Self-regulated students use strategies to manipulate cognition, regulate affect, and guided movement (Wandler & Imbriale, 2017). According to the research by Turan and Demirel (2010), their findings suggested that successful self-regulated learners are able to link past and new information, plan their strategies and monitor their learning process themselves to accomplish the online leaning. Item 10 mean and standard deviation found as ($\overline{x}$=4,78, SD=1,59). Through these results, it is concluded that the students are capable of setting up study strategies for the online course and following the course process in this direction.

Also, the mean and standard deviation values of Item 11 was determined as ($\overline{x}$=4,56, SD=1,67). The findings indicate that students are capable of making sense of the learning process by constantly checking the course outputs and associating the information they have learned with each other. Yükseltürk and Bulut (2007) defined successful online students as learners who fulfill their responsibilities, review materials regularly, complete their homework on time, reflect on their own learning processes, and participate in online discussions. Item 12 ($\overline{x}$=4,71, SD=1,72). Astriani, Susilo, Suwono, Lukiati and Purnomo (2020) suggested that the application of metacognitive skills in online learning can be done using learning strategies and these

strategies may aid in the construction of information, and improvement of student attention in independent learning.

Item 13 ($\bar{x}$=4,95, SD=1,69) and Item 14 ($\bar{x}$=4,98, SD=1,55) were discovered to have close rates mean and standard deviation values, where the results showed that students thought they were able to understand the learning outcomes and manage their learning strategies after online learning. The development of self-regulation can be combined with the teaching and learning process. Appropriate classroom activities can contribute to the improvement of students' self-regulated learning skills. In this direction, students can be supported to develop strategies such as planning, action and control to develop students self-regulated learning skills and these strategies can be used for increase abilities like problem solving together with conceptual understanding (Magno, 2009).

Item 15 ($\bar{x}$=4,66, SD=1,70) and Item 16 ($\bar{x}$=5,12, SD=1,63) mean and standard deviation are presented. These results indicated that the students think that they are sufficient in accomplishing their goals and establishing a strategy in the online course. With respect to these items, Winne (1996) stated that as students obtain the feedback themselves, the strategies provide guidance on which plans to choose and how to implement them to achieve the goals. Item 17 ($\bar{x}$=4,95, SD=1,62), Item 18 ($\bar{x}$=4,82, SD=1,72) mean and standard deviation results showed that students thought that they were good at organizing their metacognitive skills after learning. Bannert and Mengelkamp (2008) stated that directing students to think about their own learning strategies would greatly contribute to their online learning by increasing their metacognitive skills. In general, the mean of each item shows that most students have high self-regulated online learning for the metacognitive skills sub dimension.

In general, Item 6 was found ($\overline{x}$=5,29), Item 7 ($\overline{x}$=5,32), Item 9 ($\overline{x}$=5,12) and Item 16 ($\overline{x}$=5,12) were discovered to have the highest mean values among 18 Items. Average of metacognitive skills sub dimension general mean value was found as 4,85. This result indicates average based on the 7-point Likert scale scoring system.

4.1.2 Students' SOL in Respect to Time Management

In regards to the self-regulated online learning of students in the Faculty of Education, self-regulated online learning in respect to time management shows how students effectively manage their time when it concerns online courses based on 3 items in the scale. Table 4.2 below shows the answers of the students' self-regulated online learning on time management of three items in the scale.

Table 4.2: Students' SOL in Respect to Time Management

Time Management	**Mean ($\overline{x}$)**	**SD**
Item 19	3,92	2,03
Item 20	**5,53**	**1,74**
Item 21	4,84	2,11
Avr.	**4,76**	

Table 4.2 shows the responses of students' to time management sub dimension of the scale, which comprised of 3 items. In addition, Item 19 had lowest mean value ($\overline{x}$=3,92), while Item 20 had highest mean value ($\overline{x}$=5,53). This result showed that most of the students think that they are able to organize their study time and create a schedule to complete tasks for effective online course.

According to study conducted by Tabuenca, Kalz, Drachsler and Specht (2015), the findings showed that observing the time allocated to the study can yield positive results

for improving time management skills in online learning. Accordingly, students' learning goals, setting specific goals for themselves and planning the study process in advance also play an important role in time management. Item 21 had a mean value of ($\overline{x}$=4,84). Conclusively, Item 19 and Item 21 were included in the analysis as reverse items and the results were taken into account in this direction.

In summary, Item 20 ($\overline{x}$=5,53) was discovered to have the highest mean value out of the three items. Moreover, in the time management sub dimension general mean value was found as 4,76. This result indicates that students are average when it comes to time management based on a 7-point Likert scale scoring system.

4.1.3 Students' SOL in Respect to Environmental Structuring

In regards to the self-regulated online learning of students in the Faculty of Education, self-regulated online learning in respect to environmental structuring shows how students choose a location to study and knowing when to study when it concerns an online course based on five items in the scale.

Table 4.3: Students' SOL in Respect to Environmental Structuring

Environmental Structuring	**Mean ($\overline{x}$)**	**SD**
Item 22	**5,89**	**1,54**
Item 23	**5,94**	**1,51**
Item 24	5,82	1,65
Item 25	5,71	1,74
Item 26	5,68	1,48
Avr.	**5,81**	

Table 4.3 shows the responses of students' to environmental structuring sub dimension of the scale. In general, the mean of each item shows that most students have high self-regulated online learning for the environmental structuring. All items shows close mean values to each other in this sub dimension and are as follows: Item 22 ($\overline{x}$=5,89, SD=1,54), Item 23 ($\overline{x}$=5,94, SD=1,51), while the mean and standard deviation of Item 24 was found as ($\overline{x}$=5,82, SD=1,65). The result showed that students thought that they were able to comprehend how effective their study would be in an online course. Magno (2009) mentioned that learners who understand the conclusion of their own activities and who arrange their environment for effective learning proved to have more progressive qualification and acquisition of comprehension. Item 25 ($\overline{x}$=5,71, SD=1,74), Item 26 ($\overline{x}$=5,68, SD=1,48). According to these results, most students are aware of the necessity of finding a suitable study place for them and the necessity of study expected from them.

Item 23 had the highest mean value ($\overline{x}$=5,94). This result shows that most students believe that they are able to find suitable place for their online lessons without distractions. According to findings of Ergen and Kanadlı (2017) research, it was determined that the learning environment designed for self-regulated learning has an impact on academic achievement.

Conclusively, Item 22 ($\overline{x}$=5,89) and Item 23 ($\overline{x}$=5,94) had the highest mean values among the five items. In the environmental structuring sub dimension the general mean value was found as 5,81. This result indicates students are good when it concerns structuring their environment for an online course based on the 7-point Likert scale scoring system.

4.1.4 Students' SOL in Respect to Persistence

With respect to the self-regulated online learning of students in the Faculty of Education, self-regulated online learning in respect to persistence shows how students continue to pay attention, persevere, and concentrate in an online course despite opposing factors based on five items in the scale.

Table 4.4: Students' SOL in Respect to Persistence

Persistence	**Mean ($\bar{x}$)**	**SD**
Item 27	5,23	1,66
Item 28	**5,30**	**1,62**
Item 29	5,00	1,65
Item 30	**5,59**	**1,44**
Item 31	5,23	1,67
Avr.	**5,27**	

More so, as seen in Table 4.4 the mean of each Item shows that most students have high self-regulated online learning for persistence. The result of Item 27 ($\bar{x}$=5,23, SD=1,66) shows that when students begin to lose focus or lack concentration, they persist on not giving up the lesson and make an effort to attach themselves to the lesson.

The mean and standard deviation of Item 28 and Item 29 were found as ($\bar{x}$=5,30, SD=1,62), and ($\bar{x}$=5,00, SD=1,65). According to these results, it can be concluded that most students have optimistic about concentrating on their lessons and insist on staying connected to the lessons. According to Croxton (2014), there is a significant relation between online course interaction and persistence based on the students' willingness

to participate in the course, participating in discussions and avoiding boredom in the course.

Also, Item 30 had the highest mean value as ($\bar{x}$=5,59, SD=1,44). This result shows that most students are able to concentrate and pay attention to the online lesson for success even if they don't like the lesson. In regards to this item, the findings of Artino Jr and Jones (2012) research shows that after the descriptive and correlation analysis, “students' course-related enjoyment was positively related to both elaboration and metacognition" (p. 172).

The mean and standard deviation of Item 31 was found as ($\bar{x}$=5,23, SD=1,67), which shows that students benefit from all sources and materials for their individual learning, whether they are interesting or not. Also, this result shows that it is necessary to understand how students access different types of learning materials and how their behavior in accessing these materials affect their learning performance (Li & Tsai, 2017).

Overall, the mean value of Item 28 was found ($\bar{x}$=5,30), while the mean value for Item 30 was found as ($\bar{x}$=5,59), hence was the highest mean value among the five items. In the persistence sub dimension general mean value was found as 5,27. This result indicates that the self-regulated learning status of students in respect to their persistence is good based on the 7-point Likert scale scoring system.

4.1.5 Students' SOL in Respect to Help Seeking

With respect to the self-regulated online learning of students in the Faculty of Education, self-regulated online learning in respect to help seeking shows how

students inquire help from instructors or their peers when faced with problems or question they do not know in an online course based on five items in the scale.

Table 4.5: Students' SOL in Respect to Help Seeking

Help Seeking	**Mean ($\overline{x}$)**	**SD**
Item 32	5,59	1,68
Item 33	**5,63**	**1,69**
Item 34	4,38	1,91
Item 35	**5,63**	**1,67**
Item 36	5,05	1,98
Avr.	**5,26**	

Table 4.5 shows that most students have high self-regulated online learning for the help seeking sub dimension. Items shows close mean values to each other in this sub-dimension and are as follows: Item 32 ($\overline{x}$=5,59, SD=1,68), Item 33 ($\overline{x}$=5,63, SD=1,69), Item 34 ($\overline{x}$=4,38, SD=1,91), Item 35 ($\overline{x}$=5,63, SD=1,67), Item 36 ($\overline{x}$=5,05, SD=1,98). Also, Items 33 and 35 had the highest mean value of ($\overline{x}$=5,63). This result shows that most of the students believe that they are good at self-regulated online learning while dealing with online learning challenges, and they are able to seek help from instructors and their classmates when they get stuck in an online learning course. Researcher ChanLin (2012) stated that the interaction and collaborative work between students helps in the self-regulation learning progress and is effective for success in their academic goals. In addition, Mayda et al. (2020) emphasized the necessity for students to demonstrate the self-regulated learning skills in online learning environments.

Overall, Item 33 ($\bar{x}$=5,63) and Item 35 ($\bar{x}$=5,63) were determined to have the highest mean values among the five items. In the help seeking sub-dimension general mean value was found as 5,26. This result indicates that the self-regulated learning status of students in respect to seeking for help is good based on the 7-point Likert scale scoring system.

Table 4.6: Students' SOL Status in Emergency Remote Learning Period

SOLQ	Mean ($\bar{x}$)
All Items (Item1-36)	5,09

According to Table 4.6, total mean value of Self-Regulated Learning Questionnaire for the students is calculated 5,09. This result indicates that mean value for all items is good based on the 7-point Likert scale scoring system. In summary, the mean value of the metacognitive skills sub-dimension was found as 4,85, the mean value of the time management sub-dimension was found as 4,76, the mean value of the environmental structuring sub dimension was found as 5,81, the mean value of the persistence sub-dimension was found as 5,27, and the mean value of the help seeking sub dimension was as found 5,26. Based on these results, students' self-regulated learning status was found good in general, average in metacognitive skills and time management sub dimensions, and good in the environmental structuring, persistence and help seeking sub dimensions.

4.2 SOL Status of Students' with and without Online Learning in Experience in Emergency Remote Learning Period

The second research question investigated the self-regulated online learning status of students with and without previous online learning experiences. Results related to this

question will be presented in a table format and interpreted respectively below. In regards to the second research question, Table 4.7 below shows the self-regulated online learning status of students with and without previous online learning experiences.

Table 4.7: Students' SOL Status Differences Between Their Previous Online Learning (O.L) Experience

	With Previous (O.L) Experience		**Without Previous (O.L) Experience**	
Metacognitive Skills	**Mean ($\bar{x}$)**	**SD**	**Mean ($\bar{x}$)**	**SD**
Item 1	**5,31**	**1,34**	**4,96**	**1,60**
Item 2	4,34	1,48	4,04	1,73
Item 3	4,87	1,62	4,41	1,80
Item 4	**5,15**	**1,33**	**4,82**	**1,72**
Item 5	4,72	1,61	4,41	1,81
Item 6	5,29	1,47	5,29	1,52
Item 7	5,46	1,48	5,22	1,48
Item 8	4,56	1,59	4,70	1,60
Item 9	5,18	1,48	5,07	1,66
Item 10	4,81	1,46	4,76	1,68
Item 11	4,62	1,49	4,53	1,80
Item 12	4,62	1,64	4,79	1,78
Item 13	4,87	1,72	5,01	1,67
Item 14	4,93	1,47	5,02	1,61
Item 15	4,50	1,67	4,79	1,72
Item 16	5,18	1,68	5,08	1,61
Item 17	**5,06**	**1,68**	**4,87**	**1,59**
Item 18	4,86	1,80	4,79	1,67
Sub-Dimension Avr.	**4,91**		**4,81**	
Time management	**Mean ($\bar{x}$)**	**SD**	**Mean ($\bar{x}$)**	**SD**
Item 19	4,06	2,03	3,81	2,04
Item 20	**5,62**	**1,73**	**5,46**	**1,75**
Item 21	5,53	1,71	4,34	2,23

"Table 4.7 (continued)"

Sub-Dimension Avr.	**5,07**		**4,54**	
Environmental structuring	**Mean ($\bar{x}$)**	**SD**	**Mean ($\bar{x}$)**	**SD**
Item 22	**6,17**	**1,28**	**5,69**	**1,67**
Item 23	6,00	1,47	5,90	1,55
Item 24	**6,06**	**1,46**	**5,64**	**1,76**
Item 25	5,93	1,60	5,55	1,83
Item 26	5,81	1,54	5,99	1,44
Sub-Dimension Avr.	**5,99**		**5,75**	
Persistence	**Mean ($\bar{x}$)**	**SD**	**Mean ($\bar{x}$)**	**SD**
Item 27	5,24	1,61	5,22	1,70
Item 28	5,36	1,49	5,27	1,71
Item 29	**5,10**	**1,59**	**4,92**	**1,70**
Item 30	5,67	1,51	5,54	1,40
Item 31	**5,62**	**1,50**	**4,95**	**1,74**
Sub-Dimension Avr.	**5,4**		**5,2**	
Help seeking	**Mean ($\bar{x}$)**	**SD**	**Mean ($\bar{x}$)**	**SD**
Item 32	5,53	1,80	5,64	1,59
Item 33	5,51	1,88	5,71	1,54
Item 34	4,50	1,84	4,30	1,97
Item 35	5,67	1,67	5,60	1,68
Item 36	**4,60**	**1,99**	**5,37**	**1,93**
Sub-Dimension Avr.	**5,2**		**5,3**	
Total Avr. (All Items)	**5,18**		**5,04**	

In Table 4.7 shows the students' responses for "Do you have online learning experience before?". 58 students chose "Yes" option to define that they had previous experience, while 81 students chose "No" option to define they had not online course experience before.

Item 1 belongs to the metacognitive skills sub-dimension where the mean value was found as ($\overline{x}$=5,31) for previous online learning experience and ($\overline{x}$=4,96) for without previous online learning experience, according to the answers provided by the students. This result showed that students with previous online learning experience were more self-regulated while preparing for the online course than those students without previous experience, hence they were confident in using the strategies they learned in previous lessons, and they were confident in planning, monitoring and evaluating in an online learning course. According to results from the research conducted by Shen and Liu (2011), students in the experimental group achieved significantly more gains in self-planning, self-monitoring and total score compared to the control group.

The mean value of Item 4 for students with previous experience was found as ($\overline{x}$=5,15) while the mean value of students without previous experience was found as ($\overline{x}$=4,82). Based on the answers of students with two different learning experiences, it can be said that students have different approaches when determining learning goals. In addition, this result highlights that students who had previous online learning experience are more skilled in arranging study time according to their learning goals in the online course than students without previous experience. Close to the results of this study is that of Kizilcec et al., (2017), which it was determined that students goal setting and strategic planning are related to achieving course goals.

Item 17 is placed in the metacognitive skills. When the mean values of both groups are examined, it is discovered that the students with previous experience with a mean value of ($\overline{x}$=5,06) consider various factors when it concerns determining if results will be useful when setting up a strategy for the online course, than the students without

previous online learning experience with a mean value of ($\overline{x}$=4,87). Similarly, Garrett, Alman, Gardner, and Born (2007) declared that evaluating learners' metacognitive abilities in online learning might have more effect on retention than on primary learning.

Item 20 belongs to time management sub-dimension, where students with previous online learning experience have a mean value of ($\overline{x}$=5,62) and students without previous online learning experience have a mean value of ($\overline{x}$=5,46). The findings in this section showed that students with previous experience in online learning are good at time management. Also, the findings showed, students without previous experience in online learning believe they are as good at online learning as students with previous experience. According to the findings of Kim et al. (2019) study, it was discovered that improvement in students' time management awareness generally leads to positive time management outcomes in self-regulated learning.

Item 22 ($\overline{x}$=6,17) and Item 24 ($\overline{x}$=5,69) have the highest mean values in environmental structuring sub dimension. The results demonstrated that students with previous experience are more qualified than students without previous experience when it concerns dealing with distractions, finding a place to study, and following the requirements of online course. When the mean values are considered in general, most of the students with previous experience and students without previous experience in online learning think that they are sufficient in environmental structuring.

In the persistence sub dimension, Item 31 has the higher mean according to the students answers with previous experience ($\overline{x}$=5,62) than students without previous experience answers ($\overline{x}$=4,95). Accordingly, the result indicates that students with

previous experience in online learning believe that to an extent they are aware that even if a course is considered as boring, they should persist on studying, giving importance to the course, and searching for resources related to the subject. The result indicates that students without previous experience in online learning believe that their level of awareness and persistence is similar to that of students with previous online learning experience.

Item 36 belongs to help seeking sub dimension. Results show that the response from students without previous online learning experience has higher mean values ($\overline{x}$=5,37) than that of students with previous online learning experience ($\overline{x}$=4,60). Related with this result, students without online learning experience are able to communicate with peers effectively, hence they can ask help from others on any circumstances to solve problems in online course than those students with previous online learning experience. Kizilcec and Halawa (2015) according to the results of their study determined that the persistence skills of learners' as higher levels of goal striving, time commitment to the course and an intent to complete the course.

When assigning students' performance in the online learning environment, self-regulated learning is a significant component. According to Samruayruen, Enriquez, Natakuatoong, and Samruayruen (2013) students with previous internet and online learning experience have advanced competence for implement self-regulated learning strategies in online education. In a nutshell, according to the findings of this study, students with previous experience in online learning are more inclined to possess powerful learning strategies through taking online courses, which increases their motivation in other online courses. In general, the means values of the items showed that students with previous online learning experience and students without previous

online learning experience believe that they are sufficient in setting goals, using learning strategies, following the course process and looking for alternative ways in regards to self-regulated online learning.

In sum, the mean value of the metacognitive skills sub-dimension for students with previous online learning experience was 4.91 while the mean value for students without previous online learning experience was 4,81. This result indicates average based on the 7-point Likert scale scoring system for both variables. In the time management sub-dimension, the mean value for students with previous online learning experience was 5,07, which indicates good, while the mean value for students without previous online learning experience was 4,54, which indicates average.

In the environmental structuring sub-dimension, the mean value for students with previous online learning experience was 5,99, while the mean value for students without previous online learning experience was 5,75. This result indicates good based on the 7-point Likert scale scoring system for both variables. In the persistence sub-dimension the mean value for students with previous online learning experience was 5,4, while the mean value for students without previous online learning experience was 5,2. This result indicates good based on the 7-point Likert scale scoring system for both variable. In the help seeking sub-dimension the mean value for students with previous online learning experience was 5,2, while the mean value for students without previous online learning experience was 5,3. This result indicates good based on the 7-point Likert scale scoring system for both variables. The total mean value of all items was found as 5,18 for students with previous online learning experience, which indicates good, on the other hand, the mean value of students without previous online

learning experience was 5,04, which indicates good based on the 7-point Likert scale scoring system.

According to these results, the self-regulated online learning status of students with and without previous online learning experience was good in general. When the average of students with previous online learning experience was compared in the metacognitive skills sub-dimension, the result was found to be average for both groups. In the time management sub dimension, a noticeable difference can be seen between the two groups, the average of students who had previous online learning experience was found to be good, while the average of students who were inexperienced in online learning was found to be average. Moreover, in the environmental structuring, persistence and help seeking sub-dimesions the mean values were found as good for both groups; students with previous online learning experience and students without previous online learning experience.

Chapter 5

CONCLUSION

Following the Coronavirus (Covid-19) emerged, an emergency remote learning transition was implemented at many educational institutions. Therefore, online education gained more importance as there was no opportunity to conduct traditional education (Aldhahi et al., 2021). Online education provides the transmission of education to many people at the same moment. Since online education supports student-centered learning, the student is more active in online education and takes more roles in the learning process (Mukhtar et al., 2020). Some of these roles include doing correct research and finding online materials on the internet, submitting and sharing assignments or tests, interacting with instructors and classmates via internet, manage time well, using Learning Management Systems tools effectively and developing individual working abilities (Zabolotniaia, Cheng, Dorozhkin & Lyzhin, 2020). Individual learning abilities and SRL skills are an essential part influencing the academic success in an online learning environment (Artino Jr & Stephens, 2009).

This research was carried out to determine the Faculty of Education Undergraduate students self-regulated online learning status based on five sub-dimensions (metacognitive skills; time management; environmental structuring; persistence; and help seeking) and to determine the self-regulated online learning status of students with and without online learning experience. The participants of this research were 139 Undergraduate students enrolled in the Faculty of Education during the 2020-2021

Fall semester from eight different departments. The quantitative data was analyzed using descriptive techniques to show the results gotten from the study.

Subsequently, the findings of this research indicates that Faculty of Education students' self-regulated online learning status was found to be good in general. Moreover, the findings showed that students' self-regulated online learning status in respect to the five sub dimensions were found as average in metacognitive skills and time management; while it was found as good in environmental structuring, persistence and help seeking.

Furthermore, the findings of this research also shows that the self-regulated online learning status for students with and without online learning experience good in general. In addition, the findings revealed that the self-regulated online learning status for students with and without online learning experience in respect to sub dimensions were found as average in the metacognitive skills for both groups; in the time management the average of students who had previous online learning experience was found to be good, while the average of students who were inexperienced in online learning was found to be average; and environmental structuring, persistence and help seeking average were found good for both groups.

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APPENDICES

Appendix A: English Questionnaire

PART 1: Demographics

1.Gender:

□ Female □ Male

2. Age range:

□ 18-20 □ 21-25 □ 26-30 □31+

3. What is your class level?

□ 1st □ 2nd □ 3rd □ 4th

4. Do you have access to internet connection?

□ Yes □ No

5. How do you attend the online lessons?

□ Computer □ Mobile Phone □Tablet

6. Do you have online learning experience before?

□ Yes □ No

PART 2: Self-Regulated Online Learning Questionnaire (SOL-Q)

Items are answered on a 7-point Likert scale, ranging from ‘‘not at all true for me’’ (= 1) to ‘‘very true for me’’ (= 7). Please put a tick “√” in the appropriate box that best suits the answer you have selected.

Item	Metacognitive skills	Not at all true for me (1)	2	3	4	5	6	Very true for me (7)
1	I think about what I really need to learn before I begin a task in this online course.							
2	I ask myself questions about what I am to study before I begin to learn for this online course.							
3	I set short-term (daily or weekly) goals as well as long-term goals (monthly or for the whole online course).							
4	I set goals to help me manage my studying time for this online course.							
5	I set specific goals before I begin a task in this online course.							
6	I think of alternative ways to solve a problem and choose the best one for this online course.							
7	I try to use strategies in this online course that have worked in the past.							
8	I have a specific purpose for each strategy I use in this online course.							
9	I am aware of what strategies I use when I study for this online course.							
10	Although we don’t have to attend daily classes, I still try to distribute my studying time for this online course evenly across days.							
11	I periodically review to help me understand important relationships in this online course.							
12	I find myself pausing regularly to check my comprehension of this online course.							

13	I ask myself questions about how well I am doing while learning something in this online course.							
14	I think about what I have learned after I finish working on this online course.							
15	I ask myself how well I accomplished my goals once I'm finished working on this online course.							
16	I change strategies when I do not make progress while learning for this online course.							
16	I change strategies when I do not make progress while learning for this online course.							
17	I find myself analyzing the usefulness of strategies while I study for this online course.							
18	I ask myself if there were other ways to do things after I finish learning for this online.							
Time management								
19	I find it hard to stick to a study schedule for this online course.							
20	I make sure I keep up with the weekly readings and assignments for this online course.							
21	I often find that I don't spend very much time on this online course because of other activities.							
Environmental structuring								
22	I choose the location where I study for this online course to avoid too much distraction.							
23	I find a comfortable place to study for this online course.							
24	I know where I can study most efficiently for this online course.							
25	I have a regular place set aside for studying for this online course.							
26	I know what the instructor expects me to learn in this online course.							
Persistence								
27	When I am feeling bored studying for this online course, I force myself to pay attention.							
28	When my mind begins to wander during a learning session for this							

	online course, I make a special effort to keep concentrating.							
29	When I begin to lose interest for this online course, I push myself even further.							
30	I work hard to do well in this online course even if I don't like what I have to do.							
31	Even when materials in this online course are dull and uninteresting, I manage to keep working until I finish.							
Help seeking								
32	When I do not fully understand something, I ask other course members in this online course for ideas.							
33	I share my problems with my classmates in this course online so we know what we are struggling with and how to solve our problems.							
34	I am persistent in getting help from the instructor of this online course.							
35	When I am not sure about some material in this online course, I check with other people.							
36	I communicate with my classmates to find out how I am doing in this online course.							

Appendix B: Turkish Questionnaire

PART 1: Demografik Bilgiler

1.Cinsiyetiniz:

□ Kadın □ Erkek

2. Yaşınız:

□ 18-20 □ 21-25 □ 26-30 □ 31+

3. Kaçıncı sınıfta okuyorsunuz?

□ 1 □ 2 □ 3 □ 4

4. İnternete erişiminiz var mı?

□ Evet □ Hayır

5. Online derslere nasıl katılıyorsunuz?

□ Bilgisayar □ Cep Telefonu □Tablet

6. Daha önce çevrimiçi öğrenme deneyiminiz var mı?

□ Evet □ Hayır

PART 2: Öz-Düzenlemeli Çevrimiçi Öğrenme Ölçeği (SOL-Q)

Maddeler, "benim için hiç doğru değil" (= 1) ile "benim için çok doğru" (= 7) arasında değişen 7 puanlı Likert ölçeğinde yanıtlanır. Lütfen seçtiğiniz cevaba en uygun kutucuğa "√" işaretini koyunuz.

Madde	Üst Bilişsel Beceriler	Benim İçin hiç doğru değil (1)	2	3	4	5	6	Benim için çok doğru (7)
1	Çevrimiçi derslerde herhangi bir konuya başlamadan önce neyi öğrenmem gerektiğini düşünürüm.							
2	Çevrimiçi derslere başlamadan önce kendime konuyla ilgili sorular sorarım.							
3	Kendime çevrimiçi ders ile ilgili kısa vadeli (günlük veya haftalık) ve uzun vadeli (aylık veya ders süresince) hedefler koyarım.							
4	Çevrimiçi ders için çalışma zamanımı düzenleyecek/yönetecek hedefler koyarım.							
5	Çevrimiçi derse başlamadan önce kendime ders ile ilgili belirli hedefler koyarım.							
6	Bir sorunu çözmek için alternatif yollar düşünürüm ve bu yollardan çevrimiçi derse yönelik en iyi yolu seçerim.							
7	Çevrimiçi derste önceki derslerde işe yarayan stratejileri kullanmaya çalışırım.							
8	Çevrimiçi derste kullandığım her strateji için özel bir amaca sahibim.							
9	Çevrimiçi ders için çalışırken kullandığım stratejilerin farkındayım.							
10	Sanal ders arşivlerini izleme zorunluluğu olmamasına rağmen çevrimiçi ders çalışma saatlerimi günler arasında eşit dağıtmaya çalışırım.							
11	Çevrimiçi derste kavramlar arasındaki önemli ilişkileri anlamak için konuları düzenli olarak tekrar ederim.							
12	Çevrimiçi dersi anlayıp anladığımı kontrol etmek için kendimi düzenli olarak ara verip düşünürken bulurum.							

13	Çevrimiçi derste bir şeyler öğrenirken ne kadar iyi yaptığım hakkında kendime sorular sorarım.							
14	Çevrimiçi ders üzerinde çalışmayı bitirdikten sonra öğrendiklerim hakkında düşünürüm.							
15	Çevrimiçi ders bittikten sonra hedeflerime ne kadar ulaştığıma dair kendime sorular sorarım.							
16	Çevrimiçi derslerde öğrenirken ilerleme kaydedemediğimde stratejilerimi değiştiririm.							
17	Çevrimiçi derslerde kendimi kullandığım stratejilerin işe yarar olup olmadığını analiz ederken bulurum.							
18	Çevrimiçi derslerde öğrenmeyi tamamladıktan sonra o konuyu öğrenmenin başka yolları olup olmadığını kendime sorarım.							
Zaman Yönetimi								
19	Çevrimiçi ders için bir çalışma programına uymayı zor bulurum.							
20	Çevrimiçi dersin haftalık okumalarını ve ödevlerini takip ettiğimden emin olurum.							
21	Genellikle diğer etkinlikler nedeniyle çevrimiçi derse fazla zaman ayıramıyorum.							
Çevresel Yapılanma								
22	Çevrimiçi derste dikkat dağıtıcı unsurların önüne geçmek için çalışabileceğim uygun bir yer seçerim.							
23	Çevrimiçi derse çalışmak için rahat bir yer bulurum.							
24	Çevrimiçi derse en verimli şekilde nerede çalışacağımı bilirim.							
25	Çevrimiçi ders için ayarladığım belirli bir yerim var.							
26	Eğiticinin çevrimiçi ders sırasında ne öğrenmemi beklediğinin farkındayım.							
Sebat								
27	Çevrimiçi derste sıkıldığımı hissettiğimde, kendimi dikkatimi toplamak için zorlarım.							
28	Çevrimiçi ders için bir öğrenme oturumu boyunca dikkatim dağılmaya başlayınca, derse yönelik olan ilgimi toplamak için özel bir çaba gösteririm.							
29	Çevrimiçi derste ilgimi kaybetmeye başladığımda, kendimi ilgimi toplamak için daha fazla zorlarım.							

30	Yapmam gereken şeylerden hoşlanmasam da bu çevrimiçi derste başarılı olmak için çok çalışırım.							
31	Çevrimiçi ders materyalleri donuk ve ilgi çekmeyen tarzda olsa bile bitirene kadar çalışmaya devam ederim.							
Yardım Arama								
32	Çevrimiçi derste bir şeyi tam olarak anlamadığımda, derse katılan arkadaşlarıma onların konuyla ilgili düşüncelerini sorarım.							
33	Çevrimiçi derste yaşadığım sorunları arkadaşlarımla paylaşarak problemi nasıl çözeceğimize dair bir yol buluruz.							
34	Çevrimiçi dersin öğretmeninden yardım almakta ısrar ederim.							
35	Çevrimiçi dersteki materyallerden emin olmadığımda, başka kişilerle control ederim.							
36	Çevrimiçi derste başarımın nasıl olduğumu öğrenmek için sınıf arkadaşlarımla iletişim kurarım.							

Appendix C: Ethics Committee Approval Letter

Doğu Akdeniz Üniversitesi
"Erdem, Bilgi, Gelişim"

Eastern Mediterranean University
"Virtue, Knowledge, Advancement"

99628, Gazimağusa, KUZEY KIBRIS / Famagusta, North Cyprus, via Mersin 10 TURKEY
Tel: (+90) 392 630 1995
Faks/Fax: (+90) 392 630 2919
E-mail: bayek@emu.edu.tr

Etik Kurulu / *Ethics Committee*

Reference No: ETK00-2020-0258 04.12.2020

Subject: Your application for ethical approval.

Re: Melek Karabaş
Faculty of Education.

EMU's Scientific Research and Publication Ethics Board (BAYEK) has approved the decision of the Ethics Board of Education (date: 26.11.2020, issue: 2020/80) granting Melek Karabaş from the Faculty of Education to pursue with her MA thesis work titled **"The Self-Efficacy of the Faculty of Education Students' on Online Assessments and Online Educational Materials in EMU"** supervised by Prof. Dr. Ersun İşçioğlu.

Prof. Dr. Yücel Vural

Chair, Board of Scientific Research and Publication Ethics - EMU

YV/ns.

www.emu.edu.tr

Appendix D: Turnitin Originality Report

Turnitin Originality Report

Thesis_sub_V10 by Melek Karabas

From Melek_Karabas (SCHOOL OF COMPUTING AND TECHNOLOGY)

- Processed on 08-Oct-2021 09:45 +03
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2	1% match (student papers from 08-Feb-2021) Submitted to Oxford Brookes University on 2021-02-08
3	< 1% match (Internet from 21-Jul-2020) http://i-rep.emu.edu.tr:8080/jspui/bitstream/11129/3193/1/matanaylar.pdf
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