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KOVİD-19 SALGINI SIRASINDA K12 OKULLARINDA UZAKTAN ÇALIŞMA: ÖĞRETMENLER İÇİN RİSKLER VE FIRSATLAR

TELEWORK IN K12 SCHOOLS DURING THE COVID-19 PANDEMIC: RISKS AND OPPORTUNITIES FOR TEACHERS

Yasemin KARAL¹, Ercan DOĞAN²

ÖZ: Uzaktan çalışmanın kaçınılmaz patlaması, öğretmenlerin farklı kültürel, kurumsal ve sosyal bağlamlardaki deneyimleri üzerinde farklı derecelerde etkiye sahip olabilir. Türkiye'de Kovid-19 salgını nedeniyle zorunlu eğitimin her kademesindeki okullar kapatılırken, Milli Eğitim Bakanlığı da tüm illerde eğitimin devamını sağlamak amacıyla eğitim politikası olarak öğretmenlere yönelik uzaktan eğitim veya uzaktan çalışma uygulamasına geçti. Bu çalışma öğretmenlerin uzaktan çalışan rollerinden kaynaklanan algılanan riskleri ve firsatları incelemektedir. Veriler K12 düzeyinde görev yapan 225 öğretmenden çevrimiçi anket kullanılarak toplanmıştır. Veriler analiz edilerek kategori, tema, kod ve frekanslar çıkarılmış ve sonuçlar tablolar halinde sunulmuştur. Öğretmenlere göre pek çok risk ve fırsat var. Ancak öğretmenler dezavantajların fırsatlardan daha ağır bastığını ifade etti. Uzaktan çalışmanın işyaşam dengesi, sağlık ve refah, performans ve iş tatmini üzerindeki etkilerine ilişkin sorulara yanıt verenlerin yarısı çoğunlukla olumsuz yanıtlar verdi. Bazı durumlarda katılımcıların yarısından biraz fazlası bu şekilde yanıt verdi. Öğretmenlerin uzaktan çalışma konusundaki isteklilikleri incelendiğinde, öğretmenlerin küçük bir kısmının uzaktan çalışmayı hiç tercih etmediği görüldü. Öte yandan çoğunluğun bir çalışma biçimi olarak uzaktan çalışmaya istekli olduğu görüldü. Bu durum pandemi süreci sonrasında K12 okullarında uzaktan çalışmanın esnek çalışma düzenlemesi kapsamında bir seçenek olarak değerlendirilebileceğinin bir göstergesi olabilir.

Anahtar sözcükler: Uzaktan çalışma, K12 okulları, Öğretmen, Pandemi

ABSTRACT: The inevitable boom of telework can have varying degrees of impact on teachers' experiences in different cultural, institutional and social contexts. In Turkey, schools at every compulsory education level were closed due to Covid-19 outbreak, and the Ministry of National Education started tele-education or telework for teachers as an education policy in order to ensure the continuation of education in all provinces. This study looks at teachers' perceived risks and opportunities arising from their role as teleworker. Data were collected from 225 teachers working at K12 level by using an online survey. The data were analyzed to extract categories, themes, codes and frequencies, and the results were presented in tables. According to the teachers, there are a lot of risks and opportunities. However, the teachers stated that drawbacks outweigh the opportunities. In response to the questions on the effects of teleworking on work-life balance, health and wellbeing, performance, and job satisfaction; half of the respondents gave negative answers more often than not. In some cases, slightly more than half of the respondents answered in this way. When teachers' eagerness to telework was examined, it was seen that a small portion of the teachers did not opt for it at all. On the other hand, the majority was found to be fairly eager or highly eager for telework as a way of working. This may be an indication that teleworking in K12 schools can be considered as an option within the scope of flexible working arrangement after the pandemic process.

Keywords: Telework, K12 schools, Teacher, Pandemic

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¹ Doç.Dr., Trabzon Üniversitesi, Trabzon/Türkiye, yaseminkaral@trabzon.edu.tr, ORCID: 0000-0003-4744-4541

² Yüksek Lisans Öğrencisi, Trabzon Üniversitesi, Trabzon/Türkiye, ercan_dogan19@trabzon.edu.tr , ORCID: 0000-0002-5149-0535

GENİSLETİLMİS ÖZET

Giriş

Uzaktan çalışma, Bilgi ve İletişim Teknolojileri (BİT)'in kullanımı yoluyla iş faaliyetlerinin gerçekleştirildiği bir çalışma biçimidir. Uzaktan çalışma giderek daha fazla çalışan ve işveren tarafından benimsenmektedir. Birçok ülkede uzaktan çalışmaya yönelik yasal düzenlemeler gerçekleştirilmiştir. Yasalar, genel olarak tele çalışanların diğer çalışanlarla aynı haklara sahip olduklarını vurgulamaktadır. Uzaktan çalışmanın etkileri çalışan ve örgüt ya da kurum perspektifinden farklı şekillerde değerlendirilebilir. Alan yazın araştırmacıları, uzaktan çalışmanın çalışmalara sağladığı fırsatlar ve çalışanlar için olası riskler üzerinde durmaktadır. Uzaktan çalışmanın çalışma süresi ve iş yaşam dengesi, sağlık ya da refah, çalışan performansı ve memnuniyeti üzerine olumlu ve olumsuz etkileri vardır. COVID-19 salgını nedeniyle, uzaktan çalışmanın zorunlu patlamasının, farklı kültürel, kurumsal ve sosyal bağlamlarda öğretmenlerin deneyimleri üzerine farklı ölçüde ve boyutta etkileri olabilmektedir. Türkiye'de, COVID-19'un etkileriyle her zorunlu eğitim düzeyinde okullar kapatılmış ve Milli Eğitim Bakanlı'ğı tüm illerde eğitimin devamını sağlamak için tele eğitim ya da öğretmenler için uzaktan çalışmayı eğitim politikası olarak uygulamıştır. Bu çalışma bu kapsamda tasarlanmıştır. Zaruri olarak tele çalışan rolünü üstlenen öğretmenlerin bu koşullar altında hangi riskler ve fırsatlarla karşı karşıya kaldıklarını kendi algılarına bağlı olarak incelemek amaçlanmaktadır.

Yöntem

Çalışma, tarama yönetimine göre tasarlanmıştır. Çok sayıda katılımcının araştırma konusu ile ilgili görüşlerini betimlemek ve var olan durumun fotoğrafını çekmek amaçlandığından surveyin uygun olduğu düşünülmüştür. Çalışmanın etik kurul izni, Sosyal ve Beşeri Bilimler Araştırma ve Etik Kurulu'ndan alınmıştır. Sayısı 81614018-000-E.380'dır. Araştırma izni, Gümüşhane İl Milli Eğitim Müdürlüğü'nden alınmıs ve resmi bir yazı ile tüm okullara gönderilmistir. Anket cevrimici sunulmustur ve katılım, öğretmenlerin gönüllüğüne bağlıdır. Kolay örnekleme yöntemi esas alınmıştır. Gümüşhane merkez ve ilçelerdeki devlet okullarında çalışan 225 öğretmen ankete katılmıştır. Öğretmenler, pandemi sırasında haftada en az 2 saat, en fazla 43 saat çevrimiçi ders vermektedir. Veri toplama aracı olarak açık uçlu sorulardan oluşan bir anket formu kullanılmıştır. Anket formunun hazırlanması literatür incelemeleri ile başlamıştır. Uzaktan çalışmanın organizasyonu, sağladığı fırsatlar ve riskler üzerine incelemeler yapılmıştır. Eğitimciler ve uzaktan çalışma üzerine yapılan çalışmaların incelenmesi ile kapsam belirlenmiş ve anket soruları hazırlanmıştır. Hazırlanan sorular ile 3 farklı branştan öğretmen ile mülakatlar gerçekleştirilmiş, elde edilen veriler incelenmiş ve sorular üzerinde bazı düzenlemeler yapılmıştır. Düzenlenen sorular, online anket olarak hazırlanmış ve 7 farklı branştan 20 öğretmene online olarak uygulanmıştır. Elde edilen veriler incelenmiş ve bazı düzenlemeler yapılmıştır. Nihai hale getirilen anket formu, uzman görüşüne sunulmuş, öneriler alınmış ve son düzenleme gerçekleştirilmiştir. Anket formu, uzaktan çalışmanın tanımı, çevrim içi eğitim deneyiminin sorgulanması ve demografik bilgilere yönelik sorularla başlamaktadır. Devamında, öğretmenlerin pandemi sürecinde tele çalışan rollerinin iş yaşam dengesi, sağlık, refah ve performans ve is memnuniyeti üzerindeki etkileri üzerine açık uçlu sorular içermektedir. Örnek 2 soru şöyledir: "Uzaktan çalışmanın iş stresiniz üzerinde nasıl bir etkisi olduğunu düşünüyorsunuz?", "Uzaktan çalışmanın ailenizle ilişkiniz üzerinde nasıl bir etkisi olduğunu düşünüyorsunuz?", Anket, "Tele-çalışan bir öğretmen olarak çalışma isteğinizi 0 ile 3 arasında bir değerde puanlayabilir misiniz?" sorusu ile son bulmaktadır. Bu soruda katılımcı öğretmenlerin seçenekler arasından seçim yapmaları beklenmektedir.

Bulgular

Bu çalışma, COVID-19 pandemi döneminde zaruri olarak uzaktan çalışmanın K12 düzeyinde çalışan öğretmenler üzerinde oluşturduğu etkiyi incelenmiştir. Uzaktan çalışmanın öğretmenlere sağladığı fırsatlar ve olası risklerin neler olduğunu anlamak hedeflenmiştir. Bu kapsamda, değişen kişisel, kurumsal ve iş ile ilgili koşullara bağlı olarak tele çalışan öğretmenlerin çalışma süresi ve planlama, aile ile ilişki, iş yaşam dengesi, motivasyon, iş stresi, verimlilik, öğrenciler ile ilişki, mesleki gelişim ve iş memnuniyetini nasıl etkilendiği incelenmiştir. Bu eğitimsel acil durum sürecinde uzaktan çalışmaya maruz kalan öğretmenler, riskler üzerinde biraz daha fazla durmuştur. Pandemi sürecinde tele çalışırken iş yaşam dengesinin, sağlık ya da refahın, performansın ve iş memnuniyetinin nasıl etkilendiği sorusuna çoğu zaman öğretmenlerin yarısı ve bazen biraz daha fazlası olumsuz yanıt vermiştir. Sürecin acil olarak planlanması ve mecbur kalınan bir durum olması göz önüne alındığında olumlu etkilerden bahseden öğretmenlerin oranının da azımsanmayacak düzeyde olduğu söylenebilir. Bununla birlikte, öğretmenlerin mesleki

gelişimleri için uzaktan çalışmanın fırsatlar sağladığı, öğretmenlerin mesleki gelişimlerinin olumlu etkilendiği daha sık tekrarlanmıstır.

Tartışma ve Sonuç

Öğretmenler, uzaktan çalışmanın acil olarak işe koşulduğu ve tüm dünyanın salgın endişesi ve başa çıkma yollarını araştırdığı bir dönemde eğitim öğretim faaliyetlerini gerçekleştirmiş ve sürece dair karşılaştıkları birçok risk ve firsattan bahsetmiştir. Özellikle uzaktan çalışmanın olumsuz etkileri, öğretmenler tarafından daha fazla ön plana çıkarılmıştır. Ancak öğretmenlerin uzaktan çalışma isteklerine bakıldığında, uzaktan çalışmayı hiç tercih etmek istemeyen öğretmenlerin oranının az olduğu görülmektedir. Katılımcı öğretmenlerin ağırlıklı bir oranının uzaktan çalışmayı bir çalışma modu olarak tercih etmeye istekli ya da çok istekli oldukları belirlenmiştir. Bu, pandemi süreci sonrasında da K12 okullarında uzaktan çalışmanın esnek çalışma düzenlemesi kapsamında, bir seçenek olarak değerlendirilebileceğinin bir göstergesi olabilir. K12 okullarında uzaktan çalışma ya da uzaktan eğitim modellerinin nasıl olabileceği irdelenebilir. Bu çalısma, COVID-19 pandemi sürecinde uzaktan çalısmanın öğretmenler üzerindeki etkisini anlamaya yöneliktir ve pandemi sürecinin dışında uzaktan çalışmanın öğretmenler üzerindeki etkilerinin yanıtını içermemektedir. Ayrıca, sunulan bulgular, öğretmenlerin düşünceleri ya da algılarını yansıtır, nesnel değildir. Veriler, literatür araştırmaları ve uzman görüşleriyle geliştirilen açık uçlu sorulardan oluşan online bir anket ile yaklaşık 3 aylık bir süreçte toplanmıştır. 2020-2021 eğitim öğretim yılının güz döneminde uzaktan çalışan, Türkiye'nin doğusunda bir il çapında çevrimiçi dağıtılan ankete gönüllü katılan öğretmenler örneklemi olusturmustur. Okullar ve öğretmenlerin branslara ve okul düzeyine göre dağılımları örneklemde eşit değildir. Uzaktan çalışmanın öğretmenler üzerindeki etkisini inceleyen az sayıda çalışmanın olduğu göz önüne alındığında, pandemi sürecinde öğretmenlerin karşılaştıkları riskler ve fırsatlara yönelik bir bakış sunmanın yanında esnek çalışma düzenlemesi olarak uzaktan çalışmanın okullara entegre edilmesinde eğitimci ve politika yapıcılara yol gösterici olabilir. Bununla birlikte, okul türü, branslar, kurum kültürü, tele çalısan karakteristiği, teknoloji kullanma becerisi, aile tipi ve evdeki sorumluluklar ve uzaktan çalışmanın organizasyonu bağlamındaki değişkenlikten hareketle yeni çalışmalar kurgulanabilir ve derinlemesine araştırmalar yapılabilir.

INTRODUCTION

The term telework first emerged in 1973. According to Nilles (1975), teleworkers can maintain their current performance and even increase their productivity through a work network running on computer and telecommunication technologies, instead of commuting physically. Telework has not been widely practiced for many years due to technical barriers and providing of too little support by employees and employers (Sa, 2015; López-Igual & Rodríguez-Modroño, 2020). By 2019, only 5.4% of workers in European Union countries generally worked from home, and this share has remained fairly unchanged since 2009. During the same period, however, the proportion of employees who occasionally work from home went up. It increased from 5.2% to 9% from 2009 to 2019 (Milasi, González-Vázquez & Fernández-Macías, 2021). Advancements in information and communication technologies (ICT) are an important factor increasing prevalence of telework (Wojčák& Baráth, 2017; Rocha & Amador, 2018). In Turkey, teleworking was included in the legislation with the item 14 of the Labor Law No. 4857, which includes on-call work, dated 06.05.2016 and numbered 6715 (Turan, 2019).

Telework is considered advantageous for highly skilled workers who do most of their work on computers, have a high degree of autonomy, and engage in knowledge-intensive activities (Milasi et al., 2021). Sostero et al., (2020) put forward a framework in which occupations can be labelled with low, medium or high teleworkability based on the degree at which they involve physical tasks. Occupations with little physical task content are rated as the easiest to telework whereas occupations that require a great deal of physical interaction with objects or people are rated as low-teleworkable ones. Educators or teachers, among other occupations, are regarded as highly teleworkable. However, there are few studies investigating how educators were affected by telework until the Covid-19 outbreak.

The COVID-19 pandemic has challenged traditional education globally (Sandvik et al., 2021). In an effort to contain the spread of the COVID-19 virus, most governments around the world have temporarily closed schools and emergency distance learning/teaching has been put in place (Peterson et al., 2020; Tomasik et al., 2021). The educators across the world have struggled to shift their practice from face-to-face to distance learning. Trust and Whalen (2020) stated that in this process, K-12 educators feel overwhelmed and unprepared to use distance learning/teaching strategies and tools; reported that they struggled to develop pedagogies suitable for changing situations such as uncertain or changing education or government directives, internet access problems and changing personal needs of students (Trust, &

Whalen, 2020). The need for much more planning and conscious attention to teacher preparation was stressed. (Barbour et al., 2020). While all this was going on, there was also a change in the working mode and educators or teachers continued their duties as teleworkers. It is seen that studies on how educators or teachers are affected by telework during the Covid-19 epidemic are increasingly attracting attention (Palma-Vasquez et al., 2021; Estrada-Muñoz et al., 2021).

Turkish Context

Online learning has a long history. At the K-12 level, it is known that online learning is a much narrower but growing field (Karen et al., 2019). It can be said that an acceleration has been achieved at the K-12 level, especially in the context of blended learning. However, comprehensive applications at the K-12 level took place with the Covid-19 pandemic, and within the scope of emergency distance learning/teaching applications, billions of learners from all over the world continued their education through distance learning applications. (Bozkurt, 2020). Following the announcement of the first pandemic case in Turkey in March 2020, there was a sudden shift from traditional classrooms to online learning environments. The Ministry of Education asked teachers to conduct synchronous online courses with their students (Civelek et al., 2021). The Education Information Network (EIN), which was offered to students, teachers and parents free of charge in 2012, was the platform used for distance education. EIN has been actively used since the beginning of the epidemic. Through EIN, students were able to connect to their synchronous online courses. Due to infrastructure problems, synchronous online classes via EIN were restricted in certain time periods depending on the grade level at the beginning of the process, while as of June 15, 2020, they were opened to all students 24 hours a day, 7 days a week (Tosun et al., 2021).

During the pandemic process, the effects of online learning and teaching practices have been examined by many researchers all over the world. Similar studies are also common in Turkey. Doğan and Koçak (2020) examined the effect of distance education activities carried out over the EIN system in the context of teacher opinions. Teachers stated that online teaching eliminates the concept of space, is economical, ensures that education continues without interruption, creates equal opportunities, and provides students with skills such as self-control and good time management. In addition, it was underlined by the teachers that infrastructure and technological problems could disrupt the process. Teachers stated that the participation was low due to the fact that the system was slow, it could not be opened from every device, there was no internet everywhere, and the students did not have the equipment to join (Doğan & Koçak, 2020).

Relevant Research

Telework has positive and negative effects on working time and work-life balance, health and well-being, employee performance and satisfaction (Grant et al., 2013; Timsal & Awais, 2016; Nakrošienė et al., 2019; Song & Gao, 2020; Coelho et al., 2020; Filardi et al., 2020).

Work-Life Balance

Telework has positive as well as negative effects on work-life balance. Personality traits of teleworkers, organizational or corporate culture, and work pattern determine the impact of telework on work-life balance (Vargas-Llave et al., 2020; Masilionytė, 2021). Telework offers employees flexibility in shaping their work hours as they wish and reducing the commuting time. Considering women's care workload among other things, emphasis is being placed on the role of telework in promoting women's labor force participation (Rodríguez-Modroño & López-Igual, 2021). On the other hand, the flexibility or autonomy provided by telework in organizing work schedule has the potential of causing chaos. Successful teleworkers must have certain personality traits such as working independently with little supervision, working without much social contact, reliability, and honesty (Beauregard et al., 2019). Depending on the work intensity; cases are caused where long, irregular and unsocial working hours and settings block family life and family life blocks working in turn (Vargas-Llave et al., 2020). This may result in overlapping of professional and domestic life, which can be particularly harmful for women (Gálvez et al., 2020). According to Rodríguez-Modroño and López-Igual (2021), there is still insufficient research into effects of telework on work-life balance with no concrete outcomes. Researchers point out that existing studies generally do not distinguish between different groups of teleworkers.

Health and Well-Being

While some aspects of telework positively affect health and well-being of employees, others cause difficulties. Telework provides flexibility in terms of determining the working time and environment and

commuting. Teleworkers move away from office rules such as commuting or arriving on time (Kaplan et al., 2018). This is counted as a factor that decreases work-related stress and maintains work-life balance (Eurofound & ILO, 2017). Work motivation, which can be defined as meeting expectations of employees, is important for work performance (Jackson et al., 2020) and is achieved through successful planning and management of telework (Fujii, 2020). Heiden et al. (2020) found that high-frequency teleworkers experienced higher levels of stress than less frequent teleworkers, due to uncertain organization and conflict. It is known that there is a close link between telework and intensive ICT use and health. Physical health problems such as fatigue, anxiety, headache, neck and back pain may be more common among teleworkers than traditional workers (Vargas-Llave et al., 2020). Besides, providing work support to teleworkers and good workplace relations is closely related to mental well-being of teleworkers. Individuals' personality traits affect their degree of coping with adverse working conditions or low social support, and this may be the answer to why some teleworkers are mentally stable and others fail (Hager, 2018).

Performance

Productivity refers to achievement of the work that will have positive results for the institution or organization within a certain period of time (Fujii, 2020). Some researchers indicate the positive relationship between telework and productivity. Productivity in telework is owed to several factors such as transferring the commuting time to work, individual employee's planning their working time according to their own biological clock, and more focused work with less interruption (Verbeke et al., 2008; Coelho et al., 2020). According to Okubo et al., (2021), productivity is affected from employee's experience and motivation, organization of work, clearly defined tasks, and length of teleworking hours. Kazekami (2020) revealed that too long teleworking hours reduce productivity. On the other hand, it is stated that staying away from the workplace and decreased visibility may jeopardize career development. Some other researchers suggest that high levels of commitment, high levels of trust and supportive relationships between the employee and the employer have a positive effect on career development. For qualified employees, telework can promote career development (Vargas-Llave et al., 2020).

Sostero, Milasi et al., (2020) claim that there are differences in telework between high and low paid workers, between white and blue collar workers, and between different genders. Categorizing occupations according to teleworkability and social interaction indexes, Sostero et al. (2020) characterized teachers, legal assistant professionals, general managers, legislators, sales agents and brokers as occupations that involve quite a lot of social interaction and are also fully remote workable. On the contrary, Beauregard et al., (2019) emphasized that people who are highly sociable as a personality trait are easily affected from absence of a workplace as a social environment and they feel socially isolated while working at home without others around.

Job Satisfaction

It is likely that allowing employees to choose their workplace themselves has positive effects on job satisfaction (Morganson et al., 2010). Spending some or all of the working hours out of the office provides greater flexibility and helps balance professional and personal roles. This is satisfactory for teleworkers (Fonner & Roloff (2010). According to Smith et al., (2018), it is essential to figure out the personality composition of teleworkers to optimize job satisfaction. They found out that extraversion, openness, agreeableness and conscientiousness are some traits which are positively associated with job satisfaction. They invited organizations to offer a wide range of communication channels to increase job satisfaction and retention of teleworkers with different personality traits and they suggested that teleworkers' job satisfaction is generally lower due to the lack of face-to-face communication. In response to the claim that social isolation is a big disadvantage of telework, it is thought that intense use of communication modes such as e-mail, telephone and video channels can strengthen teleworkers' perceived coworker support and closeness, thereby increasing their job satisfaction. Bae & Kim (2016) said that telework has stronger effects on job satisfaction of female employees than their male peers. They also implied the positive effect of institutional adoption of telework on employees' job satisfaction. Bae & Kim (2016), stated that female employees have the lowest job satisfaction level and female employees have higher expectations from a teleworking program in cases where telework is officially adopted but employees cannot use the program.

The Effects of Teleworking on Educators

Studies examining educators' experiences of working remotely are limited, but studies in this direction have become more visible during the pandemic. It is known that telework is affected by institutional, cultural, and personal factors, and studies conducted with educators indicate various opportunities and risks. Parkkola (2003) explored the possibilities of telework for educators at a university. The results of this study show that it can be a suitable tool to improve the working conditions of educators. Heiden et al., (2021) examined the relationship between the frequency and amount of telework among academics and their perceived health, stress, recovery, work-life balance, and intrinsic work motivation. Telework was often found to be connected with increased stress among academics who had the opportunity to telework. Palma-Vasquez et al., (2021) conducted a study in Chile. They worked with 278 teachers (mostly secondary and pre-school teachers, especially classroom teachers and those working for private or private-subsidized schools) who were required to carry out more than 50% of their duties then as teleworkers during the 2020 academic year. They reported a high prevalence of poor mental health. School type was shown to be an indicator of poor mental health; particularly, working in a private-subsidized school was associated with worse mental health. Estrada-Muñoz et al., (2021) studied primary and secondary school teachers' stress levels related to ICT use in Chile in the scope of educational telework adopted by Chile as a result of the health crisis caused by COVID-19. The data obtained from 3006 teachers across the country showed that 11% of the teachers suffered from techno anxiety and 7.2% from techno fatigue. Fatigue and anxiety factors were found higher among female teachers. Purwanto et al., (2020) analyzed advantages and disadvantages of working from home during the Covid-19 pandemic, based on the views of 6 Indonesian primary school teachers. According to teachers, the level of stress can be minimized by working from home. If the teacher is good at time management, they can complete the work faster and more effectively, increasing job satisfaction and thus further increasing their productivity and commitment. Meo & Dabenigno (2021) conducted a study with 678 secondary school teachers from the Buenos Aires Metropolitan Region in Argentina following Covid-19. The data revealed that various institutional or cultural factors such as teachers' financial inequalities, working environment and previous ICT pedagogical use of schools negatively affect teachers' mental workload.

Purpose

The inevitable telework explosion may have different degrees and types of impacts on teachers' experiences depending on the cultural, institutional, and social context. In Turkey, schools at all levels of compulsory education were closed due to the effects of COVID-19, and the Ministry of National Education implemented tele education or telework as an educational policy for teachers in order to ensure the continuation of education in all provinces. There are few studies examining the impact of telework on teachers. This study aims to provide an overview of the risks and opportunities faced by teachers during the pandemic and can guide the integration of telework into schools as a flexible working arrangement. To put it more clearly, the aim of this study is to examine the risks and opportunities faced by teachers who have no choice but to assume the role of teleworker according to their own perceptions under these conditions. The sub-problems of the research are as follows:

- 1. How are teachers' perceptions of the impact of telework on work-life balance?
- 2. How are teachers' perceptions of the impact of telework on health and well-being?
- 3. How are teachers' perceptions of the impact of telework on performance?
- 4. How are teachers' perceptions of the impact of telework on job satisfaction?

METHOD

The study was carried out in survey model in line with qualitative approach. Survey research aims to reveal the current situation, conditions or characteristics about events, assets, groups or institutions (Oral & Çoban, 2020). In-depth information can be collected from the participants by using qualitative data collection methods to reveal the views or characteristics of a large number of participants about the research topic (Büyüköztürk et al., 2020). In this context, it was thought that the survey research was suitable for the nature of the study.

Participants

Convenience sampling method was used in the study. This method, which aims to prevent loss of time, finance and workforce, was preferred because it allows to create a sample starting from the most accessible respondents (Büyüköztürk et al., 2020). A total of 225 teachers took part from public schools

across central and rural a city. The questionnaire was sent to teachers online to be completed on a voluntary basis. The participating teachers teach minimum 2 hours and maximum 43 hours a week online. The distribution of weekly online lesson hours conducted by teachers is as follows: (i) 2-8 hours taught by 29 teachers; (ii) 9-15 hours by 35 teachers; (iii) 15-21 hours by 39 teachers; (iv) 22-27 hours by 61 teachers (v) 28-35 hours by 79 teachers, and 36-43 hours taught by 7 teachers. The distribution of the participants by type of school they work at, professional experience, educational status and gender is presented in Table 1, and the frequencies regarding their subjects are presented in Table 2. Participants were assigned code names.

Table 1. Distribution of participants' school type, professional experience, educational background and gender (N=225)

School Type	F	Professional	F	Education	F	Gender	F
		Experience					
Pre-school	2	1-5 years	69	Bachelor's	92	Female	110
Elementary	44	6-10 years	66	Master's	33	Male	115
Secondary	80	11-15 years	31				
High school	90	16 years and above	59				
Role crosses grade	11	·					
levels (example:							
secondary+high)							

Distribution of participants by subject of teaching (n=225)

Subject	F	Subject	F
German Language	1	Vocational Branches	8
Arabic Language	4	Furniture and Interior Space Design	2
Physical Education	2	Accounting and Financing	3
Biology	3	Music	4
Computer and Instructional	10	Pre-school	2
Technology			
Geography	3	Special Education	11
Religious Culture and Moral	11	Psychological Counseling and Guidance	2
Knowledge			
Electricity	5	Art (Painting)	1
Electronics	3	Classroom Teaching	35
Science	15	Social Studies	6
Physics	4	History	5
Elementary Mathematics	10	Technology Design	1
English Language	15	Turkish Language and Literature	17
Chemistry	3	Turkish Language	19
Mechanical Technology	2	Mathematics	18

Data Collection Tools

The data of this study were basically collected by using an open-ended questionnaire. There were a total of 8 open-ended questions focusing on the effects of teleworking on different dimensions, and at the end of the questionnaire there was a multiple-choice question questioning the level of eagerness with teleworking. All other questions were demographic questions aimed at getting to know the participants, and had open-ended and multiple-choice types. Before the questionnaire was created, the literature was reviewed about organization, opportunities and risks of telework (Vargas-Llave et al., 2020). The scope of the measurement instrument was decided by closely looking at the studies on educators and telework (Parkkola, 2003; Heiden et al., 2021), and the questions were drafted. By using the draft questions, interviews were conducted with three subject teachers, each being from a separate branch. Collected data were examined and modifications were made on the questions as regarded necessary. The new versions of the questions were compiled as an online survey and sent to 20 teachers of 7 subjects. The data collected from the respondents were analyzed to guide further modifications on the tool. The draft questionnaire was

checked by specialists, and the questionnaire was finalized by following expert opinion. The questionnaire starts with the definition of telework, questioning of respondents' online education experience and demographic information. It continues with open-ended questions on the effects of teachers' teleworker roles on several variables including their work-life balance, health and well-being, performance and job satisfaction during the period dominated by the pandemic. Two of the questions are given below as an example: "What effect(s) do you think teleworking has had on your work stress?", "What effect(s) do you think teleworking has had on your family?" The questionnaire ends with the following item: "As a teleworking teacher, please rate your eagerness on a scale from 0 to 3." This item requires respondents to do rating according to their perceptions.

Data Analysis

Frequency analysis was performed on the data obtained from multiple choice questions. The data obtained through open-ended questions presented in the online questionnaire form were processed with content analysis. According to Yıldırım and Şimsek (2008), three types of coding can be mentioned in the coding of data. Coding according to previously determined concepts is one of them, and the dimensions indicated in the literature on the effects of telework (Eurofound & ILO, 2017; Heiden et. all, 2021) have been accepted as a code list. This code list has been used at both the category and themes level. During the analysis, the data were read repeatedly so that common phrases, words and implications could be elicited to explain all aspects of the content. Then, categories and themes were clarified, codes were created for similar or related content, and categories, themes and codes were associated (Bazeley, 2013). The results were tabulated after expressed in categories, themes, codes and frequencies (Yıldırım & Şimşek, 2008). Reliability was checked through identification of codes and calculation of frequencies by two of the researchers independently. The themes, codes and frequencies obtained by the coders were then compared. A good agreement was reached in the first round in the process of separately revealing the categories, themes and codes by the two researchers. The number of times the participants marked the relevant code. theme or category, that is, their frequencies, did not match in the first round and a second round of examination was conducted. As a result, consensus on frequencies was reached by the researchers. As for the intercoder reliability, the formula suggested by Miles and Huberman (1994) was used and the reliability ratio was found to be 0.83.

Ethical Permissions of the Research

The ethical permission for the study was obtained from the ethics committee of the institution where the study was conducted on 29.09.2020 with number 81614018-000-E.380.

FINDINGS

The study findings are presented under headings in the same order as the research questions.

Work-Life Balance

Table 3 displays samples of teachers' remarks about the effects of teleworking on their working hours, family relations and work-life balance in proportion with respective frequencies. Of the responding teachers, 58 reported positive effects on their working hours and regarded telework easier and flexible, better organized, time-saving and productive. A respondent (T165) stated that they were freed from getting ready and commuting for school by saying, "We save the time we normally spend to get prepared and get to the school."

30 teachers said that teleworking did not make a difference on working time despite quitting face-to-face instruction. It was stated that the schedule in virtual education was planned in the same way as in the real school setting with no change of timetable. 11 teachers mentioned both positive and negative sides of telework in respect to working time and planning. Their belief is that telework is beneficial for efficient use of time but planning issues disturb it. T68 said, "Time is saved quite a lot because there is no space problem, but planning becomes more difficult when there is no time limit."

On the other hand, 103 teachers named some negative effects of teleworking on working time. They claimed that their working duration increased, the timetable changed very often, in some cases the timetable could not be changed as it was set by a central body, lessons were filled too tightly or too loosely within a day. Apart from this, there are teachers who referred to situations that negatively affect the overall process. T14 said, "It made me fail in managing my time. Because you are never satisfied and you are in constant contact with parents. And this takes up all your time."

Of the participants, 37 stated that teleworking had a positive effect on their relationship with their families. Some of them detailed their views by saying that they are happy to spend time with their family, they pass more time as a family and their relationships were positively affected. For example, T133 and T137 were able to take more care of their children because they spent more together time at home. Unlike the foregoing, 48 teachers said that their family relations were not affected much, their relations did not change at all or they faced no problem in this respect. Another 6 teachers believe that telework offers not only benefits but also handicaps. In this scope, T167 said, "Because I can spend more time with my family members, it has a positive effect, but at the same time, dealing with students on the phone or over the computer all the time is limiting my communication with my family." The majority of the teachers think that teleworking had an adverse effect on their family relations. In this regard, T99 said, "It is difficult to keep the home usable due to things like illness, children, the elderly and family life." Some others had to compromise with caring their children because of the hectic work pace.

In response to the question concerning the effects of telework on work-life balance, 45 teachers stated that the balance could be struck more easily, they could spare more time for private life, life became more comfortable and they saved physical efforts. Another 36 reported no change in their work-life balance compared to face-to-face education. In this group, the respondent called T193 said, "Teleworking has made no adverse effect on my work-life balance." Another 18 teachers pointed out that teleworking led to both positive and negative effects on work-life balance, it requires orientation, their working conditions improved but they started pursuing an anti-social life, and the work intensity increased in spite of favourable efffects.

Almost half of the teachers stated that teleworking caused negative effects on their work-life balance. They defined teleworking as an inactive, tiring or backbreaking working mode which intertwines business and private life and kills the concept of work hour. The participant T210 expressed opinion in this regard as following: "We don't have much of a life balance. We are always busy with work from morning to midnight."

Health and Well-being

Analysis of the participants' views regarding how teleworking affected their health and well-being levels is summarized in Table 3 with quotations from the teachers about motivation and work stress along with frequencies of each type of views. To start with, 51 persons reported a positive effect of teleworking on motivation, emphasizing its stimulating, motivation-increasing, convincing and arousing effects. One of the respondents, T104, described the effect of teleworking on their motivation as following: "I gradually adapted and got used to it, and I believe it is more productive every passing day."

A group of 21 respondents indicated the varying impact of teleworking on their motivation. At large, the number of students attending the classes and their performance were considered as an important factor gearing their motivation. As an example, T91 said, "I am still motivated because it is not too tiring. But it sometimes affects my motivation badly not to be able to keep students under control and attract their interest in the lesson."

More than half of the participants reported that teleworking decreased their motivation. Some of them saw teleworking as a disappointing, boring and unpleasant experience. They listed demotivating factors as failure to fully communicate with students, students who are unwilling to participate in the lesson, infrastructure problems, or unproductivity. Some teachers even said that they did not want to do online courses or they no longer enjoyed teaching. There are also teachers who reported emerging of health problems due to this mode of work. As an example, T210 said, "I spend my whole day phone with students' parents. I can't put my phone down. My eyesight started to deteriorate, I always have a headache and I started feeling backache and neck ache."

As regards to work strees, 51 persons said that teleworking had a positive effect on work stress, referring to the comfortable new working environment. On this matter, T130 said, "It reduces work stress. The home environment is more relaxing." he said. 25 participants reported no effect of teleworking in this regard. For example, T66 said, "If my synchronous lessons are right after another, I have to make a plan for all classes beforehand. This is the stressful part of my job. But this is how it's meant to be in face-to-face education as well." 17 other participants stated that teleworking had a negative impact on work stress from time to time. On this subject, T140's said, "It's more convenient, but the intense pace of work puts pressure." T190 said, "As long as there are no technical difficulties, it does not cause work stress."

Conversely, 126 participants argued that their work stress got worse because of the teleworking. The factors leading to this perception were counted as the obligation of preparing new teaching content, technical deficiencies, unproductivity, student participation, communication or interaction problems, time

constraints, infrastructure problems and assignment of additional tasks. T23 said, "Since the education is not the way I want, it increases the stress and this also happens when I don't have adequate technical skills." T33 also said, "I get stressed when I can't get productivity at my work."

Performance

Table 3 displays the analysis results regarding the effects of teleworking on performance by quoting the teachers' direct remarks on work quality/productivity, relationships with students and professional development together with the frequencies of different types of views.

Concerning the effects of teleworking on teachers' job quality/productivity, 44 participants expressed positive opinions. While most of them preferred more generic phrases like "more productive" or "more positive", some of them provided the rationale. For example, T104 said, "When necessary methods and techniques are put into use, the process will have achieved its purpose." Similarly, T66 said, "I don't think it has ever hampered my work quality. A productive teacher can be productive at all times and under all circumstances." On the other hand, 9 participants were neutral about the effects of teleworking on work quality and productivity. One of them, T134, said, "I have not observed any positive or negative influences (of teleworking)." Some others defended that they experienced both positive and negative effects on work quality/productivity. The participant T217 explained it by saying, "I think it has a bit of a negative result on my productivity due to my poor planning skills."

140 other participants reported negative consequences of teleworking on their job quality/productivity. Claiming that it is not possible to achieve the productivity level in face-to-face education, the participants drew attention to reasons such as weak Internet infrastructure, communication and interaction problems, students' lack of equal opportunities and participation, online course design problems and overtime. On this subject, T15 said, "Not a chance: it won't be as efficient as face-to-face education. But it can be useful in imperative situations."

When effects of teleworking on teacher-student relations were examined, it was found that 24 participants listed positive outcomes including chance of making contact at all times, more transparent and realistic communication. T50 said, "It leaves a positive impact because it keeps together all the time." Another 19 participants argued that they felt no difference compared to face-to-face education. 22 others implied that teacher-student relations were affected both for the better and for the worse or their relations were not as good as in face-to-face education. As an example, T66 said, "We are establishing strong ties, even in the distance. As I turn on my camera in all classes, my mimics, facial expressions, reactions etc. help me to establish good bonds with the students. This gain is doubled when they also turn on their camera. Of course, it cannot be as effective as face-to-face teacher-student relationship. Over time, this period will also become ordinary and there will be no problem left."

148 of the study participants expressed opposite views. They found relations with students to be broken, inadequate, frivolous and cold in this fashion of teaching. As an example, T25 said, "For the teacher who cannot make eye contact with the student, it is very difficult to establish a bond with the student."

Table 3. *Effects of teleworking on work-life balance, health and well-being and performance from teachers'* perspective

Category	Work	Work-Life Balance			Health and Well- being		Performance		
Theme	Working time and planning	Family relations	Work-life balance	Motivation	Work stress	Work quality/ productivity	Teacher-student relations	Professional Development	
Code		Frequency							
Positive	58	37	45	51	48	44	24	136	
Both effect	11	6	18	21	17	18	22	7	
No effect	30	48	36	17	25	9	19	25	
Negative	103	119	112	126	126	140	148	41	
Other	21	15	14	10	9	14	12	16	

Job Satisfaction

The teachers were asked to rate their eagerness for telework from 0 and 3. On the scale, 0 refers to absence of such a wish while 3 means a very strong wish for telework. As a result, 23 teachers marked 3 implying a high level of tendency, 90 rated 2 indicating a moderate level of the same and 74 teachers marked 1 adding that they are a little willing to telework. Lastly, 38 teachers stated that they do not want to telework under any circumstances. The participants' scores of interest in telework are shown in Table 4 together with their distribution by gender and professional experience.

Table 4.

Teachers' ratings of eagerness for telework

Eager to	Frequency	Male	Female	Professional Experience					
telework				1-5 years	6-10 years	11-15 years	16 years and +		
Not at all (0)	38	25	13	8	15	7	8		
A little (1)	74	36	38	26	19	10	19		
Fairly (2)	90	42	48	29	25	10	26		
Highly (3)	23	12	11	6	7	4	6		
Total	225	115	110	69	66	31	59		

Table 4 demonstrates no significant difference between male and female respondents in eagerness to telework. But it must be noted that more males do not want to do any telework at all (0 point) with no significant difference under other levels of eagerness. As for the variance against professional experience, it can be seen that teachers with professional experience of 1-5 years and 16 years or more have a milder stance on telework compared to the other sub-groups. The rate of respondents with a fair (2) and high level of eagerness (3) to telework is also higher among those with 16 years or more experience, and it is followed by the teachers with 1-5 years of experience.

The teachers' eagerness for telework was analyzed in relation with their subject of teaching. As displayed in an earlier table, teachers from different subjects participated in the study in varying numbers. According to Table 4, the teachers' willingness for telework is indifferent to their subject of teaching because teachers in the same field scored their telework tendency at different levels. For example, 7 out of 35 classroom teachers in the study rated their eagerness with 0 point, 15 teachers marked 1, and the rest of 13 rated 2 or 3. The case is applicable for many other subjects with the exception of electronics teachers as all of the 3 participants of this field reported no eagerness for telework. Apart from this, the teachers of German, Accounting and Financing, Pre-school, Psychological Counseling and Guidance chose only lowest ratings (0 and 1) with no marking of higher ratings (2 and 3). But it must be remembered that the total number of teachers participating from these subjects was low. The distribution of the teachers' eagerness to telework by their subject of teacher is given in Table 5.

Table 5.

Teachers' eagerness to telework by subject of teaching

How eager are you to telework?					
Not at all	A little	Fairly	Highly		
(0)	(1)	(2)	(3)	Total	
0	1	0	0	1	
0	1	3	0	4	
0	1	1	0	2	
1	1	1	0	3	
3	3	3	1	10	
1	1	0	1	3	
0	3	7	1	11	
0	4	1	0	5	
3	0	0	0	3	
2	5	6	2	15	
2	1	0	1	4	
3	2	5	0	10	
1	2	8	4	15	
0	2	1	0	3	
	(0) 0 0 0 1 3 1 0 0 3 2 2 3 1	Not at all A little (0) (1) 0 1 0 1 0 1 1 1 3 3 1 1 0 3 0 4 3 0 2 5 2 1 3 2 1 2	Not at all (0) A little (1) Fairly (2) 0 1 0 0 1 3 0 1 1 1 1 1 3 3 3 1 1 0 0 3 7 0 4 1 3 0 0 2 5 6 2 1 0 3 2 5 1 2 8	Not at all (0) A little (1) Fairly (2) Highly (3) 0 1 0 0 0 1 3 0 0 1 1 0 1 1 1 0 3 3 3 1 1 1 0 1 0 3 7 1 0 4 1 0 3 0 0 0 2 5 6 2 2 1 0 1 3 2 5 0 1 2 8 4	

Tablo 5. continued...

Subject		How eager are you to telework?					
	Not at all (0)	A little (1)	Fairly (2)	Highly (3)	Total		
Mechanical Technology	0	1	1	0	2		
Mathematics	2	7	5	4	18		
Vocational Branches	1	0	7	0	8		
Furniture and Interior Space Design	0	1	1	0	2		
Accounting and Financing	1	2	0	0	3		
Music	1	1	2	0	4		
Pre-school	0	2	0	0	2		
Special Education	1	6	4	0	11		
Psychological Counseling and Guidance	0	2	0	0	2		
Art (Painting)	0	0	0	1	1		
Classroom Teaching	7	15	11	2	35		
Social Studies	0	3	2	1	6		
History	1	1	3	0	5		
Technology Design	0	0	1	0	1		
Turkish Language and Literature	7	1	6	3	17		
Turkish Language	1	5	11	2	19		
Total	38	74	90	23	225		

DISCUSSION, CONCLUSION and IMPLICATIONS

In this study, nearly half of the participant teachers expressed negative opinions about effects of teleworking on working time and planning. They attributed their impression to the increased workload, planning, and infrastructure shortcomings. Parkkola (2003) pointed out that the local organizational culture should be taken into account before starting telework, and unavailability of the needed technology may pose additional challenges. On the other hand, about half of the teachers evaluated effects of teleworking on teachers' working time and planning with a mild approach. Among those holding this view, some expressed teleworking timesaving while on the one hand highlighting problems of planning at the same time. Among the participants there were positive evaluators of the picture. They think that telework is a flexible, convenience or advantageous mode as it helps save the time spent for school preparation and travel. These findings are consistent with previous research (Timsal & Awais, 2016).

Lastly, there were those who stated that remote work is no different from face-to-face education in terms of working time and planning. Özdoğan &Berkant (2020) reported that some advantages and disadvantages were emphasized in their study in which they examined the views of teachers working at the K2 level on distance education during the pandemic period in Turkey. Teachers stated that it is an advantage to be able to provide education regardless of time and place, and to meet the training needs within certain restrictions. In addition, they listed the lack of internet and computers, inequality of opportunity, and technical problems as disadvantageous situations that need to be solved.

From the perspective of family relations, a significant proportion of the teachers reported adverse effects of teleworking. They based their views on the difficulty of creating a comfortable or proper working environment, the evaporation of the concept of working hours, and committing lesser time to family members, especially children. Conversely, some teachers pointed out that they were able to spend more time with the family thanks to the teleworking. Coelho et al. (2020) stated that the opportunity to spend more time with the family is one of the main advantages of telework. Sarı & Nayır (2020) presented the pandemic period, based on international reports, various themes for problems in education. Researchers pointed to sub-themes of confusion and stress for teachers, distance education and unprepared teachers, difficulties in creating, maintaining and developing distance learning under the theme of problems arising from stakeholders. He also identified gaps in childcare as a sub-theme and stated that during this process, families were forced to take care of children because they had to be at home with their children all day. There is a large research repertoire that examines the effects of situations such as the conflict of telework

with family or family conflict with work (Abendroth & Reimann, 2018; Beno, 2020; Solís, 2017). There are differences in the results of studies on the effect of teleworking on work-family balance and employee performance. Solís (2017) drew attention to the importance of the level of responsibility that individuals have outside the working environment. Teleworkers with high levels of responsibility are more likely to experience family conflict with work. Being at home when the individual is not available to deal with matters outside of work can lead to more conflict. It is therefore important that teleworkers have the flexibility to carry out their tasks according to a schedule set by them. Teleworking programs can be organized to allow them to create opportunities to engage in non-work activities at the most appropriate time. Abendroth & Reimann (2018) stated that the effects of teleworking on work-family conflict depend on the context. Researchers, who draw attention to the fact that the high level of expectations from employees such as working long hours, being constantly available and being talented fuels the conflict between work and family, underline the potential of workplace culture and managerial support to soften this conflict.

As another variable, work-life balance of nearly half of the teachers was found to be affected badly by teleworking. They listed reasons such as the blurring of the boundary between work and private life, and neglected private life because of the increased time committed to work, and this finding is in agreement with previous studies (Grant et al., 2013). Tura & Akbaşlı (2021), colleague solidarity among teachers within the school organization, both by meeting social needs and by providing support and guidance on professional issues indicated that it was created. While this situation contributes to the professional development of teachers, new ideas and education it can also ensure the dissemination of applications among colleagues. Varışlı (2021) reported that school is the place where teachers experience professional socialization and pointed out that transformations are inevitable in the professional socialization of teachers with online education during the pandemic period. In addition, some teachers pointed out that teacherteacher interaction became weaker in this working mode. Some of the teachers mentioned both strengths and weaknesses of teleworking. The main strength was noted as time efficiency or flexibility of working conditions, and the weakness was the increased pace of working schedule or disrupted social life. Some said that they were able to maintain the balance more easily and thus their life became more comfortable with teleworking. Another some stated that their work-life balance was not affected from teleworking or they managed to keep up with this way of life over time. Irawan to et al. (2021) underlined the potential of telework to complement one's work life and personal life and the clear prospects it offers for increasing productivity provided that it is implemented with the right policy. Lizana & Vega-Fernadez (2021) examined the impact on work-life balances of teleworking teacher in Chile during the Covid-19 pandemic. It has been revealed that the this inevitable change in the way teachers work creates excessive workload, causes conflicts in work-family balance and has a negative impact on teachers' health. Khateeb, (2021) examined the effect of the experiences of full-time teachers working in primary, secondary, high school and high school classes in well-known private schools in India during the pandemic process on work-life balance. Teachers teaching online reported that work-life conflict was not significantly different compared to face-to-face teaching. It has been determined that the perception of work-life conflict changes among different demographic groups. Older teachers and teachers with more experience perceived less work-life conflict. It was determined that unmarried teachers had more work-life conflict experience than their married colleagues, and it was stated that the study was inconsistent in terms of work-life conflict perception of married/unmarried, childless/children and extended/nuclear families.

About motivation, a significant proportion of the teachers reported negative impact of teleworking. They explained their lower motivation with poor communication or interaction with students, weak infrastructure of the Internet and inefficient work. Bakırcı et al., (2021) examined the problems faced by secondary school teachers during the pandemic period in Turkey. It has been reported that teachers experience student-related problems during the distance education process. It has been reported that students are reluctant to participate in the distance education process and students have difficulties in accessing the computer/internet, and this situation causes low motivation in students because it makes it difficult for students to attend classes. Tuna & Türkmendağ (2020) examined how the motivation of teleworkers in different sectors in Turkey was affected during the pandemic period. It has been revealed that the motivation of teleworkers has been negatively affected by reasons such as the emergence of the need for technology infrastructure, the unpreparedness of the stakeholders to work remotely, lengthening of the working time, the difficulty of holding meetings in homes with children, the different behaviors of the managers, and the increase in the workload. Some teachers even talked about health problems facing them because of teleworking, and this finding is in line with previous studies (Vargas-Llave et al., 2020). On the other hand, a part of the teachers stated that their motivation was positively affected, and some stated

that they were affected in both ways. According to those respondents, working from the comfort of their home increased their motivation or their students' profile or communication and interactions with students was a determinant of motivation. Fujii (2020) emphasized the importance of organizing telework well in order to meet employee expectations.

As for work stress caused by teleworking, more than half of the respondents noted an increase in their work stress. More specifically, they felt more distressed because of their responsibility of preparing teaching content, technical deficiencies, unproductive lessons or students' participation problems, internet infrastructure problems, and assignment of additional tasks. Likewise; Palma-Vasquez et al., (2021) found out that teachers perceived more stressors, had worse well-being, and experienced more feelings of grief, distress, and stress during the pandemic. In particular, excessive workload was specified as an important predictor of this situation since it has the potential to impose overtime work. Baker et al., (2020) found that the closing of schools brought particular challenges to teachers such as unfamiliarity with online teaching models, communicating with students and their parents, documenting their work, and attending meetings. It was also found out that the increased job demands provoke teachers' feelings of inadequacy deteriorating their well-being. On the other hand, some of the respondents reported reduced work stress thanks to the relaxing new working environment. Tuna & Türkmendağ (2020), in Turkey, reported that teleworkers put forward positive aspects such as saving time, being able to take care of the house more, increasing work efficiency and creativity due to autonomy at home, and a comfortable and flexible working environment. While a part of the teachers stated that they sometimes suffered from work stress, some stated that teleworking did not have any effect on their work stress.

As to work quality or productivity, personal experience of most of the teachers implies that these variables were affected negatively from teleworking. It was stated that productivity could not be achieved at the desired level due to reasons such as internet infrastructure problems, communication and interaction problems, students' deprival of equal opportunities and their participation in lessons, problems in online class design, and overtime work. Similar results were found in studies examining teachers' views on online learning during the pandemic process in Turkey (Cantürk &Cantürk, 2021; Kazu et al., 2021). Kazu et al. (2021), reported that teachers working in K12 schools thought that distance education courses were inefficient during the pandemic process. Teachers stated that the lack of participation due to the lack of technological infrastructure and the reluctance of students are the reasons for this inefficiency. Cantürk & Cantürk (2021) reported that access problems are common in teachers' online learning experiences due to reasons such as students not attending or leaving the course. On the one hand, they reported that some teachers describe online learning as flexible, comfortable, fun, exploratory, effective and functional. Some of the teachers in this study stated that their work quality and productivity were either positively affected or not negatively affected. Tuna & Türkmendağ (2020) reported that the readiness of employees to telework affects productivity. According to the researchers, employees may not be ready for reasons such as adaptation, technological infrastructure, operational and business structure. Beauregard et al., (2019) suggested that telework success has to do with the personality trait of the teleworker. While individuals open to the experience find teleworking more interesting, extroverted people may find it difficult to engage in this mode. According to researchers, outgoing people tend to suffer from the absence of a real workplace involving others and to feel socially isolated when working from home on their own. Kazekami (2020) found that reasonable telework hours increase productivity, but too long hours of telework decrease the productivity. Yıldırım (2020) reported that there was a confusion in the working hours of the teachers during the pandemic period, and the working hours spread almost throughout the day. The researcher pointed out that the working conditions of teachers should be rearranged by considering these experiences.

When it comes to interaction with students, most of the teachers reported weak, inadequate, frivolous or cold teacher-student communication during the remote work period. Fana et al., (2020) found out that some teleworkers find it difficult to communicate, receive meaningful feedback and exchange ideas through digital platforms. Bakioğlu & Çevik (2020) determined that teachers had problems in communicating with students in distance education during the pandemic process. On the contrary, some stated that their communication was more transparent and realistic adding that communication opportunities increased in parallel with technology. Bayburtlu (2020) reported that in addition to online lessons, teachers try to keep communication with their students alive by using various communication platforms during the pandemic process. In this context, he drew attention to the existence of diligent and willing teachers. Some of the teachers claimed that students' profile was as important as a determining factor in this regard. About few of the teachers felt no difference from face-to-face education.

In connection with professional development, around some of the teachers perceived a negative change in their development because of teleworking. They reported no or negative professional

development. However, most of the participants indicated progress in their professional development. They believe that teleworking improved them about recognizing new technologies and using them for instruction, content knowledge, and using new teaching methods and techniques. Bakırcı et al. (2021), determined that the distance education experienced by teachers during the pandemic contributed to their professional development. Teachers stated that they learned to use many computer programs, software and hardware effectively. Bakioğlu and Çevik (2020) examined the views of teachers on how distance education experiences affect professional development during the pandemic process. The results obtained are consistent with this study. Most of the teachers stated that their professional development was affected positively. Contrary to many teachers who stated that they had the opportunity to improve themselves in the process, some teachers made negative evaluations due to the fact that the teaching activities did not reach their full purpose and communication problems with the students. In this study, a few teacher mentioned both positive and negative effects of teleworking on professional development. Some teachers implied taking place of new learning thanks to teleworking, but they added that they hardly recorded social development. Lastly, some said no progress or decline in their professional development.

Finally, the teachers' eagerness to do telework was measured on a range of 0 to 3. It can be said that the participants fell into two sub-groups, one rating 0 or 1, and the other rating 2 or 3. The rate of those who do not want to telework at all was about 17%, and those who are a little eager were around 33%. The rate of those who are fairly eager (2 points) was 40%, and highly eager ones constituted about 10% of the participants. According to Purwanto et al., (2020), telework increases job satisfaction and productivity of a teacher who is good at time management.

In total, about 22% of men and 12% of women who participated in this study are not at all happy with telework. Overall, the percentages of female and male teachers who rated their desire to telework as 1, 2 or 3 were close to each other. Rodríguez-Modroño and López-Igual (2021) drew attention to the importance of interactions between gender and the type of telework arrangement. According to the researchers, working from home does not actually improve women's quality of work life, but reinforces traditional gender roles. Emphasis was placed on the need for special legislation and regulatory frameworks maintaining the working conditions and work quality of teleworkers by taking into account the type of telework regulation and gender differences.

The distribution of the teachers' telework eagerness by experience shows that teachers with 16 years or more professional experience reported the highest level of eagerness. Approximately 54% of them were fairly or highly eager to telework. They are followed by teachers with 1-5 years of experience corresponding to 51% of the same sub-group of respondents. Nearly 45% of teachers with 6-10 years of experience and around 48% of teachers with 11-15 years of experience stated that they were fairly or highly eager. Fonner & Roloff (2010) pointed out that the flexibility of working time and place offered by telework helps achieve a good work-life balance, resulting in job satisfaction for teleworkers. Other findings reached here reveal that the teachers' willingness for telework is not affected from subject of teaching.

This study examines effects of telework on teachers who became compulsory teleworkers at K12 level during the COVID-19 pandemic. It aims to reveal the opportunities and possible risks that telework holds for teachers. To this end, analysis was carried out on how varying personal, institutional and professional conditions of teleworking teachers affected their working time and scheduling, family relationship, work-life balance, motivation, work stress, productivity, teacher-student relationships, professional development and job satisfaction. According to the participants, the risks were weigted since they had to switch to telework during the ongoing educational emergency. In response to the inquiry about effects of telework on work-life balance, health and well-being, performance and job satisfaction during the pandemic, negative statements were recorded often by half of the teachers, even by more than half in some cases. Despite the urgent planning of the process and the imperative quality of the situation, the rate of teachers with positive outcomes looks considerably high. Besides, it was frequently repeated that teleworking provided opportunities for teachers' professional development, enhancing their professional development.

The teachers carried out educational activities at a period of time when telework was urgently initiated and the whole world was looking for ways to cope with the epidemic anxiety, and they suggested a number of risks and opportunities they encountered in the meanwhile. The respondents predominantly reported negative effects of teleworking. Nonetheless, a small portion of teachers did not prefer telework at all. About half of the participating teachers were fairly or highly eager to adopt telework as a working mode. Hence, it might be suggested that telework can be an option of education in K12 schools as a part of flexible work schedule after the pandemic is over. Therefore, it is recommended to do future research into telework in K12 schools.

Considering the scarcity of studies examining the impact of telework on teachers, the present study can guide educators and policy makers in integrating telework into schools as a flexible working scheduling besides providing an insight of risks and opportunities that teachers are facing during the pandemic. Also, further studies can be designed and in-depth research can be done assuming that school type, subject of teaching, institutional culture, teleworker characteristics, technology use skills, family type and domestic responsibilities, and organization of telework may vary largely in different contexts.

This study is targeted at finding out the effects of teleworking on teachers during the COVID-19 pandemic process and it does not include data on effects of telework on teachers outside or beyond the pandemic-struck era. In addition, the findings reflect the teachers' thoughts or perceptions, they are not objective. The data were collected through an online survey consisting of open-ended questions developed by doing literature review and obtaining expert opinions. As known, schools were closed in March 2020 and teachers completed that school term from distance. The data were collected from teachers who were still teleworkers in the 2020-2021 academic year. Data collection lasted nearly three months covering October, November and December of 2020. The study sample consisted of teachers who voluntarily participated in an online survey from all across an eastern province of Turkey. There is not an equal distribution of schools and teachers across subjects of teaching or school level (i.e. pre-school, elementary, secondary, high school).

REFERENCES

- Abendroth, A. K., & Reimann, M. (2018). Telework and work–family conflict across workplaces: Investigating the implications of work–family-supportive and high-demand workplace cultures. In S. L. Blair & J. Obradović (Eds.), Contemporary Perspectives in Family Research: Vol. 13. The Work-Family interface: Spillover, Complications, and Challenges (pp. 323-348). Emerald Publishing Limited, Bingley.
- Bae, K. B., & Kim, D. (2016). The impact of decoupling of telework on job satisfaction in US federal agencies: Does gender matter?. *The American Review of Public Administration*, 46(3), 356-371.
- Baker, C. N., Peele, H., Daniels, M., Saybe, M., Whalen, K., Overstreet, S., & The New Orleans, T. I. S. L. C. (2020). The Experience of COVID-19 and Its Impact on Teachers' Mental Health, Coping, and Teaching. *School Psychology Review*, 1-14.
- Bakioğlu, B., & Çevik, M. (2020). Science Teachers' Views on Distance Education in the COVID-19 Pandemic Process. *Electronic Turkish Studies*, 15(4).
- Bakırcı, H., Doğdu, N., & Artun, H. (2021). Investigation of Professional Achievements and Problems of Science Teachers in the Distance Education Process of Covid-19 Pandemic Period. *Journal of Ahi Evran University Institute of Social Sciences*, 7(2), 640-658.
- Barbour, M. K., LaBonte, R., Hodges, C., Moore, S., Lockee, B., Trust, T., ... & Kelly, K. (2020). Understanding pandemic pedagogy: differences between emergency remote, remote, and online teaching. *State of the Nation: K-12 e-Learning in Canada*.
- Bayburtlu, Y. S. (2020). Turkish Education During Covid-19 Pandemic Distance Education Process. *Electronic Turkish Studies*, 15(4).
- Beauregard, T. A., Basile, K. A., & Canónico, E. (2019). Telework: Outcomes and facilitators for employees. In R. N. Landers (Ed.), The Cambridge handbook of technology and employee behavior (pp. 511-543). Cambridge: Cambridge University Press.
- Beno, M. (2020). Mobile teleworking-its effects on work/life balance, a case study from Austria. In R. Silhavy (Ed.), *Artificial Intelligence and Bioinspired Computational Methods: Vol, 1225. Advances in intelligent systems and computing* (pp. 161-171). Cham.
- Bozkurt, A. (2020). Images and perceptions of primary school students towards distance education during coronavirus (Covid-19) pandemic: a metaphor analysis. *Uşak Üniversitesi Eğitim Araştırmaları Dergisi*, 6(2), 1-23.)
- Büyüköztürk, Ş., Çakmak, E. K., Akgün, Ö. E., Karadeniz, Ş., & Demirel, F. (2020). Bilimsel araştırma yöntemleri. *Pegem Akademi*, 1-360.
- Cantürk, G. & Cantürk, A. (2021). Determining the opinions of English teachers about the distance online education experience in Covid-19 pandemic by using metaphors. *International Journal of Current Approaches in Language, Education and Social Sciences (CALESS)*, 3 (1), 1-37.
- Civelek, M., Toplu, I., & Uzun, L. (2021). Turkish EFL teachers' attitudes towards online instruction throughout the Covid-19 outbreak. *English Language Teaching Educational Journal*, 4(2), 87-98.

- Coelho, F. A., Faiad, C., Rego, M. C. B., & Ramos, W. M. (2020). What Brazilian workers think about flexible work and telework?. *International Journal of Business Excellence*, 20(1), 16-31.
- Doğan, S., & Koçak, E. (2020). A study on distance learning activities in the context of the EBA. *Ekonomi ve Sosyal Araştırmalar Dergisi*, 7(14), 110-124.
- Estrada-Muñoz, C., Vega-Muñoz, A., Castillo, D., Müller-Pérez, S., & Boada-Grau, J. (2021). Technostress of Chilean Teachers in the Context of the COVID-19 Pandemic and Teleworking. *International journal of environmental research and public health*, 18(10), 5458.
- Eurofound & ILO., (2017). Working anytime, anywhere: The effects on the world of work. Publications Office of the European Union, Luxembourg, and the International Labour Office, Geneva.
- Filardi, F., Castro, R., Tulio, M., ve Zanini, F. (2020). Advantages and disadvantages of teleworking in Brazilian public administration: analysis of SERPRO and Federal Revenue experiences. EBAPE.BR, 18 (1), 28–46.
- Fujii, K. (2020). Workplace motivation: Addressing telework as a mechanism for maintaining employee productivity. *Portland State University*, 1-36.
- Gálvez, A., Tirado, F., & Martínez, M. J. (2020). Work–life balance, organizations and social sustainability: Analyzing female telework in Spain. *Sustainability*, 12(9), 3567.
- Grant, C. A., Wallace, L. M., & Spurgeon, P. C. (2013). An exploration of the psychological factors affecting remote e-worker's job effectiveness, well-being and work-life balance. Employee Relations, 35(5), 527-546. https://doi.org/10.1108/ER-08-2012-0059
- Hager, F. W. (2018). Links between telecommuting, social support and mental well-being among teleworkers. *International Journal of Business and Management*, 7(2), 36-58. DOI: 10.20472/BM.2018.6.2.003
- Heiden, M., Widar, L., Wiitavaara, B., & Boman, E. (2021). Telework in academia: associations with health and well-being among staff. Higher Education, 81(4), 707-722.
- Heiden, M., Widar, L., Wiitavaara, B., & Boman, E. (2021). Telework in academia: associations with health and well-being among staff. *Higher Education*, 81(4), 707-722.
- Irawanto, D. W., Novianti, K. R., & Roz, K. (2021). Work from Home: Measuring Satisfaction between Work–Life Balance and Work Stress during the COVID-19 Pandemic in Indonesia. *Economies*, 9(3), 96.
- Jackson, K. S., Wilson, D., & Borden, D. (2020). Telework: Achievements and Blunders. *The Journal of Government Financial Management*, 69(1), 58-59.
- Kaplan, S., Engelsted, L., Lei, X. ve Lockwood, K. (2018). Unpackaging manager mistrust in allowing telework: Comparing and integrating theoretical perspectives. *Journal of Business and Psychology*, 33(3), 365-382. doi:10.1007/s10869-017-9498-5
- Karen T. Arnesen, Joshua Hveem, Cecil R. Short, Richard E. West & Michael K. Barbour (2019) K-12 online learning journal articles: trends from two decades of scholarship, Distance Education, 40:1, 32-53, DOI: 10.1080/01587919.2018.1553566).
- Kathryn L. Fonner & Michael E. Roloff (2010) Why Teleworkers are More Satisfied with Their Jobs than are Office-Based Workers: When Less Contact is Beneficial, Journal of Applied Communication Research, 38:4, 336-361, DOI: 10.1080/00909882.2010.513998.
- Kazekami, S. (2020). Mechanisms to improve labor productivity by performing telework. *Telecommunications Policy*, 44(2), 101868.
- Kazu, İ. Y., Bahçeci, F., & Yalçın, C. K. (2021). The Metaphorical Perceptions of Teachers on the Distance Education at schools during the Coronavirus Pandemic. Firat University Journal of Social Sciences, 31(2), 701-715.
- Khateeb, F. R. (2021). Analysis Of Work-Life Conflict Construct In Case Of Telework-A Case Study Of Teachers From Kashmir Valley (India) During Covid-19 Pandemic. *SEA-Practical Application of Science*, (26), 143-154.
- Lizana, P. A., & Vega-Fernadez, G. (2021). Teacher teleworking during the covid-19 pandemic: Association between work hours, work–family balance and quality of life. *International Journal of Environmental Research and Public Health*, 18(14), 7566.
- López-Igual, P., & Rodríguez-Modroño, P. (2020). Who is teleworking and where from? exploring the main determinants of telework in europe. *Sustainability*, *12*(21), 8797.
- MacDonald, M., & Hill, C. (2021). The educational impact of the Covid-19 rapid response on teachers, students, and families: Insights from British Columbia, Canada. PROSPECTS. https://doi.org/10.1007/s11125-020-09527-5

- Masilionytė, G. (2021). Quality of Life and Work-Life Balance in the Cotext of Teleworking: Theoretical Application of the Problem.
- Meo, A. I., & Dabenigno, V. (2021). Teletrabajo docente durante el confinamiento por COVID19 en Argentina. Condiciones materiales y perspectivas sobre la carga de trabajo, la responsabilidad social y la toma de decisiones. *Revista de Sociología de la Educación-RASE*, 14(1), 103-127.
- Milasi, S., González-Vázquez, I., and Fernández-Macías, E., "Telework before the COVID-19 pandemic: Trends and drivers of differences across the EU", OECD Productivity Working Papers, 2021-21, OECD Publishing, Paris.
- Miles, M. B., and A. M. Huberman. 1994. Qualitative data analysis: An expanded sourcebook (2nd ed.). Thousand Oaks: CA: Sage Publications.
- Morganson, V. J., Major, D. A., Oborn, K. L., Verive, J. M., & Heelan, M. P. (2010). Comparing telework locations and traditional work arrangements: Differences in work-life balance support, job satisfaction, and inclusion. *Journal of Managerial Psychology*.
- Nakrošienė, A., Bučiūnienė, I., & Goštautaitė, B. (2019). Working from home: characteristics and outcomes of telework. International Journal of Manpower.
- Nilles, J. (1975). Telecommunications and organizational decentralization. *IEEE Transactions on Communications*, 23(10), 1142-1147.
- Okubo, T., Inoue, A., & Sekijima, K. (2021). Teleworker performance in the COVID-19 era in Japan. *Asian Economic Papers*, 20(2), 175-192.
- OraL, B., & Çoban, A. (2020). *Kuramdan Uygulamaya Eğitimde Bilimsel Araştırma YTntemleri*. Pegem Akademi, Ankara. Doi 10.14527/9786257880176.
- Özcan, E. K. E. N., Tosun, N., & Eken, D. T. (2020). Urgent and compulsory move to Distance education upon covid-19: a general evaluation. *Milli Eğitim Dergisi*, 49(1), 113-128.
- Özdoğan, A. Ç., & Berkant, H. G. (2020). The examination of stakeholders' opinions on distance education during the Covid-19 epidemic. *Milli Eğitim Dergisi*, 49(1), 13-43.
- Palma-Vasquez, C., Carrasco, D., & Hernando-Rodriguez, J. C. (2021). Mental Health of Teachers Who Have Teleworked Due to COVID-19. *European Journal of Investigation in Health, Psychology and Education*, 11(2), 515-528.
- Parkkola, H. (2003). Possibilities of telework as an organisational tool for the flexible arrangement of teachers' work from the teacher's viewpoint.
- Pérez Pérez, M., Martínez Sánchez, A., de Luis Carnicer, P., & José Vela Jiménez, M. (2005). The synergism of teleworking and information and communication technologies. Journal of Enterprise Information Management, 18(1), 95-112. https://doi.org/10.1108/17410390510571510
- Peterson, L., Scharber, C., Thuesen, A., & Baskin, K. (2020). A rapid response to COVID-19: one district's pivot from technology integration to distance learning. Information and Learning Sciences. 461-469.
- Petrakova, A. V., Kanonire, T. N., Kulikova, A. A., & Orel, E. A. (2021). Characteristics of Teacher Stress during Distance Learning Imposed by the COVID-19 Pandemic. Вопросы образования, 1 (eng), 93-114
- Purwanto, A., Asbari, M., Fahlevi, M., Mufid, A., Agistiawati, E., Cahyono, Y., & Suryani, P. (2020). Impact of Work From Home (WFH) on Indonesian Teachers Performance During the Covid-19 Pandemic: An Exploratory Study. International Journal of Advanced Science and Technology, 29(05), 6235-6244.
- Rocha, C. ve Amador, F. (2018). Telework: conceptualization and issues for analysis. EBAPE.BR, 16(1), 152-162.
- Rodríguez-Modroño, P., & López-Igual, P. (2021). Job Quality and Work—Life Balance of Teleworkers. *International Journal of Environmental Research and Public Health*, 18(6), 3239.
- Rodríguez-Modroño, P., & López-Igual, P. (2021). Job Quality and Work—Life Balance of Teleworkers. *International Journal of Environmental Research and Public Health*, 18(6), 3239.
- Sa, Y. (2015). An analysis of the effects of family responsibility and teleworking volume on satisfaction with teleworking in the United States federal government. https://doi.org/10.13016/M2X53W
- Sandvik, L. V., Smith, K., Strømme, A., Svendsen, B., Aasmundstad Sommervold, O., & Aarønes Angvik, S. (2021). Students' perceptions of assessment practices in upper secondary school during COVID-19. *Teachers and Teaching*, 1-14.
- Sarı, T., & Nayır, F. (2020). Education in the Pandemic Period: Challenges and Opportunities. Electronic Turkish Studies, 15(4), 959-975.

- Smith, S. A., Patmos, A., & Pitts, M. J. (2018). Communication and teleworking: A study of communication channel satisfaction, personality, and job satisfaction for teleworking employees. *International Journal of Business Communication*, 55(1), 44-68.
- Solís, M. (2017). Moderators of telework effects on the work-family conflict and on worker performance. *European Journal of Management and Business Economics*, 26(1), 21-34.
- Song, Y. ve Gao, J. (2020). Does telework stress employees out? A study on working at home and subjective well-being for wage/salary workers. *Journal of Happiness Studies*, 21, 2649-2668. doi:10.1007/s10902-019-00196-6
- Sostero M., Milasi S., Hurley J., Fernández-Macías E., Bisello M., Teleworkability and the COVID-19 crisis: a new digital divide?, Seville: European Commission, 2020, JRC121193.
- Timsal, A., & Awais, M. (2016). Flexibility or ethical dilemma: An overview of the work from home policies in modern organizations around the world. Human Resource Management International Digest, 24(7), 12-15. https://doi.org/10.1108/HRMID-03-2016-0027
- Tomasik, M. J., Helbling, L. A., & Moser, U. (2021). Educational gains of in-person vs. distance learning in primary and secondary schools: A natural experiment during the COVID-19 pandemic school closures in Switzerland. International Journal of Psychology, 56(4), 566-576.).
- Tosun, N., Mıhcı, C., & Bayzan, Ş. (2021). Challenges encountered by in-service K12 teachers at the beginning of the Covid-19 pandemic period: the case of Turkey. *Participatory Educational Research*, 8(4), 359-384.
- Trust, T. & Whalen, J. (2020). Should teachers be trained in emergency remote teaching? Lessons learned from the COVID-19 pandemic. *Journal of Technology and Teacher Education*, 28(2), 189-199.
- Tuna, A. A., & Türkmendağ, Z. (2020). Remote working practices and the factors affecting work motivation during the covid-19 pandemic period. *Journal of Business Research-Turk*, 12(3), 3246-3260.
- Tura, B. & Akbaşlı, S. (2021). Factors Affecting Teacher's Innovation. *Uluslararası Temel Eğitim Çalışmaları Dergisi*, 2(1), 15-28.
- Turan, B. Ö. (2019). Enformasyon Teknolojisiyle Evden Tele çalışma Türkiye'De Hizmet sektörü üzerinden Bir Inceleme (Master's thesis, Marmara Universitesi (Turkey)).
- Vargas-Llave, O., Mandl, I., Weber, T., & Wilkens, M. (2020). Telework and ICT-based mobile work: Flexible working in the digital age. Luxembourg: Publications Office of the European Union.
- Vargas-Llave, O., Mandl, I., Weber, T., & Wilkens, M. (2020). Telework and ICT-based mobile work: Flexible working in the digital age. *Luxembourg: Publications Office of the European Union*.
- Varışlı, B., (2021). Transformation of education in the pandemic era: sociological reflections of online education. *Avrasya Uluslararası Araştırmalar Dergisi*, 9(26), 237-249.
- Verbeke, A., Schulz, R., Greidanus, N., & Hambley, L. (2008). *Growing the virtual workplace: The integrative value proposition for telework*. US: Edward Elgar Publishing.
- Verbeke, A., Schulz, R., Greidanus, N., & Hambley, L. (2008). *Growing the virtual workplace: The integrative value proposition for telework*. US: Edward Elgar Publishing.
- Wojčák, E., & Baráth, M. (2017). National culture and application of telework in Europe. European Journal of Business Science and Technology, 3(1), 65-74.)
- Yıldırım, A., & Şimşek, H. (2008). Sosyal Bilimlerde Nitel Araştırma YTntemleri (6. Baskı). Ankara: Seçkin Yayıncılık.
- Yıldırım, K. (2020). Lessons from an exceptional distance education experience. *Critical Reviews in Educational Science*, *I*(1), 7-16.