

# The Factors Shaping Temporal Experience: A Mixed-Methods Study on How Homemakers Perceive the Passage of Time

Zamansal Deneyimi Şekillendiren Faktörler: Ev Kadınlarının Zamanın Geçişini Nasıl Algıladıkları Üzerine Karma Yöntemli Bir Çalışma

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## Abstract

Research on the passage of time judgments indicates that this phenomenon is highly complex and dependent on many factors. This study examines how the general passage of time and the passage of appropriating time are perceived among homemakers. Employing a nested mixed-methods research design, data was collected from 411 participants through snowball and convenience sampling. Participants ranged from 18 to 81 years ( $M = 38.16$ ,  $SD = 10.558$ ). Quantitative data were analyzed using nonparametric tests and ordinal logistic regression analysis, while qualitative data were examined through reflexive thematic analysis. The quantitative findings reveal that age, education level, household size, and time appropriation significantly predict the perception of time passage. Specifically, individuals aged 27-54 and those with a high level of time appropriation experience time as passing more quickly, whereas illiterate individuals and those in households with four or fewer members perceive time as progressing more slowly. Education level plays a crucial role in time perception, with illiterate individuals demonstrating the slowest perception of time, while higher education levels are associated with an accelerated sense of time passage. Qualitative findings suggest that the passage of time judgments are shaped by the dynamic interplay of physical environment, social relationships, and emotional experiences. Overall, the study underscores the significance of demographic, psychological, social, spatial, and temporal factors in shaping time perception and highlights the necessity of a multidimensional approach to understanding interindividual variations in the experience of time passage.

**Keywords:** Passage of Time, Time Appropriation, Homemakers, Mixed Design, Psychology.

## Öz

Zamanın geçiş hızına dair araştırmalar bu konunun son derece karmaşık ve birçok faktöre bağlı olabileceğini göstermektedir. Bu çalışma, ev kadınları örnekleminde, zamanın genel geçiş hızının ve kendilenen zaman dilimlerinin nasıl algılandığını incelemektedir. İç içe geçmiş karma araştırma deseni kullanılarak gerçekleştirilen çalışmada, 411 katılımcı yer almıştır ve katılımcılara kartopu ve kolayda örnekleme teknikleri erişilmiştir. Katılımcıların yaşları 18 ile 81 arasında değişmektedir ( $Ort = 38.16$ ,  $SS = 10.558$ ), nicel veriler parametrik olmayan testler ve sıralı lojistik regresyon analiziyle, nitel veriler ise refleksif tematik analizle değerlendirilmiştir. Nicel bulgular, zamanın genel geçiş hızını yordayan faktörlerin yaş, eğitim durumu, hanedeki birey sayısı ve zamanı kendileme olduğunu göstermektedir. Özellikle 27-54 yaş aralığındaki bireyler ve zamanı kendileme düzeyi yüksek olan kişiler, zamanı daha hızlı algılamakta; okuryazar olmayan bireyler ve dört veya daha az kişinin yaşadığı hanelerde zaman algısının daha yavaş olduğu belirlenmiştir. Kendilenen zamanın geçiş hızında ise eğitim düzeyi kritik bir rol oynamakta, okuryazar olmayan bireylerin en yavaş zaman algısına sahip olduğu, eğitim düzeyi arttıkça zamanın daha hızlı geçtiğinin düşünüldüğü saptanmıştır. Nitel bulgular, zaman algısının bireyin bulunduğu fiziksel çevre, sosyal ilişkiler ve duygusal deneyimlerin dinamik etkileşimiyle şekillendiğini ortaya koymaktadır. Çalışmanın genel sonuçları, zamanın geçiş hızına ilişkin algının, demografik, psikolojik, sosyal, mekânsal ve zamansal faktörlerin karşılıklı etkileşimiyle şekillendiğini göstermekte, zaman algısının bireyler arası farklılaşmasını anlamada çok yönlü bir yaklaşımın gerekliliğini vurgulamaktadır.

**Anahtar Kelimeler:** Zaman Geçışı, Zamanı Kendileme, Ev Kadınları, Karma Desen, Psikoloji.

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## **The Factors Shaping Temporal Experience: A Mixed-Methods Study on How Homemakers Perceive the Passage of Time**

Most research on time perception focuses on duration judgements. These studies are commonly conducted in the form of laboratory experiments that examine how participants process short durations (Droit-Volet et al., 2004; Brown et al., 2013). Passage of time judgements, however, are based on different processes than the perception of short durations (Droit-Volet & Wearden, 2016) and therefore need to be examined separately. Both the general passage of time and appropriating time periods present crucial opportunities for this field of research. As a new concept, time appropriation is the process of psychologically making certain parts of time one's own (Karasu, 2021). The individual identifies certain parts of time with his/her own self and experiences special meanings and positive emotions in these time periods. Time appropriation periods make it more possible for individuals to behave according to their inward orientations. Individuals are more able to have ownership, control and shape the time periods that they have appropriated (Karasu et al., 2025). With these characteristics, time appropriation is a psychological process that provides information about the individual's self.

The passage of time in the time periods that are appropriated is perceived by individuals in varying ways; time can sometimes be perceived as faster, sometimes slower, and sometimes in its normal flow (Karasu, 2021). The basic factor determining this perception seems to be associated with the intensity of temporal information processing (Flaherty, 2018). If appropriation processes have a role in increasing the intensity of experience in the processing of temporal information, time is perceived as passing slowly. On the contrary, if appropriation processes have a decreasing effect on the intensity of experience, time is perceived as passing fast. If these processes keep the intensity of experience at a normal level, time is perceived as passing as usual (Flaherty, 2017; Karasu, 2021).

In some cases, individuals tend to move to a similar state with different states of consciousness such as relaxation or meditation (Karasu & Cesur, 2023). Research on this subject shows that mindfulness states increase sensitivity to time and prolong perceived time (Berkovich-Ohana et al., 2012; Droit-Volet et al., 2015; Kramer et al., 2013). In other words, these states of consciousness contribute to individuals to increase the intensity of conscious information processing regarding time, which leads to the perception that time passes more slowly than it does (Flaherty, 2018). Multidirectional passage assessments of time appropriation periods provide an important opportunity to gain more in-depth knowledge on time perception. Moreover, the first available findings on time appropriation periods are based on exploratory information from employed individuals. Time appropriation periods generally cover off-hours or morning-evening hours (Karasu, 2021). This result shows that time appropriation periods are closely related to regular and income-generating jobs. However, there is no knowledge about time appropriation periods and time perception of individuals who do not belong to this category (e.g., homemakers<sup>i</sup> or the unemployed). Therefore, the primary aim of this study is to analyze the time appropriation periods and the general passage of time in the sample of homemakers.

### **Passage of Time and S- Shaped Curve Model**

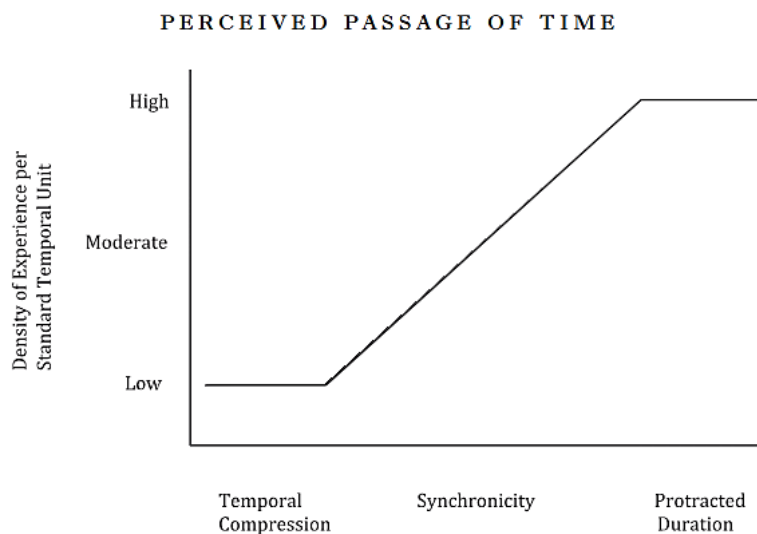
Judgements about the passage of time may be made retrospectively or immediately (Droit-Volet and Wearden 2016; Wearden, 2015). Retrospective judgements focus on individuals' perception of how fast or slow past days, months or longer periods (e.g., the pandemic or teenage years) have passed. In contrast, individuals' judgements of how fast or slow the present is passing are immediate judgements of the passage of time.

The passage of time is associated with the relation between standard temporal units (e.g., year, week, hour, minute) and density of experience (density of conscious information processing) (Flaherty, 1993,

1999). Standard temporal units have been analogized to a series of boxes that are identical and can carry and transfer the load of experience. Density of experience refers to the extent to which an individual consciously uses cognitive processes such as attention, affection, memory and information processing. If the experience density per standard temporal unit is high, the passage of time is perceived as longer, in other words, slower. However, at low levels of this density, time is perceived as fast, and at medium levels, time is perceived at a normal level (Flaherty, 2018). The results of these time experiences are explained by the ‘S-shaped curve’ model (see Figure 1).

**Figure 1**

*The Relationship Between Time Perception and Experience Density Per Standard Temporal Unit (Flaherty, 2018, p.19)*



The context in which time passes and how this context is perceived by the individual are critical in time passage judgements. Any context is essentially complex. However, some contexts consist of typical social interactions and involve routine complexities. On the other hand, some contexts contain more problematic complexity. Since there is less requirement for conscious attention in situations of routine complexity, a retrospective judgement may lead to the perception that there is less experience than would otherwise be the usual case. However, such situations do not usually lead to the feeling that time passes slowly, because the level of usage of cognitive resources is low during routine complexity (Flaherty, 2018). This leads to a lower-than-normal density of experience within the standard temporal unit. Hence, time is perceived as passing fast. In other words, the low density of experience per standard temporal unit leads to the perception of the passage of time as ‘temporal compression’, in other words, in a fast way. On the other hand, problematic complex situations cause individuals to focus their attention more densely on the present moment. This leads to a perception that time passes more slowly. Such situations require the individual to use cognitive resources, such as attention, to a higher degree and thus lead to a deeper cognitive engagement with both the situation and the self. Thus, the perceived experience density increases within a standard time unit (Flaherty, 2018; Flaherty & Meer, 1994).

The effects of autobiographical memories based on individuals’ own life experiences are also crucial in the experience of temporal compression. Episodic memory is highly sensitive to temporal changes and loss of information (Conway & Rubin, 1993; Solso et al., 2007). Consequently, the passage of time has negative effects on the recall of information stored in episodic memory. Moreover, whenever personal experiences are recalled, the relevant experience is reconstructed with the influence of previous experiences and the current context (Conway & Pleydell-Pearce, 2000). This process may cause the temporal density of past experiences to be perceived lower than its original form. This change in

perception causes individuals to feel that the past is passing very fast (Flaherty, 2018; Flaherty & Meer, 1994).

The perception of time is generally shaped in accordance with the flow of standard temporal units. This temporal experience tends to occur in the absence of normal social interactions and problems, when there is moderate anxiety about the situation, and when there is moderate cognitive engagement between the self and the situation. Moderate cognitive involvement leads to normal levels of stimulus complexity, which in turn leads to mild or moderate experience density per standard temporal unit (Flaherty, 1993; 2017; Flaherty & Meer, 1994). In this regard, time is perceived as passing at a usual fast pace (see Figure 1).

Indeed, increasing the cognitive resources available for processing temporal information, especially factors such as attention, leads to a longer and more stable perception of time (Brown, 2008). Similarly, emotional experiences such as boredom and sadness are associated with slower passage of time, whereas positive emotions and high arousal states elicit the feeling that time passes faster (Droit-Volet et al., 2018; 2020; Droit-Volet & Wearden, 2016). The findings seem to be contradictory when the rate of passage of time is judged in terms of different developmental periods. While some studies do not find any evidence of a significant change in the passage of time at different ages (Droit-Volet & Wearden, 2015; Friedman & Janssen, 2010), some of them support the common perception that the passage of time is faster with age (Wittmann & Lehnhoff, 2005). These studies suggest that judgements of the passage of time may be highly complex and dependent on many factors.

### **The Purpose of the Study**

The literature on the passage of time shows that this topic has been studied within the framework of different samples and factors. However, no studies have been conducted in the sample of homemakers and in the context of time appropriation. This study aims to fill this gap in literature and contribute to the studies on the passage of time. In addition, in order to have a better understanding of the limits of the concept of time appropriation, the study focuses on homemakers' appropriation of time and their judgements about the passage of time periods structured in this way. In the study, both quantitative and qualitative methods were applied together using a nested mixed research design. This approach enabled in-depth analysis not only of the role of appropriation on the passage of time, but also of the demographic characteristics of the participants, their interpretations of their time experiences, and the contextual dynamics of these experiences. The aim of this study is to analyze in detail homemakers' perceptions of the passage rate of time appropriation periods and their perceptions of the general passage of time.

## **Method**

### **Mixed Methods Design and Data Integration**

This study adopted a nested mixed methods design that afforded equal priority to both quantitative and qualitative approaches, facilitating a comprehensive examination of the complex construct of time perception. The selection of a nested design reflects the multidimensional nature of the phenomenon, encompassing not only measurable individual characteristics but also subjective, contextual, and socially situated experiences.

Data collection occurred concurrently, with quantitative and qualitative data analyzed separately using methodologically appropriate procedures: nonparametric and ordinal logistic regression analyses for quantitative data, and reflexive thematic analysis for qualitative data. Integration of the two strands

primarily took place at the interpretation stage, employing a narrative integration strategy that systematically juxtaposed and synthesized findings.

This approach involved aligning quantitative results with qualitative themes to elucidate how statistical patterns are instantiated in lived experiences, thereby enriching the overall understanding of the research problem. Rather than relying on formal joint displays, the discussion was structured to present quantitative findings alongside their qualitative counterparts, enabling a holistic synthesis that captures nuances beyond the reach of single-method analyses. By combining the generalizability afforded by quantitative methods with the contextual depth of qualitative inquiry, this integrative strategy enhanced the study's methodological rigor and validity, addressing the inherent complexity of time perception.

### Participants

In the study, 420 homemakers were recruited. The data of 9 participants who filled out the forms incompletely were omitted from the data analysis; therefore, the analyses were performed with 411 participants. The sample size was determined based on practical considerations such as snowball (Cohen & Arieli, 2011) and convenience sampling (Bornstein et al., 2013) techniques. This size was considered sufficient to capture demographic variability and provide generalizable findings.

Participants' ages ranged from 18 to 81 years ( $M = 38.16$ ,  $SD = 10.558$ ); the number of children ( $N = 347$ ) ranged from 1 to 11 ( $M = 2.92$ ,  $SD = 1.511$ ); and the total number of individuals in their household ( $N = 411$ ) ranged from 1 to 13 ( $M = 4.69$ ,  $SD = 1.751$ ). Other demographic information of the participants is shown in Table 1.

**Table 1**

*The Distribution of Participants by Different Demographic Characteristics*

Demographic Characteristics	Category	f (%)
Age	≤ 26	45(10.9)
	27-54	332 (80.8)
	55+	34 (8.3)
Education Status	Illiterate	49 (11.9)
	Primary School	104 (25.3)
	Middle School	77 (18.7)
	High School	110 (26.8)
	Associate degree	23 (5.6)
Work Experience	Undergraduate	48 (11.7)
	Have	123 (29.9)
Marital Status	None	288 (70.1)
	Single	44 (10.7)
	Married	340 (82.7)
Family Type	Divorced	27 (6.6)
	Nuclear family	345 (83.9)
Child Status	Large family	66 (16.1)
	Have	347 (84.4)
Income	None	64 (15.6)
	Less than the minimum wage	111 (27.0)
	17.003 TL-29.999 TL	145 (35.3)
	30.000 TL-39.999 TL	83 (20.2)
	40.000 TL-49.999 TL	47 (11.4)
50.000 TL and +	25 (6.1)	

\*The minimum wage was 17,002 TL at the time the data was collected.

## Instruments

***Socio-Demographic Information Form.*** The questions prepared by the researcher to find out the information of the participants such as age, gender, work experience, educational status, marital status, family type, number of people in the household, information about children, income level.

***Time Appropriation Scale (TAS).*** The scale which was developed by Karasu and colleagues (2025) in order to understand individuals' relationship with time consists of three sub-dimensions: self-discipline, spontaneity and inwardness. The self-discipline dimension consists of items related to control, ownership and commitment to utilizing time as well as items related to personal development, feeling autonomous and being disciplined. The spontaneity dimension consists of items indicating that appropriated time periods allow people to behave according to their innate orientations, expectations and feelings without any external pressure. It also includes related items such as calm and serene states. This dimension refers to time periods when people know themselves better, feel like themselves and think that they have more awareness. The inwardness dimension consists of items indicating that inner states such as meaning, harmony, peace, satisfaction, compassion, being at peace with oneself, and feeling strong-willed are experienced more during the time periods they are themselves. The scale is scored in 5-point Likert format (1 = Strongly disagree, 5 = Strongly agree). The reliability coefficients for the sub-dimensions of the scale are as follows:  $\alpha = .812$  for self-discipline,  $\alpha = .817$  for spontaneity and  $\alpha = .868$  for inwardness.

Since the TAS was used for the first time in a different study, confirmatory factor analysis was conducted in the present study. Before the analysis, 46 participants who were found to be outliers and violated the assumption of multiple normality using the Mahalanobis distance method were omitted from the analysis. Confirmatory factor analysis was conducted on the data of 365 participants. The evaluation of the model fit indices was based on the criteria proposed by Browne and Cudeck (1992) and Garson (2006). According to these criteria, the acceptable lower limit for CFI and TLI indices was determined as .80; values between .90 and .95 were defined as good fit and values above .95 were defined as excellent fit. In terms of RMSEA index, values below .05 were classified as excellent, values between .05 and .08 were classified as good, and values between .08 and .10 were classified as acceptable fit (Garson, 2006). In addition, in terms of norm chi-square (CMIN) value, values below 2 were considered as excellent fit and values below 5 were considered as acceptable fit (Kline, 2015). According to the confirmatory factor analysis results, it is seen that the model fits the data well;  $\chi^2 = 791.810$ ,  $Sd = 344$ ,  $p < .001$ ,  $\chi^2 / Sd = 2.302$ ,  $RMSEA = .06$ ,  $TLI = .89$ ,  $CFI = .90$ .

***Passage of Time Information Form.*** There are currently no validated instruments for measuring the passage of time. For this reason, the relevant questions used in recent studies examining the roles of age (Droit-Volet, 2019), emotions (Droit-Volet & Wearden, 2016), substance use (Ogden & Faulkner, 2022), and the Coronavirus pandemic (Ogden, 2020, 2021; Droit-Volet et al., 2020) on the passage of time were adapted for this study. The form includes four questions that are related to the general passage of time and the passage of the appropriated time. How fast/slow do you feel that the time you feel belongs to you passes?, How fast/slow do you feel that the time you feel a part of yourself passes?, How fast/slow do you feel that the time you allocate to yourself passes? and How does time pass for you in daily life in general? Since the concept of time appropriation is not widely used in Turkish, three different lexical groups were used to cover this concept: Time that I feel belongs to me, time that I feel a part of myself and time that I allocate to myself. These word groups are also used in the TAS. In the analysis, the common median value of the responses from these three questions was used. Participants ticked one of 5 categorized responses (1 = Very slow, 2 = Slow, 3 = Normal speed, 4 = Fast, 5 = Very fast). A higher value indicates that time passes faster.

***Appropriated Time Periods Questionnaire.*** These are open-ended questions prepared by the researcher to examine the time experiences of the participants in their appropriated time periods within the framework of certain time perception (slow, fast, normal/usual). These questions are as follows: When you think about the times that you feel belonging to yourself/feel a part of yourself/allocate for yourself; (1) Is there a situation where you feel that time passes slowly? If so, could you explain, (2) Is there a situation where you feel that time passes fast? If yes, could you explain, and (3) Is there a situation where you feel that time passes at a normal/usual speed? If so, could you explain. In addition, in this form, open-ended questions were asked about the time spent by the participants inside and outside the home and with whom. These questions are as follows: When you feel you belong to yourself, feel a part of yourself and allocate time for yourself; (1) in which room/part of your home do you usually stay, (2) where/where do you usually stay outside the home, (3) with whom do you usually stay?

## **Procedure**

Ethics committee approval for the study was received from Van Yuzuncu Yil University (2024/14-06). The study instruments were prepared in questionnaire format and printed on paper. Data was collected through face-to-face interviews between July and September 2024. Only adult volunteer homemakers aged 18 years and older participated in the study. Before starting the data collection, participants were given brief and understandable information about the aim and scope of the study along with the Consent Form. Socio-Demographic Information Form, Passage of Time Information Form, Appropriated Time Periods Questionnaire and TAS were presented respectively. The study ended with the Debriefing Form. The applications were carried out one-to-one in places where the participants felt comfortable and safe and generally in their home environments. For participants who were illiterate or had difficulty in reading the forms, the applications were read aloud and completed. Each application lasted about 20 minutes.

## **Analysis**

### ***Quantitative data***

The 9 missing participants who did not complete the passage of time questionnaire and the TAS were omitted from the data set. Little's Missing Completely at Random (MCAR) test was performed for the missing data in these instruments. The results of the expectation-maximization algorithm showed that the missing data were randomly distributed ( $p > .05$ ) and missing data were imputed according to this algorithm.

The quantitative analysis strategy used in the study was based on methods commonly preferred in studies on the passage of time (Alatrany et al., 2022; Ogden, 2020; 2021). Since time passage judgements are ordinal data, nonparametric tests were preferred in the analyses. Mann-Whitney U and Kruskal-Wallis tests were used to determine the relationship between demographic characteristics such as age, gender, education level, number of people living in the household, and TAS subscale scores on the general passage of time and the passage of appropriated time. The differences between the passage rates were analyzed by Wilcoxon Signed Ranks test.

The age variable was divided into three groups according to equal-width intervals in SPSS: 26 years and younger, 27-54 years, 55 years and older. Spearman correlation analysis was applied to assess the relationships between demographic factors such as the general passage rate of time, the passage of appropriated time, the scores of the sub-dimensions of the TAS and age. Finally, ordinal logistic regression analyses were performed to evaluate the extent to which these variables predict the general passage of time and the passage of appropriated time. In this study, the analyses related to the factor structure of the TAS were performed using AMOS 20 software, and other statistical analyses were performed with SPSS 22 software.

## Qualitative data

393 of the participants responded to the open-ended questions and their responses to these questions generally varied between one and three sentences. The data were analyzed using the Reflexive Thematic Analysis (Braun & Clarke, 2006; Terry et al., 2017). This method was preferred because it allows the researcher to systematically identify patterns and common themes among the responses of participants. This approach, unlike post-positivist epistemology, requires an integration of the researcher's analytical and interpretive efforts. The analysis process was inductive. The researcher familiarized himself with the data by reading the participant responses several times on different days, and in this process, the ideas and possible codes were noted in detail. The coding process was carried out using MAXQDA Analytics Pro 24.5.1 software with the help of AI Assist extension. In order to increase the trustworthiness of the coding process, a systematic and iterative method was adopted, focusing on capturing the main focus of the participants' experiences. Initial codes were carefully analyzed and continuously compared and refined to identify key meanings and patterns in participants' responses. This process aimed at providing both an in-depth understanding of the data and a solid basis for analytical decisions. In order to strengthen the analysis of the data and increase the trustworthiness of the results, participant quotations supporting the themes were systematically used in the analysis. This ensured that the results were consistent and harmonized with the data. The final analysis was structured around slow, fast and usual passage of time and included participant quotes supporting each theme.

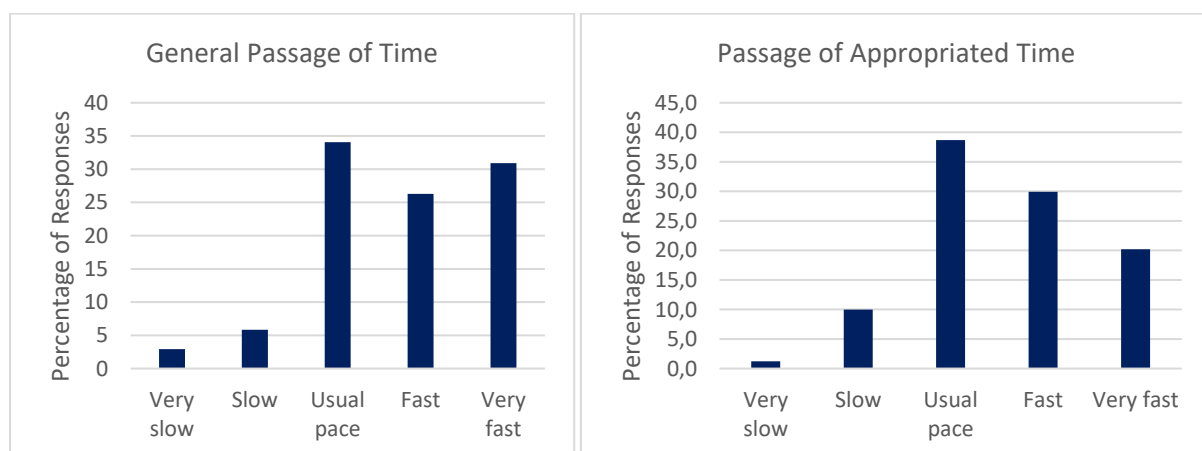
## Results

### Quantitative Analysis Findings

Comparing the participants' perceptions of the general passage of time and the passage of appropriated time periods, the majority of the participants (57.2%) perceived the general passage of time as "fast" or "very fast". However, the rate of participants' perception of time appropriation periods as "fast" or "very fast" is relatively lower with 50.1%. Whereas 34.1% of the participants perceived the general passage rate of time as 'usual', the rate of perceiving the passage of appropriated time as 'usual' was 38.7%. These findings show the perceptual differences between the perceptions of the general passage of time and the passage of appropriated time (see Figure 2).

**Figure 2**

*Percentages of Response for the General Passage of Time and the Passage of the Appropriated Time*



The demographic descriptive statistics presented in Table 2 show the differences in the participants' perceptions of the general passage of time and the passage of appropriated time by demographic characteristics. By age groups, participants in the 27-54 age group perceived both the general passage of time ( $M = 3.90$ ) and the passage of appropriated time ( $M = 3.62$ ) at a higher level than the other age groups. In terms of educational level, undergraduate graduates perceived both the passage of appropriated time ( $M = 3.92$ ) and the general passage of time ( $M = 3.85$ ) faster than other educational levels. Individuals with work experience perceive both the passage of appropriated time ( $M = 3.72$ ) and the general passage of time ( $M = 3.86$ ) faster than individuals without work experience.

**Table 2**

*Descriptive Statistics for Mean and Median Passage of Time of Participants in Demographic Groups*

		Mean (SD)/Median	
		Passage of Appropriated Time	General Passage of Time
<i>Age</i>	≤ 26	3.53 (1.057)/3	3.24 (1.026)/3
	27-54	3.62 (0.930)/4	3.90 (0.970)/4
	55+	3.26 (1.082)/3	3.12 (1.320)/3
<i>Education Status</i>	Illiterate	3.27 (1.016)/3	3.35 (1.091)/3
	Primary School	3.58 (0.921)/3.5	3.84 (1.080)/4
	Middle School	3.55 (0.940)/3	3.70 (1.040)/4
	High School	3.61 (0.968)/4	3.77 (1.029)/4
	Associate degree	3.52 (0.994)/4	4.30 (0.822)/5
	Undergraduate	3.92 (0.919)/4	3.85 (0.945)/4
<i>Work Experience</i>	Have	3.72 (0.954)/4	3.86 (0.944)/4
	None	3.52 (0.959)/3	3.72 (1.085)/4
<i>Marital Status</i>	Single	3.64 (1.059)/4	3.39 (.895)/3
	Married	3.57 (0.936)/3	3.85 (1.032)/4
	Divorced	3.56 (1.121)/4	3.30 (1.203)/3
<i>Family Type</i>	Nuclear family	3.59 (0.930)/4	3.80 (0.998)/4
	Large family	3.52 (1.113)/3	3.56 (1.254)/3
<i>Child Status</i>	Have	3.60 (0.943)/4	3.84 (1.049)/4
	None	3.48 (1.054)/3	3.36 (0.932)/3
<i>Income</i>	Less than the minimum wage	3.47 (1.025)/3	3.49 (1.119)/3
	17.003 TL-29.999 TL	3.55 (0.942)/3	3.79 (1.049)/4
	30.000 TL-39.999 TL	3.66 (0.928)/4	3.88 (0.942)/4
	40.000 TL-49.999 TL	3.77 (0.937)/4	4.02 (0.967)/4
	50.000 TL and +	3.60 (0.913)/3	4.00 (0.957)/4

In terms of marital status, single individuals perceived the passage of time ( $M = 3.64$ ) faster than the other groups, while married individuals judged the general passage of time ( $M = 3.85$ ) at a higher level than the other marital status groups. Individuals with nuclear family structure perceived both the passage of appropriated time ( $M = 3.59$ ) and the general passage of time ( $M = 3.80$ ) faster than individuals with large family structure. According to income level, participants in the 40,000-49,999

TL income group perceived both the general passage of time ( $M = 4.02$ ) and the passage of appropriated time ( $M = 3.77$ ) at a higher level than other income groups.

Table 3 presents the correlations between the general passage of time, the passage of time appropriation, and the sub-dimensions of time appropriation (self-discipline, spontaneity, and inwardness). The results of the analyses show that there is a positive and significant relationship between the general passage of time and the general passage rate of time ( $r = .32$ ). In addition, the general passage of time and the passage of appropriated time showed positive and significant correlations with the sub-dimensions of the TAS (self-discipline, spontaneity, and inwardness). These findings indicate that as the scores of the dimensions of time appropriation increase, the perceived passage of time tends to increase.

**Table 3**

*The Correlation Coefficients between Time Passage and the Dimensions of Time Appropriation*

Variables	N = 411 Mean (SD)	Correlations				
		1	2	3	4	5
1. Passage of appropriated time	3.55 (.8777)	----	.32**	.14**	.14**	.17**
2. General passage of time	3.76 (1.045)		----	.13*	.20**	.17**
3. Self-discipline	3.86 (.667)			----	.58**	.58**
4. Spontaneity	3.96 (.750)				----	.70**
5. Inwardness	3.95 (.734)					----

*Notes.* All measurements were made using 5-point Likert-type scales. \*\* $p < .01$ ; \* $p < .05$ .

The relationships between the demographic characteristics given in Table 1 and the passage of appropriated time and the general passage of time were analyzed with Mann-Whitney U and Kruskal-Wallis tests. Accordingly, no significant difference was found between the factors of work experience (have, don't have) and family types (nuclear family, large family) and appropriated and general passage of time scores ( $p > .05$ ). Similarly, no significant difference was found between child status (have, don't have) and appropriated time passage scores ( $p > .05$ ), whereas a significant difference was found in terms of general time passage scores,  $U = 8035.500$ ,  $z = -3.679$ ,  $p < .05$ .

The difference of educational status on appropriate and general passage of time scores was analyzed by Kruskal-Wallis test. According to the results of the analysis, no significant difference was found between the groups in terms of appropriated time passage scores ( $p > .05$ ). But there was a significant difference in general passage of time scores ( $\chi^2(5) = 14.10$ ,  $p < .05$ ). Mann-Whitney U tests performed in post-hoc analyses showed that illiterate individuals perceived the general passage of time significantly slower than primary school, high school, associate degree and undergraduate graduates ( $p < .05$ ). In addition, secondary school and high school graduates perceived time more slowly than associate degree graduates ( $p < .05$ ). These findings suggest that educational levels may have an important role on the perception of the passage of time.

The effect of marital status (single, married, divorced) on appropriated and general passage of time scores was analyzed by Kruskal-Wallis test. The results of the analyses showed that there was no significant difference between the groups in terms of appropriated time passage rate scores ( $p > .05$ ). However, a significant difference was found in terms of the general passage of time scores ( $\chi^2(2) = 13.832$ ,  $p < .05$ ). Mann-Whitney U tests performed within the post-hoc analyses showed that married individuals perceived the general passage of time significantly faster than single and divorced individuals ( $p < .05$ ).

The effect of income status on passage scores was analyzed by Kruskal-Wallis test. The results of the analyses showed that there was no significant difference between the groups in terms of appropriated

time passage scores ( $p > .05$ ). But there was a significant difference in terms of general passage of time scores ( $\chi^2(4) = 10.926, p < .05$ ). Post-hoc analyses showed that individuals with incomes less than minimum wage perceived the general passage of time significantly slower than individuals with incomes of 30,000 TL-39,999 TL, 40,000 TL-49,999 TL and 50,000 TL and above ( $p < .05$ ).

The effect of age groups on passage scores was analyzed by Kruskal-Wallis test. There was no significant difference between the groups in terms of appropriated time passage scores ( $p > .05$ ). But there was a significant difference between the groups in terms of the general passage of time scores ( $\chi^2(2) = 24.899, p < .05$ ). According to post-hoc analyses, the 27-54 age group perceived the general passage of time significantly faster than the 55 and over age group ( $p < .05$ ).

**Table 4**

*Wald, Odds ratios and 95% confidence intervals for the general passage of time and the passage of appropriated time*

Predictors	Categories	General passage of time				Passage of appropriated time			
		Wald	Odds Ratio	%95 CI		Wald	Odds Ratio	%95 CI	
Age	≤ 26	0.441	1.385	-.636	1.287	.422	1.372	-.638	1.270
	27-54	9.370	3.002*	.395	1.803	1.676	1.581	-.236	1.152
	55+ (reference)								
Education Status	Illiterate	4.301	0.438*	-1.606	-0.045	8.022	0.324*	-1.906	-.347
	Primary School	0.321	0.827	-.847	.467	4.127	0.508*	-1.330	-.024
	Middle School	0.863	0.727	-.990	0.353	4.435	0.487*	-1.387	-.050
	High School	0.462	0.804	-.847	0.411	3.418	0.555	-1.214	.035
	Associate degree Undergraduate (reference)	2.727	2.239	-.151	1.763	2.464	0.480	-1.651	.182
Child Status	Have	3.266	1.717	-0.046	1.127	0.223	1.150	-0.439	.719
	None (reference)								
Number of Household Members	≤ 4	3.710	0.647*	-0.878	0.008	0.933	0.806	0.222	.222
	5	0.172	1.120	-0.424	0.651	0.171	0.894	0.417	.417
	6+ (reference)								
Time Appropriation		19.838	1.968**	0.379	0.975	9.161	1.570*	0.159	.743

\*  $p < .05$ .  $p < .001$

Separate ordinal logistic regression analyses were performed to determine the roles of demographic factors on the passage of time and appropriated time. Table 4 shows the odds ratios for each variable with 95% confidence intervals. The model for the general passage of time was statistically significant,  $\chi^2(13) = 67.075, p < .001$ , with pseudo-R-squared values (Nagelkerke, McFadden) of .16 and .05, respectively. The factors predicting the general passage rate of time are age, educational level, number of individuals in the household and time appropriation. Accordingly, the probability of perceiving that time passes faster increases significantly for individuals in the 27-54 age group and individuals with a high level of time appropriation. However, illiterate individuals and individuals with four or fewer household members tend to perceive the passage of time more slowly.

The model for the rate of passage of appropriated time is statistically significant,  $\chi^2(11) = 22.025, p < .05$ , with pseudo-R-squared values (Nagelkerke, McFadden) of .06 and .02, respectively. The passage of appropriated time was associated with educational level and time appropriation. Accordingly, as the

level of education increases, the probability of individuals perceiving that time passes faster increases. Especially illiterate individuals have the slowest time perception speed compared to the reference group of undergraduate graduates. Although primary and secondary school graduates have a faster perception of time compared to illiterates, these effects are still low compared to the reference group of higher education levels.

There is a significant positive correlation ( $r = .32$ ) between the passage of appropriated time and the general passage of time, indicating that both time judgements are related to each other. The Wilcoxon Signed Rank Test was performed to assess the difference between the perceptions of the passage of appropriated time and the general passage rate of time, and participants' perceptions of the passage of appropriated time and the general passage rate of time in their daily lives were found to be significantly different ( $z = -3.350, p < .05$ ). This finding suggests that participants' perceptions of time vary significantly according to the context and that the two-time passage judgements are perceived differently from each other. In addition, in the ordinal logistic regression models, in the model where the dependent variable was the general passage of time, the passage rate of appropriated time was added among the other predictors, and it was observed that the model did not fit well, and the parallel regression assumption was not met ( $p's < .001$ ). On the other hand, in the model where the dependent variable was the passage rate of appropriated time, it was found that the model fit well and the parallel regression assumption was supported ( $p's > .05$ ) with the addition of the general passage rate of time, and it was also observed that the pseudo-R-squared values (Nagelkerke, McFadden) increased from .06 and .02 to .13 and .05, respectively. These results suggest that the general passage of time can be used as a reference in the time passage judgement. This finding is detailed in the discussion section.

When the ordinal logistic regression models are evaluated as a totality, they show that demographic factors and the level of appropriated time passage are important factors on individuals' perceptions of the passage of time. Factors such as age, education level, number of individuals in the household and the level of time appropriation were found to play a decisive role in the general passage of time. In particular, individuals between the ages of 27-54 and those with a high level of time appropriation perceive the general passage of time faster. However, illiterate individuals and those with four or fewer members in the household perceive the passage of time to be slower. The role of education level is more evident in the perception of the passage of time; while illiterate individuals have the slowest perception of the passage of time, time perception accelerates as the level of education increases. These findings show that demographic characteristics of individuals, especially educational level and the level of time appropriation, significantly shape the passage of time.

### **Qualitative Results**

The judgement of passage of time is not only an individual's personal experience; but is also characterized by spatial, social and emotional contexts. Such contexts that shape the passage of time form a field of dynamic interaction between the physical environment in which the individual is embedded, the social relations in which he/she is involved and the emotions he/she experiences. Therefore, the participants were asked open-ended questions about their experiences of the passage of time to examine the quantitative findings in a contextual framework. This approach provides a more contextualized understanding of where, with whom and with what emotions the participants experienced the passage of time. In that way, the multidimensional structure of the experiences and how the perception of the passage of time is intertwined with individual, interpersonal and spatial factors could be identified. The following are the participants' responses regarding the situations in which time passes slowly, normally and quickly in their appropriated time periods.

### ***Situations in which appropriated time passes slowly***

Analyzing the perceptions of homemakers about the passage of time in their appropriated time periods, it is found that homemakers are cognitively intensively involved in these processes. The fact that cognitive resources are largely directed to these time periods affects individuals' perception of time and forms a perception that time passes more slowly. Although these time periods spatially involve time spent inside or outside the home (e.g., nature, outdoors, public spaces), socially they include time spent alone, with family members or with friends. Increased social interaction leads to the emergence of extraverted emotions (e.g., joy, enthusiasm, happiness), whereas when the individual spends time alone, introverted emotions (e.g., peace, calmness, serenity) become predominant. This situation shows how individuals' cognitive and emotional processes are shaped by the social context. In the following, participant statements are categorized into themes by space and social context:

#### ***Theme 1: Indoor and alone***

It is generally observed that introverted feelings such as peace and serenity come to the fore in the time periods that the participants spend alone in the home environment. The following quotes and other similar statements are included in this theme:

'I reserved time for myself between 23.00-01.00 at night, made coffee, put my feet up and watched TV. I felt very happy, time was slow.'

'I read the Qur'an during these times, I am usually at home, alone, I am peaceful.'

'Cooking is a time I allocate for myself. Today I did it again and the time passed very slowly.'

#### ***Theme 2: Out of Home-Alone***

In individual activities outside the home, participants generally experienced neutral or calm emotions and stated that their perception of time slowed down. Sample participant statements included in this theme are as follows:

'I sit under the mulberry tree every morning. This is a time I allocate for myself. Yesterday I sat again, and time passed very slowly. I was alone, my feelings were neutral, I was calm.'

'During this period of time, I listened to the sound of the lake on the beach, I was alone, I felt happy and peaceful.'

#### ***Theme 3: Out of Home-Increased Sociability***

Participants expressed more extroverted and spontaneous emotions in time periods when social interaction increased. Examples of participant statements are provided as follows:

'When I sat with the neighbors, when I was outside, time was slow... I was happy.'

'I feel peaceful and free when I spend quality time with people I love.'

'The time I spend with my children passes slowly. I especially want it to pass slowly when I drink coffee, chat and listen to them.'

These findings indicate that individuals' perceptions of time differ depending on the level of being alone and sociability. While the participants focus on factors such as inward harmony, meaning and tranquility in the time periods they spend alone, they display behaviors that are more spontaneous and independent of external pressures in situations where the social context is strengthened. This shows that individuals' perception of time is shaped by both spatial and social context.

### **Situations in which appropriated time passes quickly**

Analyzing the situations in which homemakers perceive the passage of time as fast in their appropriated time periods, it is seen that the experiences of the passage of time are intensified under certain conditions. In this study, the participant statements were analyzed thematically and two main situations that lead to the acceleration of time perception were identified:

#### ***Theme 1: Social Interaction and Spatial Change***

The first theme covers the situations in which social interactions and time spent outside the home accelerate the perception of time in appropriated time periods. In this context, the perception that time passes quickly becomes evident when individuals move away from their responsibilities and participate in activities they enjoy. The participants stated that they experienced that time passes fastest in situations where social interactions are intense, and they experience spatial changes. Activities such as holidays spent with family members, shopping with friends and participating in leisure courses are situations where the subjective perception that time passes quickly is strengthened. In this context, the participants emphasize that time passes unnoticed when they are in a social environment and away from their routine responsibilities:

‘When we went to Edremit for a picnic, I never wanted it to end with my family, but it was very fast.’

‘We had made a holiday plan as a family, we set off. The journey went by very fast. My wife and children, I was happy, we were having fun together.’

‘Around this time, I went out shopping with my friend, I felt that time was passing fast. I was happy and felt that time was passing fast.’

‘Whenever I go out, whenever I have time for myself, it goes very fast. I go to a wood course every day and when I spend time with my friends, it passes very fast, but I am very happy. I went again today, it passed very fast.’

These statements indicate that individuals feel that time passes quickly when their social ties are strengthened, and they have positive emotional experiences. During social interactions, individuals’ cognitive resources are directed towards the activities of the moment, thus reducing awareness of the passage of time.

#### ***Theme 2: Individual Activities and Cognitive Relaxation***

Some participants stated that they experienced the passage of time during individual activities. However, such experiences are expressed less frequently than perceptual acceleration in social contexts. During these periods of time spent alone, it is observed that individuals cognitively concentrate on an activity or completely relax. During activities such as reading a book, watching a movie or watching television, it is stated that time flies by effortlessly:

‘Time passes very fast when I withdraw to my room to relax or maybe to get some rest’.

‘Time passes fast when I am alone. When I am reading a book, watching a movie or shopping.’

‘During the week, my children return late from school. I sit and watch TV and the time is mine. On Friday I sat and watched TV. Time passed very quickly, I was lonely and felt on the edge.’

### **Situations where appropriated time passes at the usual (normal) pace**

Examining the situations in which homemakers perceived the passage of time as usual during the time periods in which they were themselves, it is found that during these time periods, the participants were cognitively engaged in the process at a moderate level. This situation points to a balance point where

cognitive load and stimulus complexity are neither too high nor too low, and thus an optimal cognitive engagement is ensured. Thus, individuals' perception of time and the state flow of the situation they are in become more synchronized. Moreover, although the experiences expressed in these time frames have similar characteristics with the perception that time passes both fast and slow, they are shaped within a time pattern based on daily routines and habits. Two main themes were identified in this passage of time.

### ***Theme 1: Time Experienced in the Social Context***

Social contexts in which the passage of time is balanced include interactions in which the individual is both emotionally satisfied and cognitively unchallenged. Social interaction does not accelerate or slow down time noticeably by directing the individual's attention to the immediate moment. Also, structured social activities (e.g., regular courses) increase the predictability of time, balancing the cognitive load and keeping the perception of time at its usual speed. In this context, the social time offers a space of balance in which the individual participates fully but does not experience cognitive overload in the context of the flow theory. Participant statements related to this theme are presented below:

'At these times, I am together with my loved ones, time passes normally.'

'I am with my child, and the time is usually normal.'

'I have an embroidery course. I go every weekday, I went today, it was normal. My friends were with me, I felt comfortable.'

### ***Theme 2: Daily Routines and Personal Activities at Home***

Daily routines are processes in which the perception of time is experienced without significant acceleration or deceleration. Repetitive activities such as housework do not require much cognitive effort, nor are they completely automatic. This situation indicates an optimal balance in terms of cognitive load. In other words, the individual is moderately cognitively involved in the activity but does not consume cognitive resources to directly question the flow of time. Therefore, the participants stated that time passes at the usual passage of time in their daily routines. In addition, another context in which individuals' perception of time remains at the usual passage is activities based on spiritual and personal rituals. In particular, regularly repetitive rituals such as prayers neither accelerate nor slow down time by enabling the individual to reach a state of inward equilibrium. When one's attention and awareness is directed towards the inner experience, not the flow of time, there is a perception that time moves at the usual speed. The following statements and statements in this direction are included in this theme:

'During these times, I do my daily work, and time passes at a normal passage of time.'

'This may be the case when we do routine work at home, time is normal.'

'Household work is my own time and for the work I did this morning, the time was moving at a normal speed.'

'When I pray, it passes normally.'

The experience of time perception at the usual passage of time appears to be directly related to the cognitive complexity and cognitive anticipation of the situation in which the individual finds himself/herself. Social contexts, daily routines and personal rituals allow the individual to experience time perception in a regular rhythm without excessive acceleration or deceleration.

### **Integration of Quantitative and Qualitative Results**

Quantitative findings show that the perception of the passage of time is characterized by demographic and cognitive factors. In particular, variables such as age, education level, and the number of individuals

in the household appear to play a determining role in how time is experienced. However, qualitative analyses reveal that this process is not restricted to individual and cognitive factors but is also shaped by spatial and social contexts. For example, although quantitative analyses indicate that individuals with a high level of time appropriation perceive that time passes faster, qualitative findings suggest that the phenomenological texture of these experiences varies significantly depending on context. The statements of participants show that the emotions and social interaction levels they experience during moments of appropriated time can affect the perception of the passage of time in different directions. The experiences that emphasize peace and serenity come to the forefront in time periods spent alone, while time is perceived to pass faster in situations where social interaction increases.

These findings point to a divergence between structural predictors and subjective experience, which can be more clearly understood when both data sources are brought into systematic dialogue. For instance, while the quantitative models suggest a linear relationship between time appropriation and the acceleration of time perception, qualitative data unpack this relationship by revealing how the emotional and relational dimensions of appropriated time moderate this acceleration. Such synthesis highlights that time appropriation is not merely a cognitive variable, but a situated, embodied experience shaped by affect and context. These integrated results indicate that the demographic and cognitive tendencies observed in the quantitative data should be addressed in a more dynamic and contextual framework when evaluated alongside the qualitative narratives.

Similarly, the qualitative findings on how time perception is experienced by individuals provide an explanatory perspective on the overall trends indicated by the quantitative analyses. The quantitative findings show that time is perceived to pass faster as the level of education increases, emphasizing the role of cognitive processing in shaping time experience. However, qualitative data suggest that this process cannot be considered independent of the social and spatial context in which the individual lives. For example, the fact that individuals with higher levels of education report a faster passage of time may reflect not only their engagement in intensive cognitive activities but also their complex daily routines and broader social interactions.

This interpretation points to a potential mechanism behind the quantitative pattern: higher education may afford individuals access to more stimulating environments, denser time structures, and faster-paced social rhythms, which in turn intensify their temporal experience. Thus, the quantitative trend is not just a function of education per se, but of the lifestyles and social ecologies that often accompany it.

In addition, the quantitative finding that illiterate individuals perceive that time passes more slowly, when analyzed in the light of qualitative data, may be related to the fact that these individuals spend time with less structured and more relaxed daily activities. Qualitative insights provide contextual clarity by showing how the lack of external temporal markers, social comparison, and cognitively demanding tasks might contribute to a deceleration of temporal experience.

Therefore, considering time passage judgments not only through individual-level variables but also in relation to social, spatial, and emotional contexts allows for a more holistic and ecologically valid understanding of temporal experience. This layered integration of quantitative structure and qualitative depth reflects the strengths of the mixed-methods design and responds directly to the call for a multidimensional analysis of time perception.

## **Discussion**

This study examined homemakers' changes in the general passage of time and the passage rate of time in their appropriated time periods using a nested mixed design. Participants generally perceived the

general passage of time as fast or very fast, whereas their perceptions of the passage of time in their own time periods were relatively slower. These results show that there are distortions regarding the passage of time, in other words, different judgements (e.g., slow, fast). Thus, many studies in which the passage of time is analyzed in different contexts also show that individuals' distortion tendencies regarding the passage of time are common (Alatrany et al., 2022; Ogden, 2021). Furthermore, the results showed that demographic factors (e.g., age, level of education) and the level of time appropriation have an important role in individuals' perceptions of the passage of time. Moreover, the results show that time passage judgements are characterized by the interrelationships of demographic, psychological, social, spatial and temporal factors. These interactions in the experience of the passage of time facilitate the understanding of this experience by contextualizing it (Altman & Rogoff, 1987; Werner et al., 1985). Thus, the model of the passage of time described in the introduction also addresses this interaction within the framework of the dynamics between the self and the situation, demonstrating that the experience of time is not only a psychological phenomenon (Flaherty, 1999; 2018).

The fact that the participants perceived the general passage of time faster compared to their appropriated time periods may be regarded as a reflection of the intensive pace of everyday life. This may explain the individuals' feeling that time passes quickly in their daily lives shaped by time pressure and external stimuli and requirements (Winkler et al., 2017). However, the relatively slower perception of appropriated time periods may be associated with the fact that individuals encounter fewer external stimuli in these time periods and generally feel more internal awareness and control. As a matter of fact, appropriated time periods are times when internal orientation tends to increase (Karasu et al., 2025).

The quantitative results of the study show that variables such as age, educational level, work experience, marital status, family structure and income level are among the factors that affect how individuals perceive the passage of time. For example, in the context of the general passage of time and the passage of appropriated time, being between the ages of 27-54 and having a higher level of education may have increased the likelihood of individuals encountering habitual social interactions more frequently, leading individuals to experience their daily lives within certain routines. In this context, the limited involvement of conscious attention in the process enhances the perception that time passes faster (Flaherty, 2018). In addition, the combination of both variables may lead to a higher level of expectation of service production from individuals in this group, both by themselves and by their environment. These intense expectations and responsibilities may lead individuals to be in a daily tempo where they do not realize how time passes, further enhancing the perception that time passes quickly.

In addition to age and educational level, other demographic variables such as marital status, work experience, and family structure also showed meaningful patterns regarding time perception, even when not statistically significant across all comparisons. For example, individuals with work experience and those from nuclear families tended to perceive time as passing more quickly, possibly due to more structured and task-oriented daily routines. Married individuals and those with children also reported faster time perception, which may reflect the impact of caregiving responsibilities and increased social engagement. Although not all group differences reached statistical significance, these trends highlight the potential influence of relational and structural life contexts on temporal experience, warranting further exploration in future research.

The results of ordinal logistic regression models reveal that demographic factors and the level of time self-consciousness have a significant role on individuals' perceptions of the passage of time. In particular, age, educational level, the number of individuals in the household and the level of time appropriation were found to be among the main predictors of time perception. Individuals between the ages of 27-54 and participants with a high level of time appropriation perceived that time passes faster, while illiterate individuals and participants living in smaller households felt that time passes more

slowly. These results show that time perception is not only a process based on biological age, but also a phenomenon shaped by individual experiences and environmental factors. In particular, the relatively slower time perception of illiterate individuals may be associated with both the lack of time management strategies that can be acquired through education and expectations as the level of education increases.

As indicated in the findings part, the participants may have judged the passage of appropriated time by comparing it with the general passage of time. This finding was also found in a previous exploratory study on appropriated time periods. In this study, the participants were observed to express the passage of appropriated time periods in comparison to non-appropriated time periods, in other words, in comparison to the flow of everyday time. For example, in the study in question, it was found that if the participants perceived the general passage of time as very fast, the appropriated time periods were also perceived as fast or at a usual speed (Karasu, 2021). The tempo, intensity and stimulus-filled structure of daily life may have functioned as a 'default passage of time' for the participants. The participants may have consciously or spontaneously taken the general passage of time as a reference point. This finding shows that individuals' perceptions of time are evaluated in a contextual and comparative process, in other words, according to past experience. In particular, it can be said that retrospective evaluations of the past may affect the current perception of time and lead to the feeling that time passes faster (Flaherty & Meer, 1994).

Several mechanisms may have been activated in this process. One of them seems to be related to the effort to keep up with the pace of daily life, in other words, time pressure. This may lead individuals to reinforce the feeling that time is passing fast, and this may turn daily time into a standard of comparison that is perceived as 'faster'. The fact that time pressure is related to the perception that time passes quickly is supported by various studies. In one study, more time pressure with increasing life routines was found to reinforce the perception that the present time passes faster (Winkler et al., 2017). In a different study, it found that participants who perceived high levels of time pressure and thought that their current time was not enough to fulfil their tasks perceived time as passing faster than others (Friedman & Janssen, 2010). Time pressure increases the level of arousal and diverts attention away from temporal processes and makes it task-oriented, which strengthens the perception that time passes faster (Winkler et al., 2017).

Another mechanism seems to be related to the evaluation of appropriated time. Appropriated time is based more on a retrospective evaluation and has an internal context (Karasu et al. 2025). Such an evaluation may have triggered a perception of relative slowness compared to the pace of external everyday life. Given the tendency of individuals to go through a more detailed and emotional process when recalling past experiences about themselves (Berntsen & Rubin, 2012), it seems likely that the perception that past appropriated time periods were experienced more slowly and intensely was triggered. In addition, appropriated time periods may evoke a greater sense of awareness and calmness compared to everyday time (Karasu & Cesur, 2023). In contrast to the busy pace of everyday time, appropriated time is usually a context in which the individual is left alone with fewer external stimuli.

A final mechanism may be related to resorting to certain cognitive biases (e.g., availability bias) regarding the passage of time. Thus, these biases are known to lead to systematic errors in judgement. For example, such biases may serve to make comparisons or establish relationships that do not exist (Tversky & Kahneman, 1973). The participants had more experience with the passage of everyday time, which suggests that they may tend to use this time as a reference. The more frequent and intense flow of daily life may have led to a dominant reference point. These findings emphasize the importance of context and reference points in people's perceptions of the passage of time. In order to increase the validity of the research findings, it is clear that approaches that control for the possible effects of such comparisons should be improved.

While the ordinal logistic regression models reached statistical significance and identified meaningful predictors of time perception, it is important to acknowledge their relatively low pseudo-R-squared values, which indicate a modest level of explanatory power. This suggests that, although variables such as age, education level, household size, and time appropriation significantly contribute to explaining variations in the perception of time, a considerable proportion of variance remains unaccounted for. This limitation is related to the complex nature of human experience. Particularly subjective experiences such as time perception are shaped by many interacting factors. The inherently multidimensional nature of human experience, shaped by cognitive, emotional, social, and contextual dynamics, makes it challenging to capture the full range of explanatory variables through conventional modeling techniques (Altman and Rogoff, 1987; Karasu, 2025).

The qualitative results of the study show that the passage of time varies in interaction with the physical environment, social relationships and emotional states of the individual. Temporal experience studies based on environmental psychology are capable of showing such interactions more clearly (Werner et al. 1985, 2002). In this study, the fact that individuals stated that time passes slowly when they spend time alone can be explained by the fact that cognitive resources are directed to more inward processes in these processes (Karasu & Cesur, 2023; Karasu et al., 2025). Individuals generally experience introverted feelings such as peace, calmness and serenity when they are alone, which may lead to a perception that time is more extended. In contrast, it has been observed that time speeds up when social interactions are intensified. When spending time with family members or friends, participants directed their cognitive resources towards the current social context rather than time itself, leading to a stronger subjective perception of time passing faster. These findings suggest that time perception is shaped by both the individual's subjective cognitive load and the dynamics of the social context.

Moreover, experiences of time passing quickly are not only limited to social interactions but also occur during individual endeavors and moments of cognitive relaxation. When individuals are immersed in activities that require a high level of attention and interest but do not create excessive cognitive load (e.g., reading a book, watching television), time seems to be out of awareness. However, it should be kept in mind that the perceived passage of time cannot be reduced to individual or social contexts alone, and that these contexts interact with the individual's emotional and cognitive state at that moment. For example, in an environment with a strong social context, time is perceived to pass quickly, whereas in some cases, social interactions may not proceed in accordance with expectations, or the current emotional state of the individual may lead to an experience in which time passes more slowly. These findings show that the perception of time is not a static process that can only be categorized into certain categories; on the contrary, it is a multidimensional phenomenon shaped by the ever-changing components of individual, social and spatial contexts.

### **Limitations**

The study has several limitations. Firstly, the use of snowball and convenience sampling techniques, while practical and often necessary in reaching specific or hard-to-access populations such as full-time homemakers, inherently increases the risk of sampling bias. These techniques may result in a sample that overrepresents certain social networks or community characteristics, potentially limiting the diversity and heterogeneity required for full representativeness. Moreover, individuals who are more socially connected or more motivated to participate in research may have been more likely to be included in the sample, further contributing to potential bias. In particular, it should be considered that the sample may have different characteristics from the general population in terms of education level and income distribution. Future studies would benefit from employing more probabilistic or stratified sampling strategies to enhance generalizability and to validate the findings across broader and more varied subgroups of the population.

In addition, the fact that the instruments for data collection are largely based on self-report scales carries the risk of being open to cognitive distortions such as social desirability bias and response bias. The objectivity of participants' responses to questions about their experiences of time may be limited as they may be influenced by personal perception and memory processes. In addition, the lack of standardized and widely accepted instruments for the direct measurement of concepts such as the perceived passage of time and appropriated time periods poses potential limitations in terms of measurement reliability. Although confirmatory factor analyses were conducted for the TAS, one of the scales used in the study, it should be noted that this scale needs more extensive validity and reliability studies in different demographic and cultural groups. Finally, the study has a cross-sectional design, which creates limitations in terms of the cause-and-effect relationships of time perception and appropriated time periods. It is considered that future research supported by longitudinal designs and qualitative methods may provide a more in-depth and comprehensive perspective on time experiences.

### **Conclusion**

The results of the study show that individuals' perception of the passage of time is shaped by contextual, demographic and psychological factors. The fact that homemakers perceive the general passage of time as fast, whereas this perception is relatively slow in their appropriated time periods suggests that the way time is experienced varies according to the context in which the individual lives. In particular, demographic factors such as age, level of education and the level of time appropriation are among the critical factors shaping the perception of time. Time pressure, combined with the individual's daily tempo of life and exposure to external stimuli, reinforces the perception that time passes faster; however, it is observed that time is perceived slower in appropriated time periods where the individual's inner awareness increases. This shows that individuals' perception of time is shaped not only by biological processes but also by social and cognitive mechanisms. It is understood that the feeling that time passes quickly may be related to the effort to keep up with the pace of daily life, and that a more retrospective and internal evaluation is made in appropriated time periods. In conclusion, this study shows that the perception of time is shaped at the intersection of individual differences and social context and that the perception of the passage of time has a multifaceted structure, emphasizing the need for more comprehensive studies examining the interaction of these variables in future research.

### **Compliance with Ethical Standards**

#### **Ethical Approval**

The study was approved by the Van Yüzüncü Yıl University Social and Human Sciences Publication Ethics Committee (No. 08.07.2024-2024/14.06)

#### **Author Contributions**

The sole author of this study was responsible for the conceptualization, research design, data collection, analysis, and manuscript preparation.

#### **Declaration of Conflicting Interests**

I declare that there are no conflicts of interest related to this research, authorship, or publication of this article.

## Competing Interests

I confirm that there are no competing interests that could have influenced the study's design, data collection, analysis, or interpretation.

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## Notes

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<sup>i</sup> The term *homemaker* is used throughout this paper to refer to women who primarily manage household responsibilities and do not engage in paid employment outside the home. While the study sample consists exclusively of women, homemaker was preferred over housewife due to its more neutral and respectful connotations in contemporary academic discourse.