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Factors Affecting the Reading Motivations of Inmates: A Scale-Based Study

Makûmların Okuma Motivasyonlarını Etkileyen Faktörler: Ölçek Tabanlı Bir Çalışma

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Abstract

Reading serves as a crucial skill for incarcerated individuals and ex-convicts to enhance personal growth, exhibit good behavior, and reintegrate into society. This study aims to gather data on the validity and reliability of the Prisoners' Reading Motivation Scale (PRMS) as an effective tool for assessing the factors that impact the reading motivation of inmates and convicts. In this context, a preliminary scale comprising 20 items was formulated by consulting with academics, and psychologists, and utilizing information from literature reviews. A total of 224 participants, with 70 in the pilot phase and 154 in the

Öz

Okuma, hükümlü ve tutuklular için kişisel gelişimi artırmak, iyi davranışlar sergilemek ve topluma yeniden entegre olmak için önemli bir beceridir. Bu çalışma, hükümlü ve tutukluların okuma motivasyonunu etkileyen faktörleri değerlendirmek için Mahkûmların Okuma Motivasyonu Ölçeği'nin (MOMÖ) geçerliliği ve güvenirliği hakkında veri toplamayı amaçlamaktadır. Bu bağlamda, akademisyenler ve psikologlara danışılarak ve literatür taramasıyla elde edilen bilgiler kullanılarak 20 maddeden oluşan bir ön ölçek geliştirilmiştir. Araştırmaya toplamda 224 katılımcı, 70'I pilot aşamada 154'ü ana ölçek

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primary scale application, took part in the research. The initial phase of scale development involved Confirmatory Factor Analysis (CFA), which identified the scale's composition of 14 items across 4 factors. Subsequently, through an expanded sample size, a second CFA was conducted to determine reliability coefficients. The second CFA indicated the scale's ability to measure variances effectively, with acceptable Cronbach's Alpha coefficients. The two-stage investigation concluded that the PRMS is well-suited for identifying the factors influencing inmates' reading motivations and can serve as a dependable measurement tool.

Keywords: *Reading, motivation, scale, inmate, prison*

uygulamasında olmak üzere katılmıştır. Ölçeği geliştirme sürecinin ilk aşamasında, ölçeğin 14 maddeden ve 4 faktörden oluştuğunu belirleyen Doğrulayıcı Faktör Analizi (DFA) yapılmıştır. Daha sonar, örneklem büyütülerek güvenirlik katsayılarını belirlemek için ikinci bir DFA gerçekleştirilmiştir. İkinci DFA, ölçeğin etkili bir şekilde varyansları ölçebildiğini ve Kabul edilebilir Cronbach's Alpha katsayılarına sahip olduğunu göstermiştir. İki aşamalı araştırma, MOMÖ'nün hükümlülerin okuma motivasyonunu etkileyen faktörleri belirlemede uygun olduğunu ve güvenilir bir ölçme aracı olarak kullanılabileceğini ortaya koymuştur.

Anahtar Kelimeler: *Okuma, motivasyon ölçek, hükümlü, cezaevi*

Introduction

Reading is a fundamental and necessary skill for social integration (Kelley & O'Decker, 2009). Reading motivation is an important factor that contributes to an individual's reading achievement, knowledge acquisition, personal development, and self-control. Numerous studies have shown that reading requires effort and motivation (Guthrie et al., 2007; Huang, Orellan & Capps, 2016; Stipek, 2002). Since the early 1900s, reading motivation has become a significant research topic, and the number of studies has increased (Gambrell et al., 1996; Guthrie & Klauda, 2014). Despite being an important research topic, reading motivation has not received sufficient attention as a factor that could contribute to the reintegration of inmates into society, especially in correctional facilities (Lin, Wong & McBride-Chang, 2012; More, 2002). Therefore, the factors influencing inmates' reading motivation continue to exist as an unexplored research area.

In a study conducted by Köçeri (2023) with 180 inmates, it was found that approximately 70% of the participants lacked even a basic level of literacy skills. Many inmates lack sufficient motivation for reading and writing, and the prison teachers who constitute the universe of the study agree with this claim (Köçeri, 2023, p. 5). Some research has been done to examine the effects of different structures on reading motivation (Cox, Friesner & Khayum, 2003; Simpson & Rush, 2003). These structures include self-efficacy, interest and relevance, social influences, goal orientation, and reading environment. The main reason for this is the confined nature of correctional facilities and the perception of reading motivation as a multidimensional construct (Wang & Guthrie, 2004; Wentzel, 1997; Wingfield, 1997).

Wigfield and Guthrie (1997) included factors such as the importance of reading, curiosity, text difficulty, knowledge, competition, and compliance in their developed reading motivation scale. Despite numerous scales being developed to identify factors that encourage inmates to read, initial studies aim to measure academic achievement (Kim, 2011). In the current study, a specific scale was designed to determine which factor plays a role according to assumed structures affecting inmates' reading motivation. The structures of reading as knowledge acquisition, being well-behaved, personal development, and reading as an activity, believed to be effective in inmates' reading motivation, were examined, aiming to outline a theoretical framework for the crucial component of reading motivation in inmates' reintegration into society.

In conclusion, limited research conducted with inmates has shown that reading is influenced by various motivation-based factors (Schutte & Malouff, 2004, pp. 469-489). A study involving, 1,265 participants found evidence that inmates allocate less time to reading (Huang et al., 2014). In light of the research findings, it has become apparent that further experimental research is needed to elucidate the factors related to inmates' reading motivation and participation in reading activities. In the current study, the aim was to investigate the factors influencing the reading motivation of inmates at a Closed Prison Facility in Turkey. To achieve this goal, researchers have developed a reading motivation scale by seeking answers to the following questions:

1. What is the impact of the information acquisition process on the reading motivations of inmates?
2. What role does exhibiting good behavior play in the reading motivations of inmates?

3. How does personal development shape the reading motivations of inmates?
4. What is the effect of reading activities on the reading motivations of inmates?
5. How can the motivation levels of inmates regarding information acquisition, exhibiting good behavior, personal development, and reading activities be predicted?

Reading Motivation and Acquiring Knowledge

People acquire and process various types of information through their senses. Hearing and seeing are the organism's tools for acquiring information. Information used at every stage of life is significant. Individuals utilize their information to establish new connections and create meaning. Therefore, to maintain mental balance, new and old information must be integrated (Carmel et al., 2019; Scott, 1963, pp. 66-74). As individuals enhance their cognitive functions, their ability to solve more complex problems increases (Klinger, 2004; Royanto, 2012). One of the most effective ways to develop this skill is through reading. Reading prompts individuals to make sense of their prior knowledge through their own experiences (Karim et al., 2010; Zhao et al., 2023).

Research on reading motivation has identified acquiring knowledge as a significant component of reading motivation (Biederman & Vessel, 2006; Murayama et al., 2019). Individuals must identify their knowledge gaps for reading motivation to emerge. Strengthening reading motivation for acquiring knowledge creates a feedback loop for reading that fills knowledge gaps throughout the process (Murayama et al., 2019). According to this explanation, acquiring knowledge behavior is used interchangeably with interest. Hidi and Reninger (2016) define acquiring knowledge behavior as part of the learning process. Individual interest initiates a relatively persistent tendency over time to sustain repeated reading interactions with specific content since it involves a psychological state of interest.

Acquiring knowledge can be a key factor in reading motivation. As defined by Dochy et al. (2002), prior knowledge is the total knowledge an individual possesses. Prior knowledge is inherently open, implicit, structured, transferable across multiple situations, and usable by the reader before reading processes (Dochy & Alexander, 1995; Dochy et al., 2002). Prior knowledge paves the way for individuals to acquire new information during reading processes and has a positive impact on self-efficacy (Ineson et al., 2013). In other words, the scope of prior knowledge individuals possess provides a cognitive advantage for the learning process. As a result, reading motivation is associated with acquiring knowledge (Walberg & Tsai, 1983). Acquiring knowledge constitutes a significant dimension of theories that influence reading motivation.

Reading Motivation and Being Well-Behaved

When an individual commits a crime against society, they are physically isolated from the community (O'hear, 2014, p. 192). However, when they have completely abandoned their wrong and bad behaviors, they may deserve to return to society. Therefore, even in situations where the harm seems irreparable, the efforts of the prisoner to be accepted by society should be supported. With this moral logic, many states have removed the death penalty from their laws for prisoners who do not have the possibility of parole (O'hear, 2012, p. 188).

In today's world, execution regimes have changed, and the concept of rehabilitation has become the focal point of execution regimes. Practices within legitimate boundaries have been implemented to rehabilitate individuals whose freedoms are restricted. In the 1990s, many states defined and encouraged good behavior mechanisms for prisoners to ensure their rehabilitation through parole mechanisms (Sabol et al., 2002, pp. 133-141). The aim sought to be achieved through punishment is to increase citizens' tendencies to comply with the law, as well as to ensure the integration of those who violate the law with society after the execution of their sentences (Dönmezler, 1994, p. 5). The fundamental goal of contemporary execution regimes has become the rapid adaptation of completed prisoners to social life, their continuation of life by staying away from crime within the consciousness of social responsibility, and their ability to establish healthy relationships in civilian life (Rusche & Kirchheimer, 1939, pp. 265-284).

Reading is important for prisoners to be aware of what is happening in the outside world, to intellectually develop, and to adapt to society after release. Prisoners' ability to follow cultural developments in the outside world, establish connections, and access materials such as magazines, books, and newspapers have significant effects on their personal development and social behavior. Therefore, reading is considered a virtuous act for prisoners. In evaluations, the habit of reading is considered a criterion for prisoners' good behavior (Özdemir, 2021, pp. 379-410). In this context, all prisoners are encouraged to benefit from libraries and reading habits to the maximum extent possible. These efforts are conducted and scored by the education and training service within the framework of relevant legislation and cooperation protocols (Tekin, 2023, pp. 1200-1223).). In Turkish prisons, each book read is evaluated as 1 point, and it is required that the total does not exceed 20 points within a 6-month period. A prisoner who accumulates fewer than 45 points is not considered to exhibit good behavior. Reading every book is scored as 1 point, not exceeding 20 points in 6 months. A prisoner who scores below 45 points is not considered to have good behavior. This situation can serve as a source of reading motivation for the prisoner to achieve a sufficient score.

Reading Motivation and Personal Development

Reading is the process of deriving meaning from written text (Alvermann & Montero, 2003). It is a complex process consisting of many components. According to modern theories of reading motivation, reading is not only a means of discovering knowledge for individuals but also a force that drives them to transcend their limits. In the reading process, the organism is not passive. It actively participates in mental processes such as cultural creativity and aesthetic experience (Deng & Sun, 2019, pp. 1-7). In this sense, reading should be a fundamental skill for individual development, especially for prisoners. Enhancing reading ability is of great importance for personal development.

Research on reading has found that reading is closely associated with factors such as imagination, memory, intelligence, and emotion that affect personal development (Deng & Sun, 2019, pp. 54-67). The educational processes in Turkish penal institutions have been organized to increase prisoners' reading motivation and contribute to their personal development (Karafazlı & Cem, 2020, pp. 42-53). In this regard, the concept of personal development has been consistently

emphasized and strengthened in the educational system involving penal institutions. Thus, the importance of reading in the individual development of prisoners has been confirmed.

The decline in reading motivation is one of the greatest threats to personal development (Akbaralievna, 2021, pp. 138-141). Therefore, many developed countries have taken various measures in penal institutions to prevent this negative situation (Rasinski & Lenhart, 2008, p. 18). Prisoners should comprehend and interpret the texts they read to enhance their personal development, which is a specific purpose of reading. Their noble feelings should be influenced by reading processes, their personalities should develop, and their spiritual worlds should be enriched. For this purpose, the correct selection of reading time and the volume of works based on the psychological and physical abilities of prisoners of different ages will assist in their personal development. Additionally, increasing the variety of books in prison libraries, selecting books that will promote personal development, ensuring sufficient understanding of content, and answering emerging questions will contribute to personal growth.

Reading Motivation and Reading Activity

Reading activity, defined in terms of the quantity and scope of reading, is important for the development of reading motivation (Guthrie, Schafer & Huang, 2001; Wigfield & Guthrie, 1997). Research on reading activity has found positive effects on readers (Au, 2001, pp. 225-248; Mollayeva, El-Khechen-Richandi & Colantonia, 2018). Studies conducted by Becker, McElvany, and Kortenbruck (2010) have found evidence that reading activity is not only a predictor of reading achievement but also associated with reading motivation.

The purpose of reading activities in correctional institutions is to support inmates in reading written materials throughout the year, rather than just at specific intervals. The concept of reading activities for inmates should be expanded, encouraging them to consider themselves as readers (MacKenzie, 2006). Ideally, library and educational unit staff in correctional facilities should bring together inmates who read a lot and those who read less, encouraging reading activities to promote reading. In addition, involving other staff members of the correctional institution in reading activities can help integrate reading motivation into daily life.

Reading activities help inmates maintain their social relationships and support their reading motivation (Roberts, 1973, pp. 265-267). It is a good idea to associate reading with practical activities. For some inmates, the opportunity to improve their reading skills is one of the positive aspects of being in prison (MacKenzie, 2006), as they need to find a way to sustain their motivation for reading even after their release from correctional facilities (Crewe, 2013, ss. 20-20).

Method

In this section, the focus is on the sample participants, data collection tools, and the methods and techniques used in the analysis of the data.

Model of the Research

In the current research, the rational survey model, which is one of the quantitative research methods, was employed. The relational survey model encompasses processes of describing a situation as it existed in the past or exists in the present and is used to facilitate the development of target behaviors (Bahtiyar & Bilge, 2017, pp. 47-58). In the relational survey method, scanning is performed on one or more samples to reach a general judgment about the population. The relational survey method aims to identify the existence of variants and investigate the relationship between them (Karasar, 2011).

The target participants of the study were determined from a Closed Penitentiary Institution in Turkey, and the sample consisted of a total of 224 inmates. Monographic and theoretical sampling methods were utilized in selecting the sample. In this type of sampling, the target participants selected are determined according to the purpose of the research (Poggie, 1972). In the two-stage research, 70 inmates participated in the first stage and 154 inmates in the second stage took part. The descriptive data of the inmates participating in the study group are presented in Table 1.

Table 1. Numerical Data Regarding the Sample Group

Variants Regarding the Study Group		**Pilot Scale (70 Prisoners)**			
		f	%	*f*	%
Reading Time	Daily	28	40	81	36,2
	Weekly	25	35,7	81	36,2
	Monthly	8	11,4	31	13,8
	Yearly	9	12,9	31	13,8
Age	18-25	16	22,9	36	16,1
	25-35	24	34,3	84	37,5
	35-45	13	18,8	51	22,8
	45-65	17	24,3	53	23,7
Conviction	Detainee	29	41,4	98	43,8
	Convict	41	58,6	126	56,3
Educational Level	Primary	18	25,7	61	27,2
	Middle	19	27,1	71	31,7
	High	28	40,0	77	34,4
	College	3	4,3	13	5,8
	Total	70	100	224	100

Scale Development Process

In the current research, DeVellis's (2021) scale development process was followed. According to DeVellis (2021), the scale development process consists of seven stages: determining the structure to be measured, creating the item pool, deciding on the measurement format, seeking expert opinion for the item pool, ensuring item validity, applying the items to the scale development sample, evaluating the items, and deciding on the final version of the scale. Following these stages, first, it was determined which factors of reading motivation could be effective on the reading motivation of prisoners. The scale was then administered, and prisoners were asked to indicate which factors were effective on their reading motivation. Based on the opinions expressed by the prisoners, a scale item pool was created utilizing Vroom's Expectancy Theory, Locke and Latham's Goal Setting Theory, and Bandura's Self-Efficacy Theory. The integration of these theories allows for the development of a more effective strategy to enhance inmates' reading motivation by taking into account multidimensional elements such as expectation, goal setting, and self-efficacy beliefs. The scale item pools were sent to 5 faculty members from two public universities in Turkey for expert opinion. Following the expert opinion, to confirm the language, appearance, and content validity of the scale, the opinions of three psychologists working in the public sector were obtained, resulting in a 20-item Prisoners' Reading Motivation Scale (PRMS) item pool.

Data Collection Tool and Data Collection

The data for the study were collected using the draft version of the "Prisoners' Reading Motivation Scale", which aimed to identify the characteristics associated with prisoners' reading motivation at related Closed Penitentiary Institution in Turkey. Apart from demographic information such as age, length of imprisonment, educational level, and reading duration, determined by the researcher based on a wide range of literature, the scale consists of a total of 20 questions.

To finalize the scale, the "Expert Assessment Form" was administered to five academics in the related field and three psychologists. The Davis Technique was employed to ensure the content validity of the scale. Using the Davis Technique, the Scope Validity Index (SVI) for the entire scale was calculated, and the Scoep Validity Ratio (SVR) for the remaining items was determined (Lawshe, 1975). Following expert opinions, the draft of the Prisoners' Reading Motivation Scale, consisting of 20 items, was reduced to 9 items. Before being applied to a large sample, the scale underwent a pilot implementation conducted by the researcher.

During the pilot implementation, a total of 70 inmates participated. Items that inmates found difficult to understand during the pilot application were explained, and adjustments were made to the scale before the main implementation. To ensure the structural validity, item analysis, and internal consistency of the main scale, the draft scale was administered to 70 inmates with a one-week interval between each administration. The Prisoners' Reading Motivation Scale (PRMES) is a five-point Likert-type scale, rated from 1 to 5, with response options "Strongly Disagree", "Disagree", "Neutral", "Agree", and "Strongly Agree."

Data Analyses

Validity refers to the extent to which the intended variant can be measured without being mixed with other variants (Mohajan, 2017, pp. 59-82). In other words, validity can be explained as

the degree to which the scale serves its purpose. Structural validity of the scale refers to the degree to which the scale tool accurately measures the abstract behavior it intends to measure (Ghazali, 2016, pp. 148-157). One of the most effective ways to determine the structural validity of a measurement tool is through factor analyses (Alharbi, Aljemaiah & Osman, 2022, p. 115).

In the initial stage of the scale development process, the draft scale underwent factor analysis tests using the SPSS (Statistical Package for the Social Sciences) program, including the Kaiser-Meyer-Olkin (KMO) measure, Barletts's Test of Sphericity, Anti-Image Correlation, Principal Component Analysis, and Varimax Rotation Method. Varimax rotation is an important second step for Factor Analysis and Principal Component Analysis. Varimax rotation allows for the interpretation of initial factors and their transformation into new factors (Gannon-Cook, 2010). Varimax rotation maximizes the sum of the squared loadings, making the correlation between variables and factors significant (Merenda, 1997, pp. 156-164). Simply, the result highlights a small number of significant variants, which facilitates interpretation of the results (Stephens & Bredemeier, 1996, pp. 57-66).

Reliability refers to the extent to which the connections established among scale or test items reflect the researched problem to the participants (Pretty, Cacioppo & Goldman, 1982, pp. 847-855). In the current study, to ensure the reliability of the scale, the Spearman-Brown, Shapiro-Wilk Test ($p<0.005$), Cronbach Alpha, and test-retest methods were employed to determine the stability configuration reliability coefficients (Eisinga, Grotenhuis & Pelzer, 2013, ss. 637-642).

Findings

Before conducting an item analysis of the scale, the total correlation scores of 20 items were examined.

Table 2. Mean, Standard Deviation, Total Correlation Scores

Items	x̄	Sd.	Item-Total Correlation
1	4,01	1,04	1,000
2	4,22	,887	,764**
3	3,71	1,19	,306**
4	3,77	1,11	,475**
5	3,94	1,05	,643**
6	3,52	1,28	,221**
7	2,65	1,24	-,174
8	3,67	1,18	,086
9	3,84	,972	,202
10	2,36	1,36	-,321**
11	4,00	1,00	,152
12	4,24	,907	,563**
13	3,95	,984	,340**
14	4,20	,900	,572**
15	4,01	1,06	,494**
16	4,04	,898	,565**
17	3,13	1,27	,153
18	3,57	1,18	,005
19	2,37	1,22	,-287*
20	3,00	1,28	,055

p<0,05*, p<0,01**

Item-total correlations express the relationship between each item and the total score of the scale (Zijmans et al., 2018, pp. 2298). Item-total correlations are expected to be between 0.20-0.40 (Hamilton et al., 2021, pp. 863-879). When Table 2 is examined, it is observed that 14 items are significant at p<0.005* and p<0.001 levels, while 6 items fall below the criterion of r=0.30, thus they are removed from the scale (Abeele et al., 2020, p.102370).

Table 3. KMO and Barlett's Test of Sphericity Resuls of the Scale Used in the Pilot Study

KMO (Kaiser-Meyer-Olkin)	,768
Barlett's Test of Sphericity	647,133
Df	190
Sig.	,000

The Kaiser-Meyer-Olkin coefficient (KMO) of the draft PRMS used in the pilot study (0.768) and the significance of Barlett's test of sphericity (X^2=647.133) at the level of p=0.000 were found to be moderately significant (De Benedicts et al., 2021). Additionally, the anti-image "r" value of the draft PRMS is above 0.5, which is considered an acceptable value (Shrestha, 2021, pp. 4-11). The obtained values indicate that the factor moderately represents the original variables.

The initial factor analysis began with 20 items, and varimax rotation was employed to facilitate the interpretation of factor loadings obtained during the factor analysis. Following varimax rotation, it was determined that the scale consisted of 5 factors. However, some items had factor loadings below r=0.30, resulting in their overlapping under the same factor. Overlapping items indicate a low relationship between the variant and factors, implying that they are not well explained by the factor analysis (Bachaus et al., 2021). This situation limits the contribution of the variant to the results of the factor analysis and necessitates its removal from the scale. Therefore, overlapping items in the scale (r<0.30) were removed, and a second-factor analysis was conducted. A total of 224 inmates and detainees participated in the second-factor analysis.

Implementation of the Core Scale

Following the factor analysis conducted on the draft scale, 6 items with factor loading below r=0.30 were removed, and varimax rotation was applied to the core scale consisting of 14 items. During the implementation of the core scale, 154 inmates and detainees with different reading habits, age ranges, and criminal status characteristics were included to reach three times the number of questions in the scale (n=224) for adequacy. The results of the KMO and Barlett's test of sphericity, demonstrating the sufficiency of the participant number in the implementation of the core scale, are detailed in Table 4.

Table 4. KMO and Barlett's Test of Sphericity Resuls of the Scale Used in the Core Application

KMO (Kaiser-Meyer-Olkin)	,798
Barlett's Test of Sphericity	789,282
Df	91
Sig.	,000

When examining Table 4, it is observed that the KMO value of the scale used in the core application is 0.798. This value indicates that the sample size of the study is sufficient (Liu et al.,

2020). The p-value of Barlett's Test of Sphericity is greater than 0.5, hence factor analysis can be continued (Tobias & Carlson, 1969, pp. 375-377).

Exploratory Factor Analyses (EFA) conducted both before and after the scale development processes are important steps for determining scale factors and testing the reliability of the scale. Although scale development stages are defined by different researchers, the current study is based on the scale development stages outlined by Güris and Astar (2014).

Table 5. The Scale Development Stages by Güris and Astar

Araştırmacı	**States of Factor Analysis**
Güriş and Astar (2014)	1. Suitability of the dataset for factor analysis
	2. Identification of factors
	3. Factor rotation
	4. Naming of factors

The primary characteristic of the developed scale is validity and reliability (Fokides, 2023). In the present study, the validity and structure of the developed scale were examined in two stages. For the content validity of the scale, the opinions and suggestions of academics and psychologists working in public institutions were obtained, and items were added or removed accordingly. Exploratory factor analysis (EFA) was conducted for structural validity. Additionally, sensitivity and consistency were examined to ensure the reliability of the scale. Cronbach's Alpha values were examined for internal consistency.

Factor Analyses on the Validity of the PRMS

For EFA to be effective, the sample size was initially examined. Outliers were identified and removed from the scale items. The implementation of the core scale began by considering factors such as the characteristics of the target population, confidence interval, and margin of error, to ensure the significance of the scale's item count. After examining the KMO values of the core scale, the total variance explained by each item in the common factors was considered. The commonality value of each variable indicates how much of the variable's variance is explained by the factors identified in the factor analysis (Yanai & Takane, 2007, pp. 345-366).

Table 6. Total Variance Values of the PRSM

Item No.	Total	Base values After Rotation
3	1,000	,676
5	1,000	,686
6	1,000	,495
7	1,000	,714
9	1,000	,662
10	1,000	,672
11	1,000	,499
12	1,000	,629
13	1,000	,498
15	1,000	,544
17	1,000	,472
18	1,000	,708
19	1,000	,719
20	1,000	,413

In content analysis conducted using varimax rotation, it is desired that item factor loadings have a value above 0.30 (Tavakol & Wetzel, 2020, p. 245). Before varimax rotation, it was considered that item factor loadings should be at least above .30. Items with factor loadings below .30 before the pilot application were removed from the scale. When examining Table 6, it can be seen that the base values of items after rotation are above 0.30.

After the implementation of the core scale, varimax rotation was applied. Following this process, in the second-factor analysis conducted with 14 items, it was found that the scale converged into 4 sub-dimensions, and the sub-dimensions were perfectly grouped.

Table 7. Total Variance Values by PRMS After Rotation

Factor	Variance (%)	Cumulative	Total (%)
1	26,17	26,11	17,69
2	17,51	43,69	2,289
3	8,675	52,36	1,854
4	7,531	59,89	1,765

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When examining Table 7, it can be understood that the analysis resulted in a four-factor structure with base values greater than 1. It is desired that the total explained variance be greater than 50% (Steiner, 1994). PRMS has an explanatory power of 59.89% on the explained variance.

Another important way to identify structures in scale development is by examining the scree plot. The scree plot typically represents a graph showing the accumulation of a variable (Zhou et al., 2023, pp. 5549-5569). The purpose of this plot is to visually inspect the distribution, central tendency, and dispersion of a variable (Yu et al., 2021, p. 100024).

Figure 1. Screen Plot for Determining the Number of Factors in PRMS

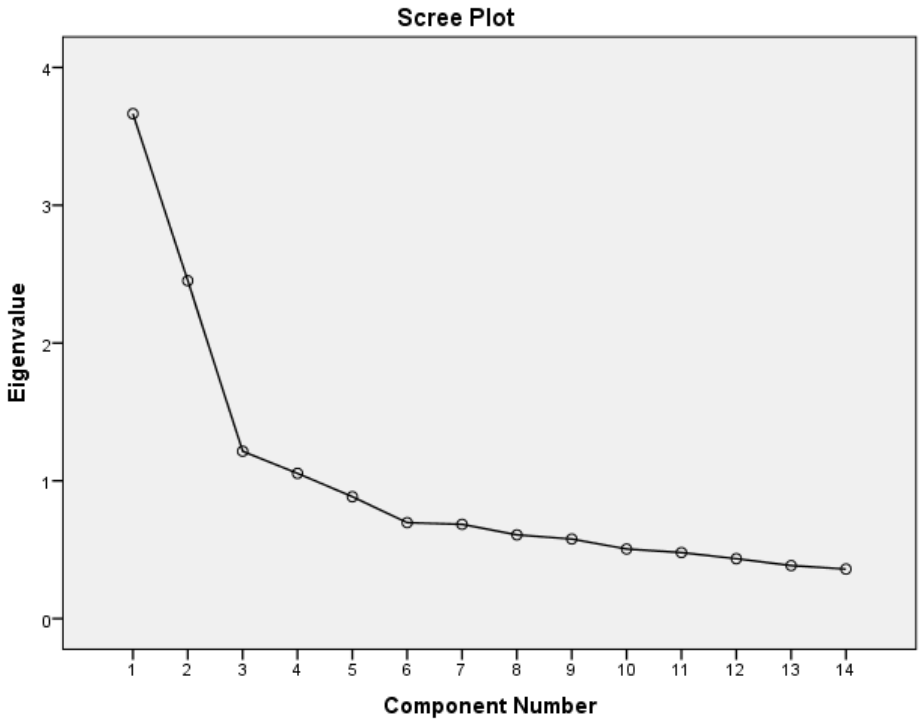

Figure 1 displays factor structures with values on the vertical axis based on base values greater than 1 (Cliff, 1988, p. 276). According to Çokluk and others (2012), factor numbers should be determined by considering steep drops in scree plots. By examining both base values and screen plots, it was decided that PRMS consists of a four-factor structure.

After determining the factor structure and the number of factors of PRMS, item loadings were examined to determine under which factors the items were grouped. Item correlations were examined along with Pearson Correlations and presented together in Table 6.

Table 8. Results of EFA for PRMS

Item no.	Items	Pearson Correlation Coefficients			
		Fac.1*	**Fac.2***	**Fac.3***	**Fac.4***
9	Reading changes my behavior.	1			
12	Reading changes my perspective.	,44**			
13	Reading improves my communication skills.	,39**			
11	I read to acquire positive behaviors.	,42**			
15	I acquire new skills through reading.		,36**		
3	I select books according to my purpose of reading.		,20**		
5	I do not read insufficient books.		,23**		
6	The number of books I read is an indicator of my well-being.		,29**		
18	I recommend reading to people around me.			,088*	
17	I usually read to pass the time.			,027*	
20	I do not always read to learn from every book.			,069*	
19	I question my knowledge while reading.				,-058*
7	The number of books I borrow from the library is important.				,190**
10	Sometimes I borrow books from the library just for show.				,063*

*Factor1 “Personal Development”, **Factor2 “Well-being”, ***Factor3 “Acquiring Knowledge”, ****Factor4 “Reading Activity” (*p<0.005 - **p<0.001)

When examining Table 8, it is observed that PRSM has a four-factor structure. Factor 1 is represented by 4 items and has factor loadings ranging from 1 to 0.42 in the Pearson Correlation matrix. Since the items grouped under Factor 1 are more related to personel development, it is named “Personel Development”, Factor 2 has factor loadings ranging from 0.36 to 0.29. Since the scale items represent well-being, it is named “Well-being”. Factor 3 has factor loadings ranging from 0.088 to 0.069 and is named “Acquiring Knowledge”. Factor 4 has factor loadings ranging from -0.058 to 0.063 and is named “ Reading Activity”.

Factor Analyses on the Validity of the PRMS

Reliability analyses for the 14 items and 4 factors of PRMS are presented in Table 9.

Table 9. Cronbach's Alpha Coefficients for the Reliability of PRMS

	Cronbach's Alpha (α)
Personal Development	,731
Well-being	,734
Acquiring Knowledge	,700
Reading Activity	,760
Total	,722

When examining Table 9, it is determined that the Cronbach's Alpha value for the Personal Development sub-dimension of PRMS is 0.731, for the well-being sub-dimension is 0.734, for the acquiring knowledge sub-dimension is 0.700, and for the reading activity sub-dimension is 0.760. Looking at the Cronbach's Alpha values in Table 9, it can be concluded that the scale's internal consistency coefficient is at an acceptable level (Taber, 2018, pp. 1273-1296).

Refinement and Finalization of the Scale After Statistical Analyses

As a result of statistical analyses, the Prisoners' Reading Motivation Scale has been developed, consisting of four factors and 14 items. Based on the items clustered under the factors, the first factor is named "personal development", the second factor is named "well-being", the third factor is named "acquiring knowledge", and the fourth factor is named "reading activity". Since the scale consists of 14 items, scoring between 0-40 indicates "low reading motivation" scoring between 41-70 indicates "moderate reading motivation", and scoring between 71-100 indicates "high-level reading motivation". The sub-factors included in the scale, the scale items, and the item loadings indicating the contribution of each item to reading motivation are shown in Table 10.

Table 10. The Sub-factors of PRMS, the Items, and the Item Loading Values

Sub-Factors	Scale Item Nu.	Scale Items	Item Loading Value
Factor 1 Personal Development	9	Reading changes my behavior.	,709
	12	Reading changes my perspective.	,606
	13	Reading improves my communication skills.	,436
	11	I read to acquire positive behaviors.	,420
Factor 2 Well-being	15	I acquire new skills through reading.	,646
	3	I select books according to my purpose of reading.	,664
	5	I do not read insufficient books.	,627
	6	The number of books I read is an indicator of my well-being.	,501
Factor 3 Acquiring Knowledge	18	I recommend reading to people around me.	,700
	17	I usually read to pass the time.	,609
	20	I do not always read to learn from every book.	,576
Factor 4 Reading Activity	19	I question my knowledge while reading.	,724
	7	The number of books I borrow from the library is important.	,686
	10	Sometimes I borrow books from the library just for show.	,636

Tablo 10 presents the four main factors indentified within the Personal Reading Motivation Scale (PRMS) along with the corresponding scale items. These factors are categorized as Personal Development, Well-Being, Knowledge Acquisition, and Reading Activity. The personal development factor emphasizes the impact of reading on behaviors and communication skills, with the statement “My reading behavior is changing” demonstrating a strong indicator of this effect, evidenced by a loading value of 0.709. The well-being factor examines the influence of reading on individuals’ quality of life and happiness, supported by the statement “The number of books I read is an indicator of my well-being”, which has a loading value of 0.501. The knowledge acquisition factor addresses how reading is utilized for the purpose of gaining knowledge, with the statement “I recommend reading to the people around me” highlighting the importance of

this factor, reflected in a loading value of 0.700. Finally, the reading activity factor investigates individuals' active participation in the reading process and their critical thinking skills, with the statment "I question my knowledge while reading" supporting this aspect, indicated by a loading value of 0.724. Overall, this table elucidates the multifaceted effects of reading on individuals' personal development, well-being, knowledge acquisition, and reading activities.

Discussion and Conclusion

In this study, a two-stage scale was developed to investigate the validity and reliability of the motivation for reading among detainees and convicts at a Closed Penitentiary Institution in Turkey. The Prisoners' Reading Motivation Scale consists of 14 items and four subscales according to the results of Exploratory Factor Analysis (EFA). As a result of varimax rotation, items 9, 12, 13, and 14 were grouped under Factor 1, items 15, 3, 5, and 6 under Factor 2, items 18, 17, and 20 under Factor 3, and items 19, 7, and 10 under Factor 4. The literature review revealed that many scales developed in the field of reading motivation have reached findings related to the factors specified in the current study. However, the sub-factors of these scales, aiming to measure reading motivation among students, need to be restructured to measure the reading motivation of prisoners.

The second-level confirmatory factor analysis (CFA) results indicated that the item loads were significant at the $p<0.001$ level and that the item loads could explain over 50% of the intended factors. The R^2 values did not collectively exceed r=.30, and the relationship between factors was found to be significant according to Pearson Correlation analysis at the $p<0.001$ and $p<0.005$ levels, suggesting that the scale meets the validity criteria. By comparing it with the reference intervals found in the literature, it can be argued that the developed scale has an acceptable level of validity (Kim, 2011, pp. 861-881; Katranc, 2015, pp. 300-307; Schiefele et al., 2012, pp. 427-463).

The Cronbahc's Alpha reliability coefficients for the sub-dimensions of the Motivation to Read Questionnaire (PRMS) are as follows: 0.731 for the personal development sub-dimension, 0.734 for the desire for improvement sub-dimension, 0.70 for the information acquisition sub-dimension, 0.760 for the reading activity sub-dimension, and 0.722 for the overall scale. Cronbach's Alpha reliability coefficients for PRMS are considered acceptable (Pallant, 2016). PRMS was developed to identify factors affecting prisoners' motivation to read. Since the research sample consisted of 224 detainees and convicts from a Closed Penitentiary Institution in Turkey, the findings of the study are limited to the opinions of the research sample. In the future, it may be recommended to apply PRMS in larger sample groups to determine which variables are effective on prisoners' motivation to read.

In a study conducted by More (2002), it was found that the desire for information acquisition increases prisoners' motivation to read (Mori, 2002, pp. 77-80). Kim (2011) obtained supportive data for Mori's (2002) findings in another study (Kim, 2011, pp. 173-179). Additionally, Huang et al. (2014) also determined that prisoners read more to acquire information, leading to increased reading motivation. In the current study, when examining the Pearson Correlations among the items grouped under Factor 1 to measure the effects of knowledge acquisition on reading motivation, it is observed that the significance values of 4 items are significant at $p<0.001$,

indicating a significant and related relationship. The item load values explaining the factor of knowledge acquisition are considered acceptable at around 50%. From these findings, it can be concluded that the desire for knowledge acquisition has a positive effect on prisoners' motivation to read.

Well-being refers to prisoners' efforts to reform their behaviors, adhere to rules, and exhibit appropriate conduct after their release. Encouraging compliance with societal norms through good behavior can enhance prisoners' motivation to read. In this process, reading serves as a constructive factor in developing appropriate behaviors. In a study conducted by Mori (2002), it was suggested that reading motivation positively influences prisoners' good behavior and discipline. Chen et al. (2013), in another study, argued that reading motivation contributes to an increase in the level of good behavior, thereby encouraging prisoners to allocate more time to constructive activities such as reading (Chen & Jiang, 2013, pp. 460-478). Vega et al. (2009) also found that reading motivation significantly contributes to directing prisoners towards more constructive activities and promoting good behavior (Vega, O'Connell & Glister, 2009, pp. 233-247). In the current study, when examining the Pearson Correlation Coefficients, it is observed that all items grouped under the well-being factor show a positive significance at $p<0.001$. Additionally, all items under the good behavior factor explain the intended variable at over 50%.

For prisoners, personal development signifies the process of self-discovery, enhancing their skills to integrate into society and achieve their goals after release. Wang and Guthrie (2004) argued that reading motivation has a positive relationship with prisoners' personal development (Wang & Guthrie, 2004, 162-186). Falk et al. (2014) stated that prisoners' participation in reading programs increases their overall motivation and contributes to their well-being (Falk & Wilson, 2014, pp. 658-674). Wentzel (1997) also found supportive evidence for Wang, Guthrie (2004), and Falk (2014) in his research (Wentzel, 1997, ss. 411-419). In the current study, when examining the Pearson correlation coefficients for the personal development factor, it was found that the items exhibit a significant positive correlation with each other at the $p<0.001$ level. Additionally, the item loads indicate that the items explain the intended factor at around 50%.

Engaging in continuous reading through reading activities can strengthen prisoners' reading motivation. Sutton et al. (2003) found in their research that regular reading activities increase prisoners' reading motivation and positively affect their overall psychological well-being (Sutton, Mason & Chesney-Lind, pp. 107-124). Wang and Guthrie (2004) argued that engaging in regular reading activities enhances reading motivation among prisoners. Chen et al. (2018) stated that reading activities not only affect reading motivation but also reduce prisoners' stress levels, providing psychological relief (Chen, Xu & Hu, 2018, pp. 899-904). These findings suggest that reading activities can positively influence prisoners' overall well-being and hence their reading motivation. Pearson correlation analysis regarding reading activity revealed that the items exhibited positive and negative relationships with each other at the $p<0.005$ and $p<0.001$ levels. Additionally, the total item loads of the items grouped under reading activity explain the factor at over 50%.

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