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How Do Teachers Survive? Turkish Adaptation of Selection, Optimization, and Compensation Strategies Scale

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Abstract

The continuous development of professional competencies and active retention of teachers in the field, stemming from alterations in their professional life cycles, are intrinsically connected to the necessity of lifelong learning for teachers. The model of selection, optimization, and compensation (SOC) strategies can be used to gain insight into the ways in which teachers manage their resources to remain in the profession, how they adapt to their professional lives in the context of lifelong learning, and how to develop effective policies to support the professional development of teachers. Although previous research has emphasized the primary factors that influence teachers' professional development and motivation, there is a scarcity of research on the strategies that teachers use to maintain their employment. In order to fill this gap, this study aims to adapt the Selection, Optimization, and Compensation Scale (SOCS) (Zacher & Frese, 2011), which emphasizes the strategies that teachers use to remain effective in their professional lives, into Turkish. The sample of the study consisted of 299 teachers working in schools in Çekmeköy district of Istanbul province. In the adaptation process of the scale, Turkish translation, back translation, cross-checking, and Turkish face validity stages were followed. Confirmatory Factor Analysis (CFA) was conducted to evaluate the construct validity of the scale. The CFA revealed excellent fit indices for the scale. Consisting of 12 items and three dimensions, the reliability of the scale was evaluated using Cronbach Alpha internal consistency coefficient and composite reliability coefficient (CR). The internal consistency coefficient was 0.81, while the CR value was 0.902. The study's findings demonstrate that the Turkish version of the SOCS is a valid and reliable tool for assessing teachers' use of SOC strategies.

Key words: Lifelong learning, conservation of resources theory, scale adaptation, selection, optimization and compensation.

Introduction

Researchers frequently investigate employees' motivation to remain in their professions (Demerouti et al., 2014; Räsänen et al., 2020) and their active engagement in their professional lives (Moghimi et al., 2016; Müller et al., 2012). It is also recognized that employees maintain their professional functionality by monitoring their gains and losses in order to update their objectives (Meng et al., 2023; Müller et al., 2012; Riedel et al., 2015). According to the Survey of Burnout Rates in the US Labour Force by Occupation (GALLUP) (2022), 44% of teachers experience burnout at work, which is the highest among 14 occupations (Marken & Agrawal, 2022). The fact that teachers are apprehensive about their capacity to remain actively engaged in their profession as their seniority increases leads to issues regarding retention policies and support mechanisms (Geiger & Pivovarova, 2018; Lynch, 2016; Perryman & Calmert, 2019). The Selection, Optimization, and Compensation (SOC) strategies model, which investigates the management of employees' professional and personal lives, highlights the critical role of lifelong learning in individuals' development. This model encompasses a variety of functional areas, including academic achievement, social relations, and professional life, and it is applicable to both micro and macro levels (Baltes, 1997; Baltes & Baltes, 1990; Freund, 2008; Freund & Baltes, 2002; Maass, 2017). Due to its comprehensiveness, Kurt (2016) also refers to it as a metatheory or metamodel. SOC strategies have been

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developed as an alternative to the limited resources available to maintain the ability to work, as outlined in the Conservation of Resources Theory (COR). By diversifying and renewing the resources of individuals, lifelong learning contributes to the conservation of the employee's resources, which is the primary objective of the COR theory. SOC strategies assist individuals in the more effective management of their resources by guiding them through this process. In addition to the disciplines of psychology (Diestel, 2022; Teshale & Lachman, 2016; Wurm et al., 2013), sociology (Sabuncu, 2023), and gerontology (Han & Ko, 2021; Hutchinson & Warner, 2014), research on working life also garners attention (Bal et al, 2013; Becker et al., 2017; Mauno et al., 2020; Müller and Weigl, 2012; Yeung and Fung, 2009; Zacher et al., 2015; Zacher and Frese, 2011).Research on the application of SOC strategies in the workplace has demonstrated that it is particularly important for employees to effectively manage the reduction of individual resources (Riediger et al., 2006). Additionally, it is linked to job commitment, job satisfaction, job performance, and well-being (Moghimi et al., 2016; Müller et al., 2015), organizational citizenship behavior (Müller et al., 2015), and turnover intention (Demerouti et al., 2014). Age, job autonomy, job performance, job satisfaction, and job commitment were all discovered to be positively correlated with the implementation of the SOC strategy in the workplace by Moghimi et al. (2017). Furthermore, Yang (2013) advocated for the implementation of the SOC model to safeguard data centers in workplaces. In fact, it is asserted that the implementation of SOC strategies is positively correlated with job performance and job ability across various work groups (Mauno et al., 2020; Riedel et al., 2015; Viotti et al., 2019; Weber et al., 2018; Yeung & Fung, 2009). It is important to note that research findings indicate that teachers in numerous countries are inclined to terminate their careers (Robertson et al., 2012; Räsänen et al., 2020; Sutcher et al., 2016). This is particularly evident in the context of educational organizations. Low job satisfaction, challenging working conditions, increasing workload, and low autonomy are the primary reasons for teachers' departure from the profession (Bakker et al., 2014; Räsänen et al., 2020). However, a valid and reliable instrument in Turkish that asks how teachers who actively maintain their professional performance and enthusiasm use SOC strategies might help us understand what keeps teachers in their jobs and what factors help them keep doing well in their job.

The Selection, Optimization, and Compensation Scale (SOCS), created by Abraham and Hansson in 1995, was the first scale to evaluate the efficacy of SOC strategies in the workplace. Bal et al. (2013) employed the SOCQ exclusively in a company sample. Baltes et al. (1999) developed the SOCQ scale in German and English, and Freund and Baltes (2002) adapted it into a condensed version. Research on SOC strategies primarily utilizes this scale. It has been implemented in a variety of sample populations, including elderly individuals diagnosed with depression (Huber et al., 2009) and anxiety disorder (Löwe et al., 2012), visually impaired (Kramer et al., 2003), and hearing impaired (Smith et al., 2007), as well as young adults aged 20-30 (Scholz et al., 2005). Zacher and Frese (2011) modified the 12-item short version of the SOCQ (Freund & Baltes, 2002) to make it more relevant to the workplace by prefixing the items with "at work." Zacher and Frese (2011) implemented this version in a variety of sample groups, including white and blue-collar employees, flight attendants (Weigl et al., 2014), and insurance employees (Yeung & Fung, 2009). Zacher et al. (2015) adapted the same scale once more, but this time, they added the phrase "Today" to the beginning of each of the 12 items. This version assessed the nine-day work engagement of employees in a company. Meng et al. (2021) developed the Questionnaire for Measuring Employees' Perception of Selection, Optimization, and Compensation at the Leadership, Group, and Individual Levels. In the development study, healthcare professionals make up the scale's sample. Kurt and Uçanok (2021) translated the 48-item long form of the SOCQ (Freund & Baltes, 2002) into Turkish to assess the processes outlined in the SOC model in the field of psychology broadly. Participants between the ages of 18 and 30, evenly distributed across a variety of demographic variables, including gender, education level, and age, comprised the study's sample.

Significance of Research

Researchers have utilized SOCS in a variety of sample groups to investigate how employees utilize and develop their resources in their professional lives and continue to engage in their professions (Brown et al., 2009). However, research on teachers is relatively limited. A valid and reliable Turkish measurement tool for assessing teachers' use of SOC strategies in their professional lives may enable educators to identify the strategies they employ. Moreover, it can be instrumental in determining resource allocation and supporting professional development at the individual and organizational levels by facilitating teachers' lifelong learning.

Purpose of the study

The objective of this study was to translate and adapt the short version of the Selection Optimisation and Compensation Strategies Scale (SOCS), originally developed for working life by Zacher and Frese (2011), into Turkish, resulting in the Turkish version entitled the Selection Optimisation and Compensation Strategies Scale-SOCSS.

Theoretical Framework

Lifelong Learning and Conservation of Resources (COR) Theory

Individuals continue to face distinctive obstacles in maintaining their employability as a result of rapid technological advancements, globalization, socio-economic changes, and dynamic work environments (Jabeen et al., 2021). In parallel with these obstacles of employees, organisations also take coordinated actions aimed at retaining their valuable employees (Kaźmierczyk et al., 2020). Lifelong learning is necessary for the employee to recognise himself/herself professionally and to develop his/her competencies and to continue his/her profession as a participant in difficulties or change processes. In addition, within the framework of lifelong learning, organisations supporting their employees in both early career and late career stages can enable individual and organisational goals to remain in balance. Therefore, being aware of employees' developmental needs and preferences is necessary to support them.

SOC strategies have emerged from the COR theory (Hobfoll, 1989, 2001). The theory suggests that individuals strive to protect their current resources and acquire new ones (Alarcon, 2011; Halbesleben et al., 2014). Halbesleben et al. (2014) define resources as the elements that enable employees to effectively fulfill job requirements. We can classify the resources into four categories: social supports (from managers and colleagues), material resources (like training materials), lifelong learning opportunities (like training programs, seminars, and mentoring), and internal resources (like knowledge and skills). When there is an equilibrium between the demands placed on employees and the resources available to them, they experience a sense of competence in handling their responsibilities, which in turn boosts their motivation and commitment to remain in their jobs. Conversely, when there are high expectations and insufficient resources, motivation can decrease, and the likelihood of employees leaving the company can increase. The COR theory is a theoretical framework that clarifies the connection between various factors and is employed to predict levels of employee engagement and job satisfaction (Alarcon, 2011; Halbesleben et al., 2014).

Selection, Optimization and Compensation (SOC) Model

The SOC model is a conceptual framework employed to comprehend the continuous and comprehensive growth of individuals throughout their lives (Baltes & Carstensen, 1996; Baltes & Li, 1999; Freund & Baltes, 1998; Lang & Baltes, 1997; Marsiske et al., 1995). Freund and Baltes (1998) argue that development entails individuals actively and purposefully adapting to and influencing both their internal and external surroundings. The SOC strategies model proposes three primary processes of developmental regulation: selection, optimization, and compensation, based on the given assumptions (Moghimi et al., 2019).

Selection

Selection is the process by which employees identify and select a subset of objectives from among possible alternatives. This process focuses limited resources on potential targets (Heckhausen, 1999). The selection process takes place in two ways: elective (vountary) selection and loss-based. Elective (voluntary) selection refers to dedication to and development of goals, creating a hierarchy of goals by focusing on desirable states (e.g., an employee prefers work-related development by extending working hours instead of spending time on hobbies until he/she reaches a certain professional career). Loss-based choice occurs in response to losses that threaten goal attainment or maintenance (Heckhausen, 1999). It involves restructuring one's goal hierarchy in order to manage losses by adjusting goal standards or focusing on different goals (e.g., a teacher who realizes that he/she is not sufficiently equipped to achieve the professional career the employee is aiming for and instead chooses to prepare a scientific project for his/her school with the skills he/she has).

Optimization

Optimization refers to the systematic process of obtaining, implementing, and improving the methods necessary to accomplish specific objectives. For example, a teacher may optimize their efforts by dedicating time outside of class to write a scientific project for their school and engage with students (Baltes, 1997).

Compensation

Compensation refers to the utilization of alternative methods to sustain a desired level of performance when the original means to achieve a specific goal are no longer accessible. For instance, a teacher who intends to write a scientific project for their school may seek assistance from fellow colleagues or attend relevant training sessions to make further advancements in the project (Abraham & Hansson, 1995; Bajor & Baltes, 2003; Freund & Baltes, 2002).

Measurement Instruments Designed for SOC Strategies

Abraham and Hansson (1995) developed the first scale relating to SOC strategies. Consisting of 24 items, the SOC Scale includes three sub-dimensions: selection, optimization, and compensation. There are nine items in the selection sub-dimension, seven items in the optimization sub-dimension, and eight items in the compensation dimension. A six-point Likert-type scale (‘1’ not at all—'6'' very much) is used for responses. The scale's Cronbach alpha value is 0.83 and exceeds 0.80 for each sub-dimension. Bal et al. (2013) conducted the scale's only study on a sample of Dutch companies.

The studies on SOC strategies mostly rely on the short version of the SOC questionnaire developed by Baltes et al. (1999) in German and English and adapted by Freund and Baltes (2002). Both versions of the original SOC questionnaire (Baltes et al., 1999) consist of four subscales, namely ‘’elective selection‘’, ‘’loss-based selection‘’, ‘’optimization‘’ and ‘’compensation‘’. The long version of the SOCQ consists of 12 items measuring each sub-dimension, totaling 48 items. The short version consists of 12 items in total, three for each sub-dimension. In both versions, each of the items in the questionnaire is evaluated with two options, and the participants are asked to choose the most appropriate statement. An example item is ‘I always focus on the most important goal’ (SOC strategy: voluntary choice) or ‘I always work on several goals at the same time’ (non-SOC behavior). Cronbach's alpha ranged between 0.67 and 0.78 for the subscales. Freund and Baltes (2002) conducted the validity and reliability analyses of the scale in a different study. Studies in the literature mostly prefer the 12-item short version of the scale due to its practicality. Many different sample groups have used it, including adults aged 70-80 years (Baltes & Baltes, 1990), young adults aged 20-30 years (Scholz et al., 2005), visually impaired (Kramer et al., 2003), hearing impaired (Smith et al., 2007), elderly people, elderly people with depression (Huber et al., 2009), and elderly people with anxiety disorder (Löwe et al., 2012). Zacher and Frese (2011) adapted the short version of the SOCQ (Freund & Baltes, 2002) in two ways. Firstly, by adding the word ‘at work’ in front of the items, they enabled the participants to answer with a special instruction. Secondly, 12 response options reflecting SOC behaviours were used and the other 12 alternative response options expressing non-SOC behaviours were removed from the scale. The same scale was adapted once again by Zacher et al. (2015) and this time the word ‘today’ was added in front of each of the 12 items. A five-point Likert-type response scale (‘1’ not at all valid - ‘5’ completely valid) was preferred. The Cronbach's alpha value of this scale adapted in the context of working life is 0.77. Again, Cronbach's alpha value for the form adapted by Zacher et al. (2015) to measure nine-day work engagement is 0.94. However, the results of this scale regarding the use of SOC strategies in working life are reported in four different ways in the literature. Firstly, for the SOC questionnaire as an ordered series of strategies, some researchers express only an overall SOC score (Weigl et al., 2014; Zacher & Frese, 2011). Researchers who express separate scores for each of the four sub-dimensions in addition to the overall score present the second method (Demerouti et al., 2014; Yeung & Fung, 2009). Thirdly, a total of three scores are reported, a combined score for elective selection and loss-based selection, and two separate scores for optimization and compensation (Wiese et al., 2002; Zacher et al., 2015). Finally, Abele and Wiese (2008) report scores for only one or two of the four sub-dimensions of SOC strategies. This version, adapted to working life, has been used in different sample groups such as white-collar and blue-collar company employees (Zacher & Frese, 2011), flight attendants (Weigl et al., 2014), and insurance employees (Yeung & Fung, 2009).

Meng et al. (2021) developed the ‘Scale for Measuring Employees’ Perception of SOC at Leadership, Group, and Individual Levels’ to measure the use of SOC strategies at individual, group, and leadership levels in working life. The scale consists of three sub-dimensions and 29 items. Cronbach's alpha value

varies between 0.69 and 0.90 for the sub-dimensions. The items were answered with a five-point Likert-type scale ('1' not valid at all; '5' completely valid). The sample of this scale development study consists of healthcare professionals. In order to measure the processes proposed in the SOC model in the field of psychology in Turkey, the 48-item long form of the SOCQ (Freund & Baltes, 2002) was adapted into Turkish by Kurt and Uçanok (2021). This measurement tool, which they named 'Selection, Optimization, Compensation Questionnaire', was used for the first time in psychology in a study on the well-being of people in emerging adulthood (18-30 years old). The study reported that the Croncbach's alpha value varied between 0.79 and 0.81 for the three sub-dimensions. The sample of this scale adaptation study consisted of participants between the ages of 18 and 30 years, balanced in terms of various demographic variables such as age group, education level, and gender. This Turkish version is used to measure a general model of SOC in the field of psychology. Therefore, the national literature lacks a specific scale adaptation to evaluate the applications of the SOC model in working life. Considering the importance of the SOC model in working life (Abraham & Hansson, 1995; Bajor & Baltes, 2003; Baltes & Heydens-Gahir, 2003; Wiese et al., 2000, 2002), a scale that adapts this model to the teaching profession and measures the functioning of the strategies used by teachers may enable teachers to allocate the resources they need more effectively.

Method

In the study in which the adaptation of SOCQ (Zacher & Frese, 2011) into Turkish was aimed, the survey model was used. The survey model is a research model preferred to collect data on attitudes, behaviours and opinions of the population based on a sample determined from the population (Fraenkel et al., 2015; McMillan & Schumacher, 2014). Therefore, the research is a scale adaptation study. Since scale adaptation studies mean the adaptation of a tested model to another language, confirmatory factor analysis (CFA) is recommended if there is a predetermined relationship between the scale items when performing factor analysis (Kline, 2019). While exploratory factor analysis (EFA) is suitable for scale development studies to define the nature of the scale, CFA is preferred to determine the validity of measurement models or a series of measurements (DeCoster, 1998; Hurley et al., 1997). The nature of the scale was discovered by the researcher in the original study, therefore, in this study, CFA method was applied after the data were examined in terms of normality assumptions in order to test the adaptation process of the scale in terms of internal consistency.

Study Group

The study was carried out with a sample size of 308 teachers employed in schools located in the Çekmeköy district of Istanbul province during the academic year 2023-2024. The data collection process utilized the simple random sampling method. The simple random sampling method ensures that every unit in the population has an equal probability of being selected for the sample, thus enabling sophisticated statistical analyses (West, 2016). The rationale behind the choice of teachers employed in 54 public and 126 private schools in the Çekmeköy district is the higher number of schools in Çekmeköy compared to the average in Istanbul, as indicated by the population ratio in the briefing report published by the Çekmeköy District Directorate of National Education (MEM) in 2021. When conducting scale adaptation studies, it is advised to have a sample size for factor analysis that is at least five times the number of parameters that need to be estimated (Tabachnick & Fidell, 2001) or a minimum of 200 observations (Kline, 2019). A total of 308 volunteer participants were recruited for the purpose of obtaining reliable results in CFA. The study excluded the scale forms of nine participants who were incomplete or incorrectly filled out. The study then continued with the scale forms of 299 participants. According to the data of Istanbul Directorate of National Education (2024), the characteristics of the population and sample group are presented in Table 1.

Table 1. Characteristics of the population and sample group

School type	Number of Schools	Number of teachers	Ratio of teachers in the population (%)	Sample	Ratio of teachers in the sample (%)
Preschool	44	136	6,77	27	9
Primary School	37	425	21,18	114	38
Secondary School	49	659	32,85	74	24,6
Anatolian High School	25	457	22,78	13	4,6

Science School	4	81	4,03	7	2,3
İmam Hatip High School	7	73	3,63	27	9
Vocational and Technical High School	10	175	8,72	24	8
Special Education Classes	-	-	-	13	4,3
Total	176	2006	100	299	100

Of the participants, 34.7% (n = 103) were female and 65.3% (n = 196) were male teachers. 2% (n = 6) were associate degree graduates, 73.6% (n = 219) were bachelor's degree graduates, and 25.7% (n = 74) were master's degree graduates. We collected data from a total of 23 schools, with 92.4% (n = 276) being public schools and 7.6% (n = 23) being private schools. Of the participants in these schools, 9% (n = 27) were kindergarten teachers, 38% (n = 114) were primary school teachers, 24.6% (n = 74) were middle school teachers, 4.6% (n = 13) were Anatolian high school teachers, 2.3% (n = 7) were science high school teachers, 8% (n = 24) were vocational high school teachers, 9% (n = 27) were imam hatip high school teachers, and 4.3% (n = 13) were special education class/school teachers. Since special education classes were opened as an additional class in the staff of other schools, the statistical data of the teachers working in these classes could not be expressed in the table. Among the teachers participating in the study, 16.6% (n = 50) had one to five years of service, 15.8% (n = 48) had six to 10 years of service, 21.1% (n = 63) had 11 to 15 years of service, 16.2% (n = 49) had 16 to 20 years of service, and 30.2% (n = 90) had 20 years or more of service. Of the schools in which they were working, 19.2% (n = 57) were located in a lower, 74.3% (n = 222) in a middle, and 6.4% (n = 20) in a lower socio-economic level region.

Data Collection Tool

In this study, the SOCQ developed by Zacher and Frese (2011) was adapted into Turkish. The Turkish version was named as " Selection, Optimization and Compensation Strategies Scale- SOCSS". The original scale, which measures participants' use of SOC strategies in working life, consists of a total of 12 items measuring four sub-dimensions (voluntary choice, loss-based choice, optimization, compensation), each consisting of 3 items. The scale was reorganised by Zacher et al. (2015) and used in three dimensions: selection, optimization and compensation.

In the self-report measurement tool, participants were asked to report what they think, feel and do in their working life in general on a five-point Likert scale (1 = Almost never, 5 = Almost always). Some sample items in the scale are "I keep working until I succeed in what I have planned at work." and "If something is important to me at work, I devote myself completely to it.". The scale form, which included a brief information about the study, was distributed to the volunteer participants by the researchers and the data were collected by the researchers themselves.

Scale Adaptation Process

During the adaptation of the scale into Turkish, evidence of different types of validity was collected by using the translate-retranslate method (Beaton et al., 2000). In the literature, it is frequently emphasised that translators being experts in their fields and having sufficient experience directly affect the validity, reliability and equivalence of translations (Bracken & Barona, 1991; Hambleton & Kanjee, 1995). As shown in Table 2, four different expert groups consisting of experts who are highly proficient in the source and target languages and experienced in translation were formed to consult at each stage of the adaptation process. Except for the experts in the fourth group, all of the experts had a postgraduate degree in educational sciences, were fluent in English and Turkish, and had at least 10 years of professional experience. The characteristics of the experts who contributed to the translation process are shown in Table 2.

Table 2. Characteristics of expert groups

Expert Groups	Aim	Experts	Expertise	Seniority
1. Expert Group	Turkish Translation	E1	English Language Teacher- PhD	13 years
		E2	Interpreter Translator- PhD.	14 years
		E3	English Language Teacher- PhD.	17 years
		E4	English Language Teacher- PhD	11years
		E5	Interpreter Translator- PhD	17 years
		E6	English Language Teacher - MA	11 years

2. Expert Group	Reversing	E1	English Teacher- MA	12years
		E2	Interpreter Translator- PhD	16 years
		E3	English Language Teacher- PhD	11 years
		E4	English Language Teacher - MA	13 years
		E5	Interpreter Translator- PhD	17 years
		E6	English Language Teacher- Ph D	16 years
3. Expert Group	Cross Check	E1	Academician (Teacher Education)- Assoc. Prof. Dr.	21 years
		E2	English Language Teacher- PhD	18 years
4. Expert Group	Face Validity	E1	Preschool Teacher	22 years
		E2	Preschool Teacher	4 years
		E3	Preschool Teacher	7 years
		E4	Primary School Teacher	24 years
		E5	Primary School Teacher	19 years
		E6	Primary School Teacher	14 years
		E7	Primary School Teacher	25 years
		E8	Turkish Language Teacher	21 years
		E9	Social Sciences Teacher	3 years
		E10	Science Teacher	13 years
		E11	Maths Teacher	17 years
		E12	English Teacher	18 years

In the adaptation process, permission was first obtained from the authors of the original scale. In addition, necessary correspondences were made and permissions were obtained from the Ethics Committee of the University and the Directorate of National Education for the implementation of the scale. In the first stage, 12 items were translated into Turkish by six foreign language experts. In order to ensure language validity, it is recommended to use a short and simple language and to get help from translators and experts in the field in translation processes (Hall et al., 2003). According to Seçer (2018), instead of translating the items into Turkish one-to-one, cultural adaptation of the items by Turkish and foreign language experts with the necessary arrangements will contribute to validity and reliability. In this direction, the translated scale was translated back into English by six foreign language experts who are also in the teaching profession. In line with the suggestions received from the experts, the original scale, the translation and the back translation were carefully compared, and the differences and inconsistencies were identified and corrected. Thus, the semantic equivalence between the original language and the translated language was confirmed (Hambleton, 2005).

In order to support the face validity of the scale, a total of 12 teachers (three kindergarten, four primary school and five secondary school teachers) were asked to examine the final version of the translation and to express the points they did not understand on paper. The feedback from the teachers revealed that there were no incomprehensible scale items. Two Turkish language experts were then asked to evaluate the comprehensibility and readability of the scale for the target audience. Thus, the content validity of the scale was theoretically guaranteed by the literature and experts, and face validity was ensured by the opinions of both experts and teachers.

Data Anaysis

Before analysing the data obtained after the translation studies, the suitability of the data to normal distribution was examined. Measures of central tendency and kurtosis and skewness values were taken into consideration to determine the conformity of the data to normal distribution (Tabachnick & Fidell, 2013). The values related to the suitability of the data for normal distribution are presented in Table 3.

Tablo 3. Normality assumption values

Scale dimensions	n	Min.	Max.	Mean	SS	Skewness	Kurtosis
Selection	299	11	30	22,32	3,558	-,308	,279
Optimization	299	6	15	12,84	1,737	-,740	1,113

Compensation	299	6	15	11,85	1,806	-,465	,740
Total Scale	299	24	60	47,01	5,894	-,330	1,099

*p>0,05

Upon examining the kurtosis-skewness values for each scale item in Table 3, it is observed that they fall within the range of -2 to +2. According to researchers, if the kurtosis and skewness coefficients fall within the range of ±2, it indicates that the data follows a normal distribution (Hair et al., 2010). Therefore, researchers discovered that the dataset satisfied the assumptions of univariate normality. We conducted the CFA using the AMOS 21.0 software package after completing the pre-CFA assumption analyses using the SPSS 27.0 software package.

Findings

According to the results of the CFA conducted to reveal the construct validity of the Selection, Improvement and Compensation Strategies Scale (SOCSS), the factor loadings for all items were calculated between 0.473 (e6) and 0.840 (e10). It is recommended that items with factor loadings below 0.40 should be excluded from the analysis on the grounds that their contribution to the research will be low (Beavers et al., 2013; Hinkin, 1998). When the correlations between variables were analysed, no item deletion was performed since the factor loadings of the scale items were above 0.40 and all correlation relationships were significant.

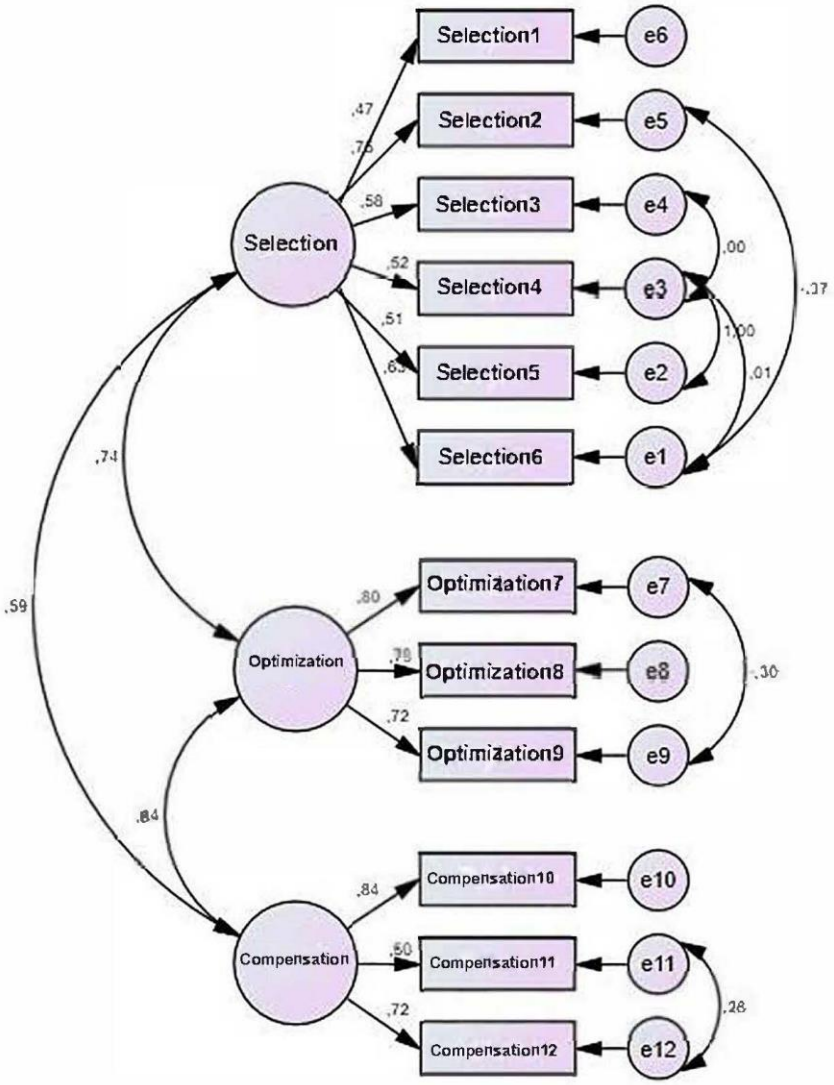
When the AMOS modification indices were examined, the Chi-Square (χ2) value of the modification between e1 and e3 was 13.142, the χ2 value of the modification between e1 and e5 was 13.142, and the χ2 value of the modification between e2 and e3 was 17.747, It is understood that the modification between e3 and e4 will cause a significant decrease in the χ2 value by 10.054, the modification between e11 and e12 will cause a significant decrease in the χ2 value by 10.871, and the modification between e7 and e9 will cause a significant decrease in the χ2 value by 8.191. Afterwards, it was seen that the accepted values were met in the renewed fit value calculations (Simon et al., 2010; Hooper et al., 2008). The fit indices obtained before and after the modifications are shown in Table 4.

Table 4. Suitability of the measurement model for construct validity assessment

Fit Indices	Pre-Modification Values	Post-Modification Values	Excellent Fit Indices	Acceptable Fit Indices	Explanation
ChiSq/df	3,156	2,105	0≤χ2 /df≤3	3≤χ2 /df≤5	Perfect Fit
RMSEA	0,085	0,061	0,00≤RMSEA≤ 0,05	RMSEA ≤ .08	Acceptable Fit
GFI	0,918	0,951	0,90 ≤ GFI	0,85 ≤ GFI	Perfect Fit
CFI	0,900	0,982	0,95≤CFI≤1,00	0,85≤CFI	Perfect Fit
NFI	0,862	0,967	0,95≤NFI≤1,00	0,80≤NFI≤0,95	Perfect Fit

The CFA results in Table 4 were compared with the reference ranges of the fit indices provided by Simon et al. (2010) and Hooper et al. (2008). This comparison supports the validity of the item-structure relationship in the SOCSS, which consists of three dimensions and 12 items. No changes were made to the items in the scale form. Furthermore, all evidence indicates that the construct was successfully validated for every individual item and dimension of the scale. Figure 1 displays the distribution of the item loadings on the factors resulting from the confirmatory factor analysis (CFA) conducted after making improvements to the model.

Figure 1. SOCSS confirmatory factor analysis (CFA) diagram



Reliability Findings

The reliability of the Selection, Optimization and Compensation Scale was tested by means of Cronbach's alpha coefficient and Composite reliability values. The calculated Cronbach's alpha coefficient of the three-dimensional scale was found to be 0.86. The Cronbach's alpha coefficients for the sub-dimensions are 0.79 for the " selection" sub-dimension, 0.78 for the " optimization" sub-dimension and 0.76 for the "compensation" sub-dimension. A Cronbach's alpha reliability coefficient between 0.60 and 0.80 indicates that the scale is "moderately reliable", and a coefficient between 0.80 and 1.00 indicates that the scale is "highly reliable" (Kayış, 2009; Kılıç, 2016). The reliability coefficient calculated for the whole scale was between 0.68 and 0.78, indicating that the scale is highly reliable. Internal consistency coefficients for the whole scale and its sub-dimensions are presented in Table 5.

Table 5. SOCSS Cronbach Alpha and Composite Reliability (CR) Values

SOCSS Dimensions	Cronbac's Alpha	Composite Reliability
Selection	,790	0,751

Optimization	,783	0,814
Compensation	,766	0,745
Total Scale	,860	0,902

Reliability analyses in multi-factor constructs may be limited by the assumption of unifactoriality in Cronbach's alpha. Hence, it is advisable to compute the CR as a substitute. The CR value quantifies the degree of consistency with which all items on the scale measure a single overarching factor. Typically, the CR value is anticipated to exceed 0.70, according to Fornell and Larcker's research in 1981. This value indicates the scale's reliability as a measurement tool. The calculated CR value for the SOC Form is 0.902, as shown in Table 5. This value indicates the reliability of the scale, affirming its usefulness as a reliable instrument for assessing employees' adherence to the processes proposed by the SOC model. Table 6. displays the Pearson correlation coefficients among the sub-dimensions of the scale. When conducting a scale adaptation study, it is crucial to examine the correlation values among the sub-dimensions. This analysis helps assess the scale's structural validity, the distinct attributes measured by each sub-dimension, the scale's reliability, and the interpretation of the sub-dimensions (Lamm, 2020). The analyses indicate a strong and statistically significant correlation between the sub-dimensions of the SOCSS.

Tablo 6. Pearson Correlation (r) Coefficients between SOCSS Subscales

SOCSS Dimensions	Optimization	Compensation	Selection
Optimization	1	,631**	,533**
Compensation	,631**	1	,408**
Selection	,533**	,408	1

**. p< 0.01

Results, Conclusions and Recommendations

Understanding how teachers effectively manage their gains and losses is crucial for maintaining professional functionality throughout the lifelong learning process. The objective of this study is to translate and modify the "Selection, Optimization, and Compensation Questionnaire-SOCQ," originally adapted for the context of work by Zacher and Frese (2011), into the Turkish language. In order to achieve this objective, the researchers analyzed the model fit, CFA, and item fit indices of the Turkish version of the scale. We assessed the validity of the scale through language validity, face validity, content validity, and construct validity. In addition, we examined the scale's reliability using the Cronbach alpha coefficient and composite reliability coefficient. The research commenced by translating the scale into Turkish, followed by a backtranslation to ensure linguistic validity. Additionally, expert opinions were sought. To ensure content validity, a preliminary application was conducted with teachers from various educational levels, and the scale was subsequently finalized. Data was collected from 299 teachers in various school types using the Turkish version of the scale. The validity study of the scale conducted a confirmatory factor analysis, which confirmed the original four-dimensional and 12-item structure without any modifications to the scale form (Zacher et al., 2015).

As a result of the examination of the modification values, it was seen that ChiSq/df (2.105), GFI (0.951), CFI (0.982) and NFI (0.967) values showed excellent fit and RMSEA (0.061) value was within an acceptable reference range (Simon et al., 2010; Hooper et al., 2008). The correlation coefficients of the scale indicated a statistically significant positive relationship between the sub-dimensions. Overall, the evaluation of the validity and reliability analyses in the process of adapting the SOCSS scale shows that the scale possesses adequate psychometric qualities and serves as a dependable tool for collecting data on teachers' utilization of SOC strategies in Turkey. Therefore, SOCSS can be utilized in research on the SOC strategies employed by educators in their professional lives and the factors that may be linked to lifelong learning endeavors. Zacher and Frese (2011) have established that actively employing SOC strategies enables employees to establish goals and effectively adjust to the growing demands of their job in the future. A valid and reliable measurement instrument that specifically examines strategies related to social and emotional competence (SOC) can provide valuable insights into how teachers can effectively navigate the challenges and opportunities they encounter in their professional lives (Robson et al., 2006).

In addition, SOCSS can contribute to the growing research literature on the SOC model by enabling teachers to understand how teachers use the SOC model in their lifelong learning processes by investigating the interaction between increasing workload and changes (introduction of technology into classrooms, cultural differences in classrooms, changing curriculum, etc.) and the use of SOC strategies (Riediger et al., 2006). Although there are findings on the positive effects of using SOC strategies in working life (Abraham & Hansson, 1995; Bajor & Baltes, 2003; Baltes & Heydens-Gahir, 2003; Wiese et al., 2000, 2002), it is not known which strategies teachers apply. In addition, knowing the role of SOC strategies in teachers' retention and active professional lives may contribute to the professional policies to be developed. It is also necessary to look at the issue from the perspective of organisations and leaders. Conservation of resources follows a parallel process with lifelong learning. Knowing the efforts and preferences of employees to stay in the profession can pave the way for providing them with opportunities to support lifelong learning. As a matter of fact investing in the improvement of employees' working skills through formal and non-formal education is crucial for both employers and employees. This investment not only enhances the flexibility, creativity, and productivity of employees, but also enables businesses to confront the challenges of competition in their respective fields (Beqiri & Mazreku, 2020). The individual performance of the employees is also reflected in the organisational performance, therefore, the productivity and effectiveness of the organisation increases in direct proportion to the level of success of the employees when they perform the tasks appropriate to their qualifications and skill levels and when they work in line with their capacities by seeing alternatives (Argon & Taşkın, 2023).

There are some limitations of this study that should be discussed. Firstly, the data only come from a self-reported five-point Likert-type response scale ("1" not valid at all—"5" " completely valid). Using situational interviews to gather qualitative data to support these quantitative data may improve our understanding of the scale's validity. Zacher and Frese (2011) found a high agreement between the self-report response scale and external observers' ratings in their original scale adaptation study, but they recommend replicating the current findings for more objective measurements (Grebner et al., 2004). Another limitation of the study is that the sample selected from Çekmeköy district of Istanbul province consists of participants with middle and upper levels of education and income. This situation may affect teachers' perceptions of SEIT strategies. Therefore, applying the scale in different cultural contexts may provide more meaningful findings in terms of reliability. Finally, teachers' professional skill levels, experiences, and professional development needs vary. It may be important to take these differences into consideration when administering the adapted SOCSS for teachers in order to accurately reflect the implementation of SOC strategies (Meng et al., 2021).

Despite these limitations, a teacher-adapted SOCSS can help us comprehend how teachers' knowledge, skills (Frese, 1982), age (Young et al., 2007), school type, seniority (Riediger et al., 2006), and environmental resources (Farr et al., 1998) interact with their SOC strategies in response to rapid changes in the education field, growing workload, curriculum changes, and potential impacts on teachers in the future.

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