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Educational Outcome Expectations Scale: A Scale Development Study in a Sample of High School Students

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ABSTRACT

This study was carried out to develop an "Educational Outcome Expectations Scale" that aims to measure the outcome expectations of high school students from the education they receive or will receive regarding their career development, career decision-making processes, and academic/vocational goals. The data of the study were collected from two different study groups involving students from 9th to 12th grades in two stages for explanatory and confirmatory factor analysis. A two-factor and 11-item structure was obtained as a result of the explanatory factor analysis, and it was found that the two-factor structure was confirmed as a result of the confirmatory factor analysis. In addition, a similar scale validity study was conducted within the scope of the validity studies of the research, and it was determined that the coefficients obtained as a result of the study were within acceptable limits. Cronbach's alpha internal consistency coefficients calculated for the reliability study of the scale were found between .81 and .87, and the test-retest reliability coefficients were between .65 and .79. All the findings obtained from the studies and analyzes on the development of the educational outcome expectation scale reveal that the scale developed for high school students, consisting of two factors and 11 items, is valid and reliable.

Keywords: Educational outcome expectations, career outcome expectations, high school students, scale development, social cognitive career theory

Eğitsel Sonuç Beklentisi Ölçeği: Lise Öğrencileri Örnekleminde Bir Ölçek Geliştirme Çalışması

Bilgi

#Bu çalışma doktora tezinin bir parçasıdır.

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ÖZ

Bu çalışmanın amacı lise öğrencilerinin, aldıkları ya da alacakları eğitimden, kariyer gelişimleri, kariyer karar süreçleri ve akademik/mesleki hedeflerine yönelik sonuç beklentilerini ölçmeyi hedefleyen bir 'Eğitsel Sonuç Beklentisi Ölçeği' nin geliştirilmesidir. Araştırmanın verileri açıklayıcı ve doğrulayıcı faktör analizi için iki aşamada ve 9-10-11 ve 12. sınıf düzeylerinde öğrenim gören iki farklı çalışma grubundan elde edilmiştir. Açıklayıcı faktör analizi sonucunda elde edilen iki faktör ve 11 maddeden oluşan bir yapının, doğrulayıcı faktör analizi verileri ile doğrulandığını görülmüştür. Araştırmanın geçerlik çalışmaları kapsamında ayrıca benzer ölçek geçerliği çalışması yapılmış ve çalışma sonucunda elde edilen katsayıların kabul edilebilir sınırlar içerisinde olduğu ortaya konulmuştur. Ölçeğin güvenirlik çalışması kapsamında hesaplanan Cronbach Alfa iç tutarlık katsayılarının .81 ile .87 arasında olduğu görülürken, test-tekrar-test güvenirlik katsayılarının ise .65 ile .79 arasında olduğu görülmüştür. Eğitsel sonuç beklentisi ölçeğinin geliştirilmesine yönelik yapılan çalışma ve analizlerden elde edilen tüm bulgular, lise öğrencilerine yönelik geliştirilen, iki faktör ve 11 maddeden oluşan ölçeğin geçerli ve güvenilir olduğunu ortaya koymaktadır.

Anahtar Kelimeler: Eğitsel sonuç beklentisi, kariyer sonuç beklentisi, lise öğrencileri, ölçek geliştirme, sosyal bilişsel kariyer teorisi

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Introduction

In the social cognitive career theory based on the general social cognitive theory of Bandura (1986), interrelated processes about how career and academic interests develop, how career choices are made and implemented, and how performance results are achieved are of significance (Patton & McMahon, 2014). Social cognitive career theory focuses on three cognitive variables that make up the core of the social cognitive approach and are argued to be important in career development. These are self-efficacy (belief), outcome expectations, and personal goals (Lent et al., 1994).

Self-efficacy refers to one's belief in their capacity to successfully fulfill a given task or an expected behavior (Bandura, 1977). While personal goals are defined as the intention of a person to participate in a certain activity or to achieve a result, outcome expectation is defined as a person's prediction about the outcome of a behavior that they exhibit (Bandura, 1986). The concept of outcome expectation is one of the cognitive variables thought to be important for career development in social cognitive career theory and refers to personal beliefs about the outcomes of performing a particular behavior. In other words, outcome expectation is related to anticipations about the outcomes of a behavior to be displayed (Lent, 2013).

Bandura (1997) evaluates outcome expectations in three different categories, stating that positive results in all areas can be encouraging and that negative results may constitute an obstacle to continue this behavior. The first category includes expectations of positive or negative physical outcomes that follow behaviors involving an individual's physical activities. Social responses are in the second category of outcome expectations. Positive social responses include affirmation, recognition, power, and rewards, whereas negative social responses include rejection, loneliness, feelings of shame, deprivation, and punishment. The third outcome expectation is positive or negative self-evaluation (internal evaluation) of actions that may include personal satisfaction or self-criticism.

Social cognitive career theory highlights outcome expectations as an important personal characteristic that affects career development and discusses this concept in terms of expectations about the results of career-related behaviors in the career field (Lent et al., 1994). Within the framework of social cognitive career theory, Betz and Voyten (1997) define outcome expectations as an individual's beliefs about the outcomes of certain educational or career decision-making behaviors by evaluating them under the heading of career outcome expectations. According to social cognitive career theory, low outcome expectations can prevent individuals from pursuing a certain career field, even if they have high selfefficacy. Outcome expectations along with indirect learning experiences, performance, social persuasion, and contextual factors (social support, etc.) play an important role in predicting professional interests and choices (Lent, 2013).

Outcome expectations can be specific to the results of academic performance (if I get good grades, I can have the career I want) or career choice and planning (if I can learn more about different career fields, I can make better career decisions). Outcome expectations such as self-efficacy are considered to be of critical importance for career interest and career choice. However, self-efficacy and outcome expectations are handled separately here, because performances that are believed to be correct may not always lead to the expected outcomes (Betz & Voyten, 1997).

In the literature, studies, which use a correlational design, related to outcome expectations variable in the field of career development have been found to focus on high school (Ali, Mcwhirter, and Chronister, 2005; Brown and Cinamon, 2016; Conkel-Ziebell, 2010; Gushue, 2006; Gushue and Whitson, 2006; Herrmann, 2010) and university students (Adachi, 2004; Domene, 2012; Franco et al., 2019; Işık, 2013; Ma and Shea, 2019; Monsalve et al., 2016; Sarı, 2018; Sarı et al., 2017; Yılmaz et al., Atli, 2020) under career/vocational outcome expectations titles. In addition, there are experimental studies testing the effectiveness of career intervention programs to improve outcome expectations (Eşkisu et al., 2020; Garcia, 2018; Guillen, 2007; Işık, 2010; McWhirter et al., 2000; Uzun, 2019; Şeker, 2020).

Considering studies aiming to develop an outcome expectations scale specific to the targeted behavior domain for outcome expectations, there are some remarkable scale development studies, such as the Vocational Outcome Expectations Scale developed by McWhirter et al. (2000), the Career Decision Outcome Expectations Scale developed by Guillen (2007), the Career Exploration Outcome Expectations Scale developed by Oliveira et al. (2016), and the scale development studies carried out by Betz and Voyten (1997), which aimed to measure career outcome expectations.

When the outcome expectations specific to the targeted behavior areas are evaluated, it can be seen that one of the outcome expectation areas that are not taken into account is the educational outcome expectations. Educational outcome expectations express expectations of the individual to achieve certain outcomes as a result of completing a certain educational level (Springer et al., 2001). Outcome expectations are examined in the field of education similar to the field of behavior. These areas may include areas of outcome expectations such as mathematics or science, as well as academic subject areas specific to the targeted behavior area. However, among studies on outcome expectations in the field of education, areas, such as career choice and career, decision have been ignored (Tilley, 2005).

According to the related literature, the number of studies on educational outcome expectations is limited. One of these rare studies involves the "Educational Outcome Expectations Scale" which was developed by Springer et al. (2001) for university students and revised

by Tilley (2005). In addition, it has been found that there are no scale development studies on outcome expectations in Turkey, but that there are scale adaptation studies (Büyükgöze Kavas, 2011; Işık, 2010; Sarı & Camadan, 2019). These adaptation studies were conducted on samples involving university students.

Considering existing studies in the related literature in general, scale development studies aiming to measure outcome expectations in high school samples are limited. High school period is a difficult and painful process in terms of career development as well as identity development of adolescents due to career development tasks and expectations for fulfilling these duties (Yeşilyaprak, 2013). When students enter high school, they are faced with tasks such as determining their vocational choices and clarifying their career choices (Niles ve Harris-Bowlsbey, 2017). It can be said that educational outcome expectations are a variable that needs to be taken into account and includes beliefs about the consequences of both academic and career development behaviors. For this reason, it is thought that it is important to reveal outcome expectations about career development, career decision-making processes, and academic/vocational goals from the education that the adolescent has received or will receive during high school, which is an important stage for career development. Accordingly, this study aimed to develop a scale for the educational outcome expectations of high school students based on their career development and vocational/educational decision-making processes.

Method

Study group

In the process of developing the educational outcome expectations scale, the data were collected from three different study groups in three stages for explanatory and confirmatory factor analyses and a convergent validity study. In the first stage that involved the explanatory factor analysis, data were collected from 545 9th to 12th-grade students from different secondary schools located in the center of Niğde Province center under the permissions obtained from the relevant institutions. Descriptive characteristics of the group that data were collected from are presented in Table 1.

As seen in Table 1, 47% of the explanatory factor analysis study group were female (254), and 53% were male (291). Twenty-four percent of the students were in the 9th grade (135), twenty-one percent in the 10th grade (115), twenty percent in the 11th grade (105), and thirty-five percent in the 12th grade (190).

In the second step, data were collected from 324 students from 9th to 12th grades for confirmatory factor analysis. Descriptive characteristics of the group that data were collected from are presented in Table 2.

As seen in Table 2, 56% of the confirmatory factor analysis group consisted of female students (181), while 44% of them were male students (143). Of these students, 29% were 9th graders (94), 25% were 10th graders (81),

24% were 11^{th} graders (79), and 22% were 12^{th} graders (70).

In the final stage, data were collected from 225 9th to 12th-grade students for a similar scale validity study. While 60% of the group consisted of female students (136), 40% were male students (89). Also, 28% of the students were 9th graders (63), 30% were 10th graders (67), 25% were 11th graders (57), and 17% were 12th graders.

Table 1. Descriptive characteristics of the explanatory factor analysis study group

Gender	N	%
Female	254	47
Male	291	53
Grade	N	%
9 th grade	135	24
10 th grade	115	21
11 th grade	105	20
12 th grade	190	35
Total	545	100

Table 2. Descriptive characteristics of the confirmatory factor analysis study group

Gender	N	%
Female	181	56
Male	143	44
Grade	N	%
9 th grade	94	29
10 th grade	81	25
11 th grade	79	24
12 th grade	70	22
Total	324	100

Data Collection Tools

This section the "Career Decision Self-Efficacy Scale-Short Form" which was selected for convergent validity and presents information about the development steps of the "Educational Outcome Expectations Scale" strong efficacy expectations often accompany outcome expectations. Because only behaviors that are believed to be achievable are initiated and efforts are made to finalize (Bandura, 1986). Therefore, Career Decision Self-Efficacy Scale-Short Form was preferred for convergent validity study.

Educational Outcome Expectations Scale

The educational outcome expectations scale was developed to obtain data about the outcome expectations of high school students from the education they received or would receive regarding career development, academic/vocational decisions, and goals.

During the scale development process, the steps suggested by DeVellis (2016) were followed, and first of all, procedures to determine the construct to be measured and to create an item pool were carried out. To do this, the procedures were planned to develop the 'Educational Outcome Expectations Scale' based on the social cognitive career theory developed by Lent, Brown, and Hackett (1994) based on the social cognitive theory of

Bandura. Also, scale development studies in the literature on outcome expectations (Betz & Voyten, 1997; Guillen, 2007; Lent et al., 2005; McWhirter et al., 2000; Oliveira et al., 2016; Tilley, 2005) were reviewed. In the next stage, a focus group interview was held with two different student groups including eight students of 9th to 12th-grade levels. In the focus group interview, the students were asked about their expectations about the career decision-making and career choice process from the education that they received and would receive at school. Students' views were analyzed, and they were found to gather under the following themes: "academic achievement, success in exams, determining educational and vocational goals, job opportunities, recognizing interests and skills, and obtaining information about jobs".

After these stages, a 30-item pool, aiming to measure educational outcome expectations, was created, and then the scaling type was determined. In this context, a five-point Likert-type scale with options ranging from "totally disagree" to "totally agree " was preferred for the educational outcome expectations scale.

The 30 items in the item pool were submitted to the expert group consisting of field experts, measurement experts and language experts and expert opinion was obtained. Necessary corrections were made in terms of meaning, expression and sentence structure in line with the opinions of field, measurement, and language experts in different fields.

Finally, the 30 items in the item pool were transformed into a trial form for a pilot study. The trial form was administered to a group of 36 students to check the intelligibility of the items. During the implementation process, items that presented difficulty in terms of understanding were revised based on the feedback from the students, and the trial form was finalized. The finalized trial form was administered to the determined study group to conduct the construct validity study of the scale. Information on the construct validity of the scale and similar scale validity and reliability analyses are given in the findings section.

Career Decision Self-Efficacy Scale-Short Form

The Career Decision Self-Efficacy Scale-Short Form (CDSES-SF) was developed by Betz, Klein, and Taylor (1996) and adapted to Turkish by Işık (2010). It is used to determine the perceived self-efficacy of university students about the tasks they need to fulfill in their career decision-making process. The scale consists of five subdimensions and a total of 25 items. When responding to the scale, participants choose among five-point rating options ranging between "no confidence at all (1)" and "complete confidence (5)" to indicate how confident they are in performing the stated tasks. A total score can be obtained from the scale. High scores indicate a high level of career decision-making self-efficacy. In the process of adapting the scale to a sample of Turkish university students, Cronbach's alpha calculation method was used to calculate the internal consistency coefficient, and the test-retest method was employed to calculate the stability coefficient. Accordingly, Cronbach's alpha and the stability coefficients were found as .88 and .81, respectively. Within the scope of the doctoral dissertation study conducted by Şeker (2020), the psychometric properties of the scale were studied in a high school sample, and it was revealed that the 25-item, five-factor structure was consistent with the sample. Cronbach's alpha (α) internal consistency coefficient in the high school sample of the scale was calculated as .92.

Data Analysis

SPSS 24.0 and Amos statistics package programs were used in the analysis of the data. Explanatory and confirmatory factor analyses were employed to obtain findings on the construct validity of the scale. Before starting the construct validity analysis, the normality of the data to provide linearity assumption and multicollinearity problem were examined (Hair et al., 2013; Tabachnick & Fidell, 2012). As a result of these examinations, it was observed that the data provided a univariate normal distribution but did not provide a multivariate normal distribution. Also, it was observed that the data showed a linear relationship and that there were no multicollinearity problems. Accordingly, the Principal Axis Factoring factor extraction technique was used. While applying the Explanatory Factor Analysis, the oblique (Promax) rotation technique was used, assuming there was a correlation between the factors.

Findings

In this section, findings obtained from explanatory and confirmatory factor analysis and convergent validity and reliability analyses are included.

Findings on Explanatory Factor Analysis

The trial form of the scale was administered to 545 students from 9th to 12th grades for explanatory factor analysis. Before the analysis, Kaiser-Meyer Olkin (KMO) and Bartlett Sphericity tests were performed on the data to determine the fit of the data obtained from the study group for factor analysis. It is stated that the KMO value should be \geq .60 (Tabachnick & Fidell, 2012) and Bartlett's Sphericity test results should be significant (Ho, 2014). In this study, the KMO value was found to be .93 and this value was found to be highly appropriate for factor analysis. Also, the value obtained as a result of the Barlett Sphericity Test was significant ($\chi 2$ (55, N = 545) = 2730,132, p < 0.01). In line with these findings, it was decided that the data set was appropriate for exploratory factor analysis.

Eigenvalues were examined to determine the factors obtained as a result of the analysis. It is recommended that factors with an eigenvalue of >1 should be regarded as a factor (Büyüköztürk, 2014). For the educational outcome expectations scale, two factors with eigenvalues of >1 emerged. Eigenvalue data of the scale are presented in Table-3.

In explanatory factor analysis, item factor loads should be at least .40 (Stevens, 2009) and the difference between the load values of the items within their factor and the load values in other factors should be ≥.10 (Tavşancıl, 2010). Nineteen items that did not meet these conditions were removed from the scale, and therefore 11 items remained on the scale. The factor loadings of the items in the factors, the standard errors for the factor loads, and the z scores are given in Table 3 according to the item numbers on the trial form. The two factors explained 52.62% of the variance. After examining the contents of the items according to the factor they belonged to, the factors were named as "career-oriented educational expectations" "academic-oriented outcome and educational outcome expectations".

Findings on Confirmatory Factor Analysis

A confirmatory factor analysis (CFA) was performed to test the 2-factor and 11-item structure obtained as a result of the explanatory factor analysis. For the confirmatory factor analysis, a different study group was selected, and the 11-item scale form was arranged and administered to 324 9th to 12th-grade students.

In the confirmatory factor analysis model fit coefficients, an X²/sd value of less than 2 shows a perfect fit, while a value between 2 and 3 shows acceptable fit (Schermelleh-Engel, et al., 2003). For CFI and TLI indices, a value of .90 indicates acceptable fit and .95 indicates good fit (Byrne, 2010). For the RMSEA index, a value of .08 means acceptable fit, and values of ≤.05 are considered as perfect fit criteria (Schumacker & Lomax, 2010). For the SRMR, values of >.08 are accepted to show good fit (Hu & Bentler, 1999, as cited in Çokluk et al., 2016). When the general model fit coefficients obtained for the confirmatory factor analysis of the educational outcome expectations scale in Table 4 are examined, it can be seen that the model fit coefficients are at a satisfactory level in terms of the presented indices. The measurement model is given in Figure-1.

Factor loads (standardized structure coefficients) obtained as a result of the confirmatory factor analysis, standard errors regarding factor loads, and Z scores were examined, and the values obtained were arranged in accordance with the final form of the scale. These values are presented in Table 5.

Table 3. Factor structure and factor loads of the educational outcome expectations scale

ltome	Factor loads			
Items	Career	Academic		
Item 21	.80			
Item 11	.70			
Item 10	.70			
Item 9	.69			
Item 18	.62			
Item 8	.59			
Item 22	.56			
Item 2		.82		
Item 1		.80		
Item 4		.78		
Item 14		.52		
Eigenvalues	5.55	1.13		
% of Variance	46.25	6.37		
% of Total Variance	46.25	52.62		

Table 4. The CFA goodness of fit coefficients for the educational outcome expectations scale

X^2	Sd	X^2/sd	p	CFI	TLI	SRMR	RMSEA (%90 GA)
64.03	43	1.49	.02	.98	.97	.04	.04 (.0206)

Table 5. Factor loads (construct coefficients), standard errors, and Z scores for the educational outcome expectations scale*

Academic-oriented educational outcome expectations	λ	Sh	Z
Item 1	.67	.05	14.19
Item 2	.73	.04	18.29
Item 3	.64	.05	12.52
Item 4	.72	.05	15,12
Career-oriented educational outcome expectations	λ	Sh	Z
Item 5	.70	.03	18.20
Item 6	.66	.04	15.65
Item 7	.64	.04	16.19
Item 8	.69	.04	16.82
Item 9	.71	.03	19.06
Item 10	.56	.05	11.73
Item 11	.59	.05	12.02

^{*} Scale items are included in the appendix.

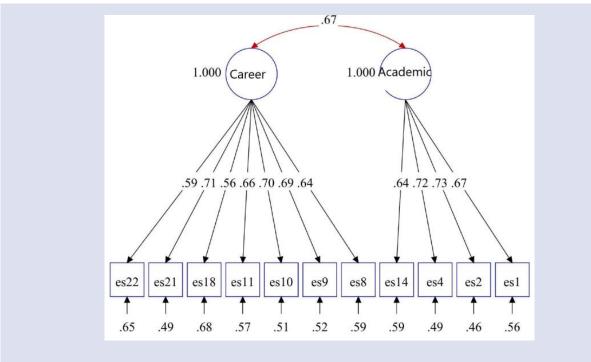


Figure 1. Measurement model for confirmatory factor analysis

Table 6. Convergent validity results for educational outcome expectations scale

	1	2	3	4
1- Academic-oriented educational outcome expectations	1			
2- Career-oriented educational outcome expectations	.50**	1		
3- Total score for educational outcome expectations	.78**	.93**	1	
4- The career decision self-efficacy scale	.54**	.68**	.71**	1

Findings on convergent validity

A convergent validity method was used in the next stage within the scope of the validity studies of the educational outcome expectations scale. For the convergent validity study, the Career Decision Self-Efficacy Scale-Short Form (CDSES-SF), which was developed by Betz et al. (1996) and adapted to Turkish by Işık (2010), was used. For the similar scale validity study, the scales were administered to 225 high school students from different grade levels. The analysis results of the data obtained as a result of the implementation are presented in Table 6.

A significant positive relationship was found between the career decision self-efficacy scale scores and the scores obtained from the academic-oriented educational outcome expectation dimension (r = .54, p <.01), the career-oriented educational outcome expectation dimension (r = .68, p <.01), and the overall educational outcome expectations scale (r = .71, p <.01). It can be said that the data obtained as a result of the analyses performed were within acceptable limits for the similar scale validity of the educational outcome expectations scale.

Findings regarding the reliability analysis

The reliability of the measurements obtained from the educational outcome expectations scale was calculated with the internal consistency reliability coefficient

(Cronbach's alpha) and test-retest reliability methods. The results are given in Table 7.

As seen in Table 7, the internal consistency reliability coefficient was found to be .81 for the academic-oriented educational outcome expectations dimension of the scale, and .85 for the career-focused educational outcome expectation dimension. The internal consistency reliability coefficient for the overall scale score was calculated as .87. According to the results of the test-retest reliability analysis obtained as a result of the administration of the scale with a three-week interval, the coefficients obtained were .65 for the academic-oriented educational outcome expectation dimension, .78 for the career-oriented educational outcome expectation dimension, and .79 for the overall scale score. The findings obtained showed that the reliability values of the scale were within acceptable limits

The findings obtained from the analyses conducted for the development of the educational outcome expectations scale show that the scale, which was developed for high school students and consisted of two factors and 11 items, is valid and reliable. With this finding, it can be said that a valid and reliable measurement tool that aims to measure the educational outcome expectations of high school students regarding career development, career decision-making and educational-academic goals has been introduced to the literature.

Discussion and Conclusions

This study aimed to develop an educational outcome expectations scale that aims to reveal outcome expectations of high school students about their career developments, career decision-making processes, and academic/vocational goals from the education they received. In this regard, the steps suggested by DeVellis (2016) that should be considered in the scale development process were followed. In this context, first, a literature review was conducted to determine the structure to be measured and to create an item pool. Then, a 30-item pool was created, and the items were submitted to the opinions of experts involving field, measurement, and language experts through an expert opinion form. Necessary corrections were made on the items in line with the expert opinions, and the 30 items in the item pool were transformed into a trial form to be applied to a determined study group for explanatory factor analysis. A five-point Likert-type grading system was used to respond to the items on the scale with options ranging between "totally disagree (1)" and "totally agree (5)".

As a result of the explanatory factor analysis, a 2-factor and 11-item structure was obtained. To test the structure obtained, the 11-item form was administered to a different study group to conduct a confirmatory factor analysis. It was observed that the fit indices obtained as a result of the confirmatory factor analysis were found to be within acceptable limits and that the 2-factor and 11-item structure was confirmed. For the similar scale validity study, the Career Decision Self-Efficacy Scale-Short Form was used, and it was observed that the correlation coefficients obtained were at an acceptable level. The internal consistency reliability coefficient (Cronbach's Alpha) and test-retest reliability methods were used for the reliability analysis of the scale, and the results obtained revealed that the reliability values were within acceptable limits. The steps followed and the analysis conducted during the scale development process show that the Educational Outcome Expectations Scale, which consisted of 2 factors and 11 items, is a valid and reliable measurement tool.

In the literature, there are scales developed for vocational outcome expectations (McWhirter et al., 2000), academic outcome expectations (Lent et al., 2005), career decision outcome expectations (Guillen, 2007), career exploration outcome expectations (Oliveira et al., 2016), and career outcome expectations (Betz and Voyten, 1997), whereas there is a single scale development study on measuring educational outcome expectations of university students (Springer et al., 2001) and a study on the revision of this scale (Tilley, 2005). In our country, there are some scale adaptation studies on outcome expectations (Büyükgöze Kavas, 2011; Işık, 2010; Sarı & Camadan, 2019).

With the present study, a valid and reliable scale, which aims to reveal high school students' expectations about their career developments, career decision processes, and academic/vocational goals from the education they received and to collect data from students about their academic/career-oriented educational outcome expectations, was introduced to the literature. This scale, which was developed to determine the educational outcome expectations of high school students, is important in terms of the related literature when considering the limitations of scale development studies on outcome expectations. In addition, it is thought that this scale will be useful for school psychological counselors, field experts, and researchers who aim to collect data on educational outcome expectations for the career development of high school students.

Ethics

In this study, scientific, ethical and citation rules were followed; It has been committed by the responsible author that no falsification has been made on the collected data, that "Cumhuriyet International Journal of Education and Editor" has no responsibility for all ethical violations that may be encountered, and that all responsibility belongs to the Corresponding Author.

Table 7. Reliability analysis results of the educational outcome expectations scale

	Internal consistency (α)	Test -retest (r)
1- Academic-oriented educational outcome expectat	ions .81	.65
2- Career-oriented educational outcome expectation	s .85	.78
3- Overall educational outcome expectations scale so	core .87	.79

References

Adachi, T. (2004). Career self-efficacy, career outcome expectations and vocational interests among Japanese university students. *Psychological Reports*, *95*(1), 89-100.

Ali, S. R., McWhirter, E. H., & Chronister, K. M. (2005). Self-efficacy and vocational outcome expectations for adolescents of lower socioeconomic status: A pilot study. *Journal of Career Assessment*, 13(1), 40-58. https://doi.org/10.1177/1069072704270273

Bandura, A. (1977). Self-efficacy: toward a unifying theory of behavioral change. *Psychological Review*, 84(2), 191-215

Bandura, A. (1986). Social Foundations of Thought and Action: A Social Cognitive Theory. Englewood Cliffs, NJ: Prentice&Hall. Bandura, A., (1997). Self-Efficacy: The Exercise of Control. New York: Freeman.

Betz, N. E., Klein, K. L., & Taylor, K. M. (1996). Evaluation of a short form of the career decision-making self-efficacy scale. *Journal of Career Assessment*, 4(1), 47-57. https://doi.org/10.1177/106907279600400103

Betz, N., & Voyten, K. K. (1997). Efficacy and outcome expectation influence career exploration. *Career Development Quarterly*, 46, 197-189

- Brown, D., & Cinamon, R. G. (2016). Personality traits' effects on self-efficacy and outcome expectations for high school major choice. *International Journal for Educational and Vocational Guidance*, 16(3), 343-361. https://doi.org/10.1007/s10775-015-9316-4
- Büyükgöze-Kavas, A. (2011). Testing a model of career indecision among university students based on social cognitive career theory. (Yayımlanmamış Doktora Tezi). Orta Doğu Teknik Üniversitesi, Sosyal Bilimler Enstitüsü, Ankara.
- Büyüköztürk, Ş. (2014). Sosyal bilimler için veri analizi el kitabı: İstatistik, araştırma deseni, SPSS uygulamaları ve yorum (Genişletilmiş 19. Baskı). Ankara: Pegem Yayınları
- Byrne, B. M. (2010). Structural equation modeling with AMOS: Basic concepts, applications, adn programming. Routledge. Taylor & Francis Group.
- Conkel-Ziebell, J. L. (2010). Promoting viable career choice goals through career decision-making self-efficacy and career maturity in inner-city high school students: A test of social cognitive career theory. Unpublished doctoral dissertation (Order No. 3422537). Erişim adresi: https://search.proquest.com/docview/756234851?accountid=16645
- Çokluk, Ö., Şekercioğlu, G. ve Büyüköztürk, Ş. (2016). Sosyal bilimler için çok değişkenli istatistik: SPSS ve LISREL uygulamaları (4. Baskı). Ankara: Pegem Akademi.
- DeVellis, R. F. (2016). Scale development: Theory and applications (4th ed.). Los Angeles, CA: Sage Publications.
- Domene, J. F. (2012). Calling and career outcome expectations: The mediating role of self-efficacy. *Journal of Career Assessment*, 20(3), 281-292 https://doi.org/10.1177/1069072711434413
- Eşkisu, M., Haspolat N.M. & Ağırkan, M. (2020). Psikolojik danışman adaylarının kariyer kararı yetkinlik ve mesleki sonuç beklentilerinin geliştirilmesi. *OPUS–Uluslararası Toplum Araştırmaları Dergisi*, 16(31), 4186-4209. DOI: 10.26466/opus.720708
- Franco, M., Hsiao, Y. S., Gnilka, P. B., & Ashby, J. S. (2019). Acculturative stress, social support, and career outcome expectations among international students. *International Journal for Educational and Vocational Guidance*, 19(2), 275-291. https://doi.org/10.1007/s10775-018-9380-7
- Garcia, E. A. (2018). Career information system utilization and high school students' vocational skills self-efficacy, outcome expectations, work hope, career planning, and career decision-making difficulties. Unpublished doctoral dissertation (Order No. 10682971). Available from ProQuest Dissertations & Theses Global. (2138913979). Erişim adresi: https://search.proquest.com/docview/2138913979?accoun tid=16645
- Guillen, A. L. (2007). Effectiveness of an outcome expectation intervention for college students. Unpublished doctoral dissertation (Order No. 3279083). Available from ProQuest Dissertations & Theses Global. (304780250). Erişim adresi: https://search.proquest.com/docview/304780250?accounti d=16645
- Gushue, G. V. (2006). The relationship of ethnic identity, career decision-making self-efficacy and outcome expectations among Latino/a high school students. *Journal of Vocational Behavior*, *68*(1), 85-95. https://doi.org/10.1016/j.jvb.2005.03.002
- Gushue, G. V., & Whitson, M. L. (2006). The relationship among support, ethnic identity, career decision self-efficacy, and outcome expectations in African American high school students: Applying social cognitive career theory. *Journal of Career Development*, 33(2), 112-124. https://doi.org/ 10.1177/0894845306293416

- Hair, J. F., Black, W. C., Babin, B. J., & Anderson, R. E. (2013). Multivariate data analysis: Pearson new international edition (7th ed.). London, UK: Pearson.
- Herrmann, M. A. K. C. (2010). A test of the social cognitive career theory to predict career interests and goal setting among multi-ethnic, low SES adjudicated adolescents. Unpublished doctoral dissertation (Order No. 3434267). Available from ProQuest Dissertations & Theses Global. Erişim adresi: https://search.proquest.com/docview/845878537?accounti d=16645
- Işık, E. (2010). Sosyal bilişsel kariyer teorisi temelli bir grup müdahalesinin üniversite öğrencilerinin kariyer kararı yetkinlik ve mesleki sonuç beklenti düzeylerine etkisi. (Yayımlanmamış doktora tezi). Çukurova Üniversitesi Eğitim Bilimleri Enstitüsü, Adana.
- lşık, E. (2013). Mesleki sonuç beklentisinin yordayıcıları olarak algılanan sosyal destek ve denetim odağı. *Kuram ve Uygulamada Eğitim Bilimleri, 13*(3), 1419-1430.
- Lent, R. W. (2013). A social cognitive view of career development and counseling. In S. D. Brown & R. W. Lent (Eds.) *Career development and counseling: Putting theory and research to work, 2,* 115-146. John Wiley & Sons
- Lent, R. W., Brown, S. D. & Hackett, G. (1994). Toward A Unifying Social Cognitive Theory Of Career And Academic Interest, Choice, And Performance. *Journal of Vocational Behavior*, 34, 79–122.
- Lent, R. W., Singley, D., Sheu, H. B., Gainor, K. A., Brenner, B. R., Treistman, D., & Ades, L. (2005). Social cognitive predictors of domain and life satisfaction: Exploring the theoretical precursors of subjective well-being. *Journal of Counseling Psychology*, 52(3), 429. https://doi.org/10.1037/0022-0167.52.3.429
- Ma, P. W. W., & Shea, M. (2019). First-generation college students' perceived barriers and career outcome expectations: exploring contextual and cognitive factors. *Journal of Career Development*, 1-14. https://doi.org/10.1177/0894845319827650
- McWhirter, E. H., Rasheed, S., & Crothers, M. (2000). The effects of high school career education on social cognitive variables. *Journal of Counseling Psychology*, 47, 330-341. https://doi.org/10.1037/0022-0167.47.3.330
- Monsalve, C., Hazari, Z., McPadden, D., Sonnert, G., & Sadler, P. M. (2016). Examining the relationship between career outcome expectations and physics identity. *2016 PERC Proceedings*, 228-231. https://doi.org/10.1119/perc.2016.pr.052.
- Niles, S. G., & Harris-Bowlsbey, J. E. (2017). Career development interventions, The Merrill Counseling Series. [5th Edition] (pp. 306-324). Pearson. New Jersey
- Oliveira, Í. M., Taveira, M. D. C., Cadime, I., & Porfeli, E. J. (2016).

 Psychometric properties of a career exploratory outcome expectations measure. *Journal of Career Assessment*, 24(2), 380–396. https://doi.org/10.1177/1069072715580577
- Patton, W., & McMahon, M. (2014b). Theories focusing on content and process. in Patton, W., & McMahon, M. (Eds.) Career development and systems theory: Connecting theory and practice (Vol. 6). Sense Publishing.
- Sari, S. V. (2018). The role of perfectionism in predicting vocational outcome expectations. *Journal of International Social Research*, *11*(55), 706-713. http://dx.doi.org/10.17719/jisr.20185537241

- Sarı, S. V., Kabadayı, F., & Şahin, M. (2017). Mesleki sonuç beklentisinin açıklanması: öz-aşkınlık, öz-bilinç ve özkontrol/öz-yönetim. *Türk Psikolojik Danışma ve Rehberlik Dergisi*, 7(48), 145-159.
- Sari, S. V., & Camadan, F. (2019). The career exploration outcome expectations scale-Turkish: Adaptation and validation. *Current Psychology*, 1-10. https://doi.org/10.1007/s12144-019-0126-6
- Schermelleh-Engel, K., Moosbrugger, H. ve Müller, H. (2003). Evaluating the fit of structural equation models: Tests of significance and descriptive goodness-of-fit measures. *Methods of Psychological Research Online*, 8(2), 23-74.
- Schumacker, R. E. ve Lomax, R. G. (2010). A beginner's guide to structural equation modeling (3. Ed.). New york: Routledge Academic.
- Springer, S. H., Larson, L. M., Tilley, B. P., Gasser, C. E., & Quinn, A. C. (2001). The Development of an Educational and Career Outcome Expectancy Scale. Paper presented at the Annual Meeting of the American Psychological Association (109th, San Francisco, CA, August 24-28, 2001)
- Şeker, G. (2020). Kariyer psiko-eğitim programının on birinci sınıf öğrencilerinin kariyer kararı yetkinlik ve eğitsel sonuç beklenti düzeylerine etkisi. (Yayımlanmamış doktora tezi). Mersin Üniversitesi Eğitim Bilimleri Enstitüsü, Mersin.

- Tabachnick, G. B. & Fidell, L. S. (2012). *Using multivariate* statistics (6th ed.). Boston, MA: Pearson.
- Tavşancıl, E. (2010). *Tutumların ölçülmesi ve SPSS ile veri analizi* (4. Basım.). Ankara: Nobel Yayınları.
- Tilley, B. P. (2005). The development of the revised version of the educational outcome expectancy scale. Unpublished doctoral dissertation. Available from ProQuest Dissertations & Theses Global. Erişim: https://search.proquest.com/docview/304990975?accountid=16645
- Uzun, M.B. (2019). Türkiye'de eczacılık istihdam alanlarının incelenmesi ve sosyal bilişsel kariyer kuramı temelli bireysel ve grup müdahalesi: Ankara Üniversitesi Eczacılık Fakültesi öğrencileri üzerinde bir uygulama. (Yayımlanmamış doktora tezi). Ankara Üniversitesi Sağlık Bilimleri Enstitüsü, Ankara.
- Yeşilyaprak, B. (2013). 21. Yüzyılda eğitimde rehberlik hizmetleri (Gelişimsel Yaklaşım), Ankara: Nobel Yayınları (21.Basım)
- Yılmaz, I., Dündar, A., & Atli, A. (2020). Üniversite öğrencilerinin yaşam doyumunun yordayıcısı olarak mesleki sonuç beklentisi. İnönü Üniversitesi Eğitim Bilimleri Enstitüsü Dergisi, 7(13), 68-77 https://doi.org/10.29129/inujgse.640817

APPENDIX

The Educational Outcome Expectations Scale*

The items on this scale aim to determine your educational outcome expectations regarding the education you receive and will receive at school until the end of high school, your academic / vocational goals, and career decisions. It is important that you answer the items completely and sincerely.

_	disagree	agree	→

With the education I have received and will receive,

- I will be able to prepare adequately for university entrance exams.
- 2 I will be able to go to a higher education program (department) that I am interested in.
- 3 I will be able to obtain an achievement that is appreciated by my close circles in the exams.
- 4 I will be able to get a result I want in the university entrance exams.
- 5 I will be able to learn the resources that I can get support from for choosing a profession.
- 6 I will be able to identify areas in which I am talented.
- 7 I will be able to obtain information about career options apart from university education.
- 8 I will be able to gain decision-making skills.
- 9 I will be able to learn enough about professions.
- 10 I will be able to get information about job opportunities after high school.
- 11 I will be able to set achievable vocational goals.

^{*}Academic-oriented educational outcome expectations: Items 1-4 Career-oriented educational outcome expectations: Items 5-11