



Uluslararası Sosyal Araştırmalar Dergisi

The Journal of International Social Research

Cilt: 8 Sayı: 39 Volume: 8 Issue: 39

Ağustos 2015 August 2015

www.sosyalarastirmalar.com Issn: 1307-9581

## Özerk Öğrenme Ölçeği'nin Türkçeye Uyarlanması ve Geçerlilik Çalışması Turkish Adaptation and Validation of Autonomous Learning Scale

Serhat ARSLAN\*  
Cengiz YURDAKUL\*\*

### Öz

Özerk Öğrenme kavramının önemine rağmen bu konudaki işlevsel ölçek eksikliğinin ortaya çıkması üzerine "Özerk Öğrenme Ölçeği" öğrencilerin özerkliğini ölçmek için geliştirilmiştir (Macaskill & Taylor, 2010). Bu çalışmada, öğrenci özerkliğini değerlendirmek adına Özerk Öğrenme Ölçeği'nin Türk kültürüne uyarlama çalışması yapılmıştır. Doğrulayıcı faktör analizinin sonuçları 12 ölçek maddesinin iki faktörle yüklü ve iki boyutlu modelin uygun olduğunu göstermiştir ( $\chi^2=207.03$ ,  $df= 53$ ,  $RMSEA=.062$ ,  $GFI=.96$ ,  $CFI=.96$ ,  $IFI=.96$ ,  $AGFI= 0.94$ ,  $RFI=.93$ ,  $NNFI=.95$ ,  $NFI=.94$ , and  $SRMR=.044$ ). Ölçeğin iç tutarlılık katsayısı .80 iken toplam madde korelasyonu ise .29 ile .59 değerleri arasında hesaplanmıştır. Özerk Öğrenme Ölçeği'nin Türkçe uyarlamasının bulguları, uyarlanabilirliğinin yanısıra ölçeğin beklenen güvenilirlik ve geçerlilik özelliklerini de taşıdığını göstermektedir. Böylece, bu çalışma sayesinde Türkiye'deki öğrencilerin öğrenen özerkliğini ölçmede, uyarlama çalışması yapılan Özerk Öğrenme Ölçeği'nin geçerli bir araç olduğu ortaya çıkmaktadır.

**Anahtar Kelimeler:** Özerk Öğrenme, Özerk Öğrenme Ölçeği, Uyarlama, Geçerlilik, Güvenilirlik.

### Abstract

Autonomous Learning Scale (Macaskill & Taylor, 2010) was developed to measure learner autonomy in students after revealing that there was a lack of comprehensive measures of autonomous learning despite its significance. In the light of the need for valid measures for evaluating the learner autonomy, we adapted the ALS and conducted a psychometric validation with students. The results of confirmatory factor analysis described that the 12 items loaded two factors and the two dimensional model was well fit ( $\chi^2=207.03$ ,  $df= 53$ ,  $RMSEA=.062$ ,  $GFI=.96$ ,  $CFI=.96$ ,  $IFI=.96$ ,  $AGFI= 0.94$ ,  $RFI=.93$ ,  $NNFI=.95$ ,  $NFI=.94$ , and  $SRMR=.044$ ). The internal consistency coefficient was .80 for the overall scale. The item-total correlations of ALS ranged from .29 to .59. Overall findings of the ALS Turkish version demonstrated expected reliability and validity with adaptive abilities. Thus, this study indicates that the adapted ALS is a valid instrument for measuring students' learner autonomy in Turkey.

**Keywords:** Autonomous Learning, Autonomous Learning Scale, Adaptation, Validity, Reliability.

### Introduction

The value of learner autonomy in fostering learner improvement increased by the movement towards learner-centred approach especially in relation to lifelong learning skills. While it is more commonly now being labeled as autonomous learning or independent learning, it is often called as self-directed learning in the early literature (Long, 1989). Holec (1981) coined the term "learner autonomy" for the first time as a pioneer of learner autonomy, and defined it as "the ability to take charge of one's own learning". Many definitions have since been given to the term, depending on the writer, the context, and the level of debate educators have come to. However, what is meant by autonomous learning has still remained ambiguous.

There is a number of definitions for autonomous learning. It is variously described as the learner's ability to acquire knowledge or skills of value self-sufficiently by methods that he/she chooses (Chene, 1983), or as being a psychological characteristic of individuals who are able to set their own goals, create their own learning opportunities (Nunan, 1995), and independently direct their learning and resourcefulness in autonomous learning. (Knowles 1980; Merriam and Caffarella 1999; Ponton 1999). Consequently, the definition which stresses the psychological characteristics of autonomous learners has been asserted by Ponton, Carr, and Confessore (2000) that autonomous learning includes the application of personal initiative in engaging with learning and finding resources and opportunities for learning, diligence in learning, and resourcefulness.

In addition to ambiguous definitions, there was an obvious dearth of any relatively short, psychometrically sound measure of autonomous learning (Macaskill & Taylor, 2010). The lack of measures may be explained by the fact that most research has been conducted on the developments related to the facilitation of autonomous learning rather than on the characteristics of autonomous learners (Merriam and

\* Asst. Prof. Dr. Serhat ARSLAN, Sakarya University, Institute of Education Sciences, serhatarslan@sakarya.edu.tr

\*\* Cengiz YURDAKUL, Sakarya University, Institute of Education Sciences, cengiz.yurdakul@ogr.sakarya.edu.tr

Caffarella, 1999). Guglielmino's (1977) "Self-directed Learning Readiness Scale" and "Self-directed Learning Readiness Scale for Nursing Education" which was developed more recently (Fisher et. al., 2001) were not considered as functional scales to measure autonomous learning because of some shortcomings, so it was aimed to develop a short psychometrically sound measure of autonomous learning by (Macaskill & Taylor, 2010).

Autonomous Learning Scale (ALS) is a 12 item self-report questionnaire developed by Macaskill and Taylor (2010). In an attempt to extend the cross-cultural investigation of autonomous learning we aimed to provide further data for the measurement of learner autonomy by examining the psychometric properties of ALS in Turkish student samples.

The aim of the present study is to adapt Autonomous Learning Scale (Macaskill & Taylor, 2010) into Turkish to increase the availability of such measures to researchers. Therefore, such a scale to be adapted into Turkish is thought to contribute to future research to be conducted on this area.

## **Method**

### **Participants**

The sample of this research consisted of 752 secondary school students enrolled in three public schools, aged 11 - 16 from different parts of Sakarya, Turkey. 326 participants were male which constituted 43% of the sample and 426 participants were female which constituted 57% of the sample. 227 students were at the sixth grade, which constituted 30% of the sample, 245 students were at the seventh grade, which constituted 33% of the sample, and 280 students were at the eighth grade, which constituted 37% of the sample.

### **Procedure**

Prior to the study, the first authors of the development study of ALS were contacted for the permission of adapting the ALS into Turkish via e-mail. Upon their approval, the present study was conducted.

The study was conducted by a process of forward and backward translation of the original scale which is the most frequently applied translation process (Yu et. al., 2004). Initially, this method includes a forward translation from the original language (English) to the target language (Turkish). Next, the target language (Turkish) is then translated back into the original language (English) and compared to the original version. In addition, the backward translation process (Wang et. al., 2006) is the one that mistakes in the target language are easily identified by looking at the differences in meaning. Consequently, differences in items were retranslated until full agreement was achieved between the authors.

In the original scale, two items were negatively worded to help prevent response bias in participants. On the other hand, in the adapted version, one of them (Item 11) was positively worded in order to achieve coherence. Besides, the original Likert scale with "Very like me" at one end and "Not at all like me" at the other was adapted into Turkish as "Strongly agree" at one end and "Strongly disagree" at the other to sound familiar in Turkish. After these translation processes, at the adaptation and pilot study phase, English version of the ALS was applied to 25 EFL teachers. One week later, Turkish version of the ALS was reapplied to former 25 EFL teachers in order to check the validity of the translation, and it was accepted as equivalent to the original. As the final process, the adapted version of the scale implemented with 752 secondary school students enrolled in three different public schools in Sakarya for further investigation.

The structure of the original scale in Turkish culture was approved by carrying out the confirmatory factor analysis (CFA) after assessing the validity and reliability analyses of the scale. In addition to these evaluations, item-total correlations and internal consistency reliability were analysed. Data analyses were performed using LISREL 8.54 and SPSS 22.0 package programs.

## **Results**

### **Construct Validity**

When researchers have obvious hypotheses about a scale such as the number of factors or dimensions underlying its items, links between certain items and certain factors, and the connection between factors, Confirmatory Factor Analysis (CFA) is quite useful. In other words, with CFA, researchers evaluate "measurement hypotheses" concerning a scale's internal structure. Furr and Bacharach (2008) asserted that CFA makes it possible for researchers to evaluate the degree to which their measurement hypotheses are consistent with the actual data of the scale. The conclusion of confirmatory factor analysis indicated that the two-dimensional model was well fit ( $\chi^2=207.03$ ,  $df= 53$ ,  $RMSEA=.062$ ,  $GFI=.96$ ,  $CFI=.96$ ,  $IFI=.96$ ,  $AGFI= 0.94$ ,  $RFI=.93$ ,  $NNFI=.95$ ,  $NFI=.94$ , and  $SRMR=.044$ ).

Factor loadings and path diagram for Turkish version of ALS are displayed in Figure 1.1

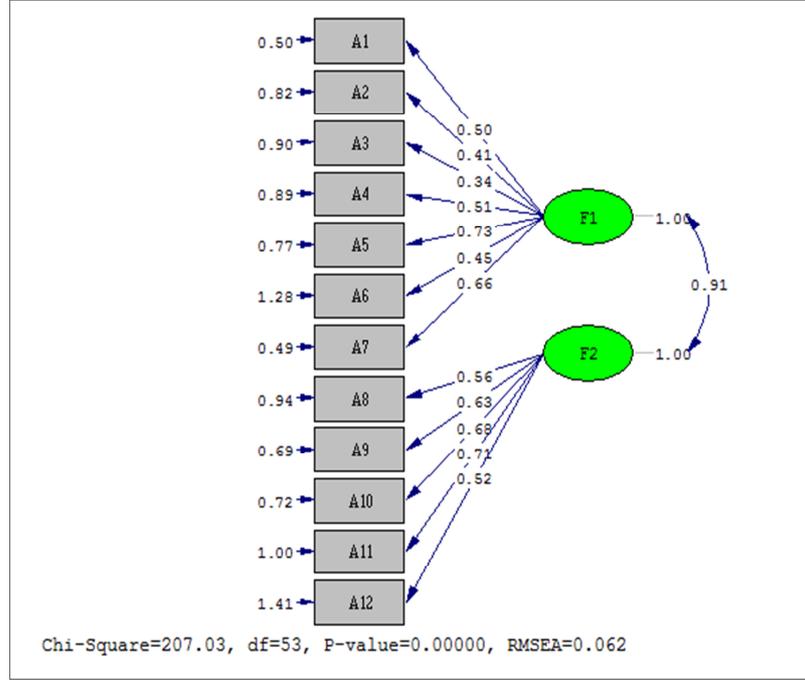


Figure 1.1: Factor Loadings and Path Diagram for the ALS

### Reliability

The Cronbach's Alpha internal consistency reliability coefficients of the scale were calculated as .80 for whole scale.

Table 1: Item-Total Correlation for the Turkish Version of Autonomous Learning Scale

Items of the Scale	Item-Total Correlation ( $r_{ix}$ )
1. Yeni öğrenme deneyimlerini severim.	.49
2. Bilinen şeyleri yeni yöntemlerle yapma fikrine açığım.	.36
3. Zorluklarla başa çıkmayı severim.	.29
4. Yeni konular hakkında kendi kendime bilgi edinmeyi severim.	.42
5. Dersler zor olduğunda bile sabırla çalışmaya devam ederim.	.55
6. Ödev son teslim tarihleri beni derse daha iyi motive eder.	.33
7. Öğrenme deneyimlerimle ilgili sorumluluk alırım.	.59
8. Zaman yönetiminim iyidir.	.41
9. Ödev teslim tarihlerine uymada iyiyim.	.52
10. Etkili çalışma için zamanımı planlarım.	.53
11. Derse başlamak için asla bahane üretmem.	.48
12. Kendi kendime çalışmak beni mutlu eder.	.36

### Discussion

Autonomous Learning Scale was developed because of the fact that there was a lack of relatively brief measures of autonomous learning (Macaskill & Taylor, 2010). In the light of the same need for valid measures for evaluating the learner autonomy in Turkish-speaking students we adapted the Autonomous Learning Scale into Turkish.

The main aim of this study was to adapt Autonomous Learning Scale into Turkish and examine its psychometric properties. Overall findings of the ALS Turkish version demonstrated expected reliability and validity with adaptive abilities. Thus, the study confirmed that the Turkish version of the Autonomous Learning Scale was valid and reliable measures. Construct validity and item-total correlations supported the strength of the Turkish version of the Autonomous Learning Scale and alignment to the original English versions. The results of confirmatory factor analysis described that the 12 items loaded two factors and the two dimensional model was well fit ( $\chi^2=207.03$ ,  $df= 53$ ,  $RMSEA=.062$ ,  $GFI=.96$ ,  $CFI=.96$ ,  $IFI=.96$ ,  $AGFI= 0.94$ ,  $RFI=.93$ ,  $NNFI=.95$ ,  $NFI=.94$ , and  $SRMR=.044$ ). The internal consistency coefficient was .80 for the overall scale. The item-total correlations of ALS ranged from .29 to .59. Thus, this study indicates that the adapted ALS is a valid instrument for measuring students' learner autonomy in Turkey.

A direct consequence of this study is the opportunity for cross-cultural comparisons, as well as Autonomous Learning Scale research solely within Turkey. However, the present paper has a few limitations worth considering. The sample size of the current study is one of the limitations. It consists of

only three schools in the same city which limits the validity of the findings. Generalizability of these findings cannot be guaranteed with all populations in Turkey.

In order to generalize the outcomes of this study, it is suggested that further researches should be conducted with various populations. In addition, future research should aim to investigate nonstudents and adult learners, as well as a wider age range, to attempt to confirm the factor structure of the scale.

Although more research is needed, the results of this study show that Turkish version of the Autonomous Learning Scale is an efficient instrument for measuring learner autonomy in the Turkish cultural context, with good psychometric strength. In conclusion, results of the validity and reliability tests indicated that Turkish adaptation of the Autonomous Learning Scale is valid and reliable scale.

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### Özerk Öğrenme Ölçeği

Sizin için en uygun seçeneğin karşısına çarpı (X) işareti koyunuz. Lütfen her ifadeye mutlaka tek yanıt veriniz ve kesinlikle boş bırakmayınız. En uygun yanıtı vereceğinizi ümit eder katkılarınız için teşekkür ederim; (1) Kesinlikle katılmıyorum (2) Katılmıyorum (3) Kararsızım (4) Katılıyorum ve (5) Kesinlikle katılıyorum anlamına gelmektedir.

1	Yeni öğrenme deneyimlerini severim.	1	2	3	4	5
2	Bilinen şeyleri yeni yöntemlerle yapma fikrine açığım.	1	2	3	4	5
3	Zorluklarla başa çıkmayı severim.	1	2	3	4	5
4	Yeni konular hakkında kendi kendime bilgi edinmeyi severim.	1	2	3	4	5
5	Dersler zor olduğunda bile sabırla çalışmaya devam ederim.	1	2	3	4	5
6	Ödev son teslim tarihleri beni derse daha iyi motive eder.	1	2	3	4	5
7	Öğrenme deneyimlerimle ilgili sorumluluk alırım.	1	2	3	4	5
8	Zaman yönetimim iyidir.	1	2	3	4	5
9	Ödev teslim tarihlerine uymada iyiyim.	1	2	3	4	5
10	Etkili çalışma için zamanımı planlarım.	1	2	3	4	5
11	Derse başlamak için asla bahane üretmem.	1	2	3	4	5
12	Kendi kendime çalışmak beni mutlu eder.	1	2	3	4	5