ISSN: 2146 - 9466
www.ijtase.net
International Journal of New Trends in Arts, Sports &Science Education - 2016, volume 5, issue 1

ÖZ-YÖNETİMLİ ÖĞRENME ÖLÇEĞİNİN TÜRKÇE'YE UYARLANMASI VE GEÇERLİLİK ÇALIŞMASI

TURKISH ADAPTATION AND VALIDATION OF SELF-DIRECTED LEARNING INVENTORY

Kübra (Avcı) Çelik
English Language Teacher - Ministry of Education, Turkey
kubraavci_@hotmail.com

Asist. Prof. Dr. Serhat Arslan
Sakarya University, Faculty of Education, Sakarya-Turkey
serhatarslan@sakarya.edu.tr

Özet
Öz-Yönetimli öğrenme kavramına ilişkin ölçekler çoğunlukla ilkokul ve ortaokul öğrencileri için geliştirilmiştir (Jung, Lim, Jung, Kim,&Yoon,2012). Üniversite öğrencilerinin öz-yeterlik düzeylerini değerlendiren işlevsel bir ölçek eksikliğinin ortaya çıkması üzerine, üniversite öğrencilerinin öz-yeterliğini ölçmek için "Öz-Yönetimli Öğrenme Ölçeği" geliştirilmiştir (Suh,Wang, Arterberry,2015). Bu çalışmada ise, Türkçe konuşan öğrencilerin öz-yönetimli öğrenme düzeylerini değerlendirmek adına geçerlilik özelliği taşıyan ölçeklere duyulan ihtiyacın sonucunda Öz-Yönetimli Öğrenme Ölçeği'ni ortaokul öğrencilerine uygulamak üzere Türkçe'ye uyarladık. Bu doğrultuda, öncelikle psikometrik geçerlilik çalışmasını Sakarya Serdivan ilçesindeki bir devlet ortaokulunda eğitim görmekte olan yaşları 11 ile 16 arasında değişen 300 öğrenci üzerinde gerçekleştirilmiştir.Doğrulayıcı faktör analizinin sonuçları 28 ölçek maddesinin sekiz faktörle yüklü ve sekiz boyutlu modelin uygun olduğunugöstermiştir(x^2=604.41, df= 322, RMSEA=.052, NFI=.97, CFI=.98, IFI=.98, RFI=.94, AGFI=.85, SRMR=.054). Ölçeğin iç tutarlılık katsayısı .93 iken toplam madde korelasyonu ise .29 ile .69 değerleri arasında hesaplanmıştır. Öz-Yönetimli Öğrenme Ölçeği'nin Türkçe uyarlamasının bulguları, uyarlanabilirliğinin yanısıra ölçeğin beklenen güvenilirlik ve geçerlilik özelliklerini de taşıdığını göstermektedir. Bu sebeple, bu çalışma ile Türkiye'deki öğrencilerin öğrenen özerkliğini ölçmede, uyarlama çalışması yapılan bu ölçeğin geçerli bir araç olduğu ortaya çıkmaktadır.
Anahtar Kelimeler: Öz-Yönetim,Öğrenme , Uyarlama, Geçerlilik, Güvenilirlik

Abstract
Existing SDL scales were developed primarily for elementary to middle school students (Jung, Lim, Jung, Kim &Yoon, 2012). Self directed Learning Inventory (Suh,Wang, Arterberry,2015) was developed to measure self-directness in university students after revealing that there was a lack of comprehensive measures for evaluating university students' self-directness.In the light of the need for valid measures for evaluating the self-directness in Turkish-speaking students, SDL was adapted for secondary school students and a psychometric validation with secondary school students aged 11 - 16 from a public school located in Sakarya was conducted. The results of confirmatory factor analysis described that the 28 items loaded eight factors and the eight dimensionals model was wellfit (x^2=579.75, df= 321, RMSEA=.052, NFI=.97, CFI=.98, IFI=.98, RFI=.94, AGFI=.85, SRMR=.050). The internal consistency coefficient was .93 for the overall scale.The item-total correlations of SDL ranged from .29 to .69**.** Overall findings of the SDL Turkish version demonstrated expected reliability and validity with adaptive abilities. Thus, this study indicates that the adapted SDL is a valid instrument for measuring secondary school children's self-directness in Turkey.
Keywords: Self-Directed, Learning, Adaptation, Validity, Reliability

Introduction

In 21st Century, the incremental developments on technology has exposured people to a wide range of information. As formal learning environments are not enough currently for adopting such a vast of information, people are in need of learning individually besides formal education. This individual learning need is labelled as Self Directed Learning (Hiemstra,1994). Self-directed learning (SDL) can be described as a process in which people take the primary initiative in identifying what to learn-why to learn, describing human and material sources for learning, selecting and performing suitable learning strategies and assessing learning outcomes (Knowles,1975). Learners who have a significant degree of self directed learning ability are self motivated people who can use various materials to solve questions that are related to their learning tasks (Brockett& Hiemstra, 1991) . The concept of SDL has become to be significant for the field of education when Alan Tough continued Houle's study on the motivations of learners with a more detailed survey. He observed many adults completed

one or two learning projects in a year by themselves. This research revealed the importance of people's taking the responsibility of their own learning experiences (Roberson, 2005). Knowles (1975) made the first definition of Self directed learning that paved the way for creating the basis of andragogy which was a term that had been used in Europe for years to describe education with adults (Merriam & Caffarella, 1999). Brockett & Hiemstra (1991) described Self directed learning as a concept that includes not only the outer characteristics of the learning process but also the inner characteristics of the student, where the student takes primary initiative for his/her own learning process. Merriam and Caffarella (1991) proposed that in the self directed learning process, people have the primary responsibility for designing,performing and assessing their own learning processes (Merriam & Caffarella, 1991). Several models of Self Directed learning have also been improved. Self-Directed learning models are divided into three main categories: linear, interactive and instructional (Chou, 2012). Early studies like those suggested by Though (1971) and Knowles (1975) focus SDL as a linear period including a range of stages toward a learning objective. Interactive models that were proposed by Spear(1988), Brockett and Hiemstra (1991) and Garrison(1997) focus both on the content and on the learning period. Brockett and Hiemstra (1991) developed " The Personal Responsibility Orientation (PRO)" model of SDL that focused on 2 dimensions of SDL: SDL as an instructional method and SDL as a personality characteristics (Grover et. al.) PRO focused not only the internal characteristics of a learner but also the external characteristics of the instructional process (Brockett & Hiemstra, 1991) As a third progress, Grow (1991) proposed an instructional model that focuses SDL as a constituent of formal learning process. Instructional models of SDL includes both the characteristics of learning environments and various self directed stages of learners. Another significant contribution to SDL was Guglielmino's (1977) thesis. Guglielmino (1977) developed Self-Directed Learning Readiness Scale (SDLRS) to measure self direction in learning, which led to a great improvement for the study of SDL. The scale has translated into more than 15 languages and it has become the most widely used instrument in SDL studies (Merriam, Caffarella & Baumgartner, 2007). The scale's reliability and validity have supported by several researches (Hsu&Shiue, 2005). Establishment of a new instrument named "Oddi Continuing Learning Inventory (OCLI)" was also an important contribution to the Self-Directed learning. . It was developed to measure self directed and ongoing learning of professionals by Loris Oddi.(Oddi,1984). The scale came out as a result of Oddi's doubt about the present scales lacking of the theoretical basis for understanding personal characteristics of self directed continuing learners.(Brockett& Hiemstra, 1991). Therefore; Oddi (1984) focused on the effect of personal characteristics on self directed learning.Nowadays ,the concept has begun progressively gaining importance as a result of moving from teacher centered approach to learner centered approach in pedagogy.Today's learners construct their own knowledge by participating actively in learning environments rather than adopting the presented information. Teachers can ask questions, pay attention to their needs, generate suitable learning settings (Reeve, 2009) Moreover; according to Grow's (1991) model, in enhancing the self directness of the learner, teacher's aim is to find the appropriate self direction stage of each student and promote him/her for higher stages (Grow,1991). In Turkey, a limited number of studies was conducted to measure self-direction in learning.In a study "Development of Perceived Self-Regulation Scale: Validity and Reliability Study", Arslan and Gelişli examined the validity and reliability of the Perceived Self-regulation Scale on a sample including 604 secondary school students. According to the findings, the Perceived Self-regulation Scale was found as a valid and reliable instrument that could be used in the field of education (Arslan& Gelişli, 2015). In another study,"An Investigation of the Relationships between Metacognition and SelfRegulation with Structural Equation", Arslan examined the relationships between metacognition and self-regulation. According to the results, metacognition was predicted positively by self-regulation (Arslan,2014).Considering the significance of SDL and the development of culture specific evaluations of academic achievement, the purpose of the present study is to adapt Self-Directed Learning Inventory(Suh ,Kenneth, Arterberry, 2014) into Turkish. Adaptation of such a scale into Turkish is expected to pave the way for future researches to be conducted on this area.

Method

Participants

The participants of this research included 300 students from a public school located in Sakarya, Turkey.166participants were male which constituted 55.3 % of the sample and 134 participants were female which constituted 44.7% of the sample. 64 students were at the fifth grade, which constituted 21.3% of the sample, 81 students were at the sixth grade, which constituted 27% of the sample, 87 students were at the seventh grade, which constituted 87% of the sample and 68 students were at the eighth grade, which constituted 22.7% of the sample.

Procedure

Prior to the study, the first authors of the development study of SDL were contacted for the permission of adapting the SDL into Turkish via e-mail. Upon their approval, the present study was conducted.Self-Directed Learning Inventory was primarily translated into Turkish by five English teachers and the needed arrangements were done after the translations were examined.Next, the same group of English teachers translated the target language back into the source language (English) , compared to the original version in terms of consistency and then final Turkish version was attained by negotiating upon all turkish versions.Various arrangements were done after the trial form was examined by professionals of evaluation and assessment field.By carrying out the confirmatory factor analysis (CFA), adaptation of the original scale into Turkish culture was confirmed after assessing the scale in terms of validity and reliability. Besides of these assessments, the scale was analysed in terms of item-total correlations and internal consistency reliability. LISREL 8.54 and SPSS 22.0 package programs were used during the data analysis process.

Results

Item-Total Correlation for the Turkish Version of Self-Directed Learning Inventory

	Ölçek Maddeleri	Madde-Toplam Korelasyon (r_{jx})
1	Her zaman bir şeyler öğrenmeye çalışırım.	.65
2	Öğrenmeye meraklı biriyim.	,61
3	Yeni şeyler öğrenmekten hoşlanırım.	,63
4	Bir şeyler öğrenmek için büyük istek duyarım.	,69
5	Öğrenme isteğimin farkındayım.	,58
6	Ödevlerimi her zaman zamanında teslim ederim.	,57
7	Başladığım görevi her zaman bitiririm.	,55
8	Her zaman ödevlerimi bitiririm.	,55
9	Gerektiğinde çalışma ve ödevlerimin tarih ve saatini ayarlarım.	,58
10	Çalışmaya başlamadan önce çalışma planı hazırlarım.	,49
11	Çalışma planı yapmak benim için zor değildir.	,56
12	Bir şeyleri okuma ve anlama konusundaki performansımdan memnunum.	,61
13	Bir şeyler öğrenmek için kaynaklardan yararlanma konusundaki performansımdan memnunum.	,57

14	Sorulara cevap verme konusundaki performansımdan memnunum.	,52
15	Doğru cevap verdiğim soruları en doğru şekilde cevaplandırdığıma emin olurum.	,56
16	Sınıfta tartışılan en zor konuları bile anlayabilirim.	,50
17	Çoktan seçmeli sorularda başarılıyım.	,51
18	Bilgi ve beceriyi en iyi şekilde öğrenebilirim.	,58
19	Zor konuları dahi öğrenmek için bir yol bulurum.	,58
20	Ne kadar meşgul olursam olayım bir şeyler öğrenmek için çabalarım.	,64
21	Yanlış yapma ihtimalim olsa da zor soruları çözmek için uğraşırım.	,56
22	İlgili olduğum konuyu öğrenmek için sabahlayabilirim.	,39
23	Öğrenme performansımı değerlendirmek önemlidir.	,55
24	Öğrenme performansımı değerlendirmek benim için ilgi çekicidir.	,60
25	Çalışma planlarının etkililiğini değerlendirmek önemlidir.	,58
26	Performansımın iyi sonuçlanmasını çabalarımın bir sonucu olarak görürüm.	,60
27	İyi sonuçlar almamı süreci başarılı yürütmeme bağlarım.	,59
28	Performansım kötü sonuçlandığında yeteri kadar çaba sarf etmediğimi düşünürüm.	,29

Construct Validity

Confirmatory Factor Analysis (CFA) is highly recommendable for the researchers focusing on clear hypotheses about a scale such as the number of factors or dimensions underlying its items, connection between certain items and certain factors, and the link between factors.By applying CFA, researchers assess "measurement hypotheses" relating to internal structure of a scale. CFA allows researchers to assess the degree of consistency between their hypotheses and the actual data of the scale.(Fur and Bacharach,2008)The conclusion of confirmatory factor analysis indicated that the eight-dimensional model was well fit **(**x^2=604.41, df= 322, RMSEA=.052, NFI=.97, CFI=.98, IFI=.98, RFI=.94, AGFI=.85, SRMR=.054**).**

ISSN: 2146 - 9466
www.ijtase.net
International Journal of New Trends in Arts, Sports &Science Education - 2016, volume 5, issue 1

Factor loadings and path diagram for Turkish version of SDL are displayed in Figure 1.

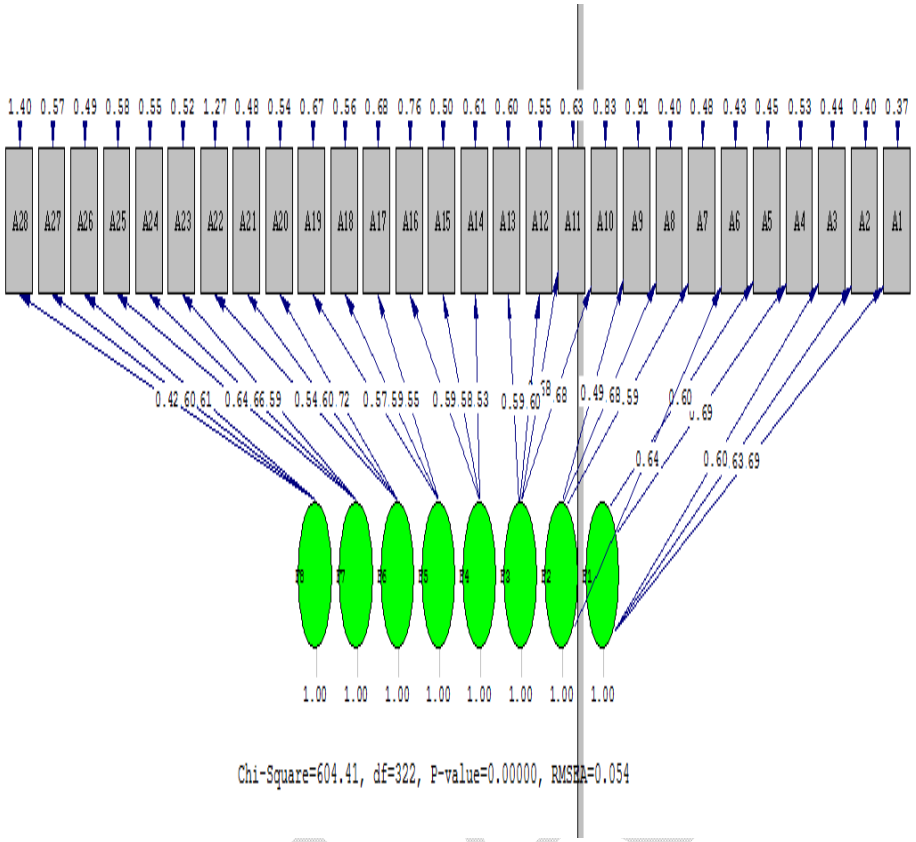

Figure 1.1: Factor Loadings and Path Diagram for the SDL

Reliability

The Cronbach's Alpha internal consistency reliability coefficients of the scale were calculated as .93 for whole scale.

Discussion

Self-Directed Learning Inventory was developed with the aim of designing a SDL instrument tailored to specific settings..(Suh,Wang, Arterberry,2015) As Stockdale and Brockett point out that developing instruments designed for specific populations and settings is a significant attempt for SDL researches, the study serves as an answer to this call.In the light of the need for a valid measure for evaluating the SDL in Turkish-speaking students, we adapted the Self-Directed Learning Inventory into Turkish.The main purpose of this study was to adapt Self-Directed Learning Inventory into Turkish and evaluate its psychometric values. Overall findings of the SDL Turkish version showed anticipated reliability and validity with adaptive features. Thus, the study confirmed that the Turkish version of the Self-Directed Learning Inventory was a valid and reliable measure. Construct validity and item-total correlations promoted the strength of the Turkish version of the Self-Directed Learning Inventory and adaptationto the original English version. The results of confirmatory factor analysis described that the 28 items loaded eight factors and the eight dimensionals model was well fit (x^2=604.41, df= 322, RMSEA=.052, NFI=.97, CFI=.98, IFI=.98, RFI=.94, AGFI=.85, SRMR=.054)The internal consistency coefficient was .93 for the overall scale. The item-total correlations of SDL ranged from .29 to .69. Thus, this study shows that the adapted SDL is a valid and reliable instrument for measuring SDL in secondary school children in Turkey.The present study ensured primary support for the SDLI. However, it has several limitations worth considering. First, the collected data that forms

the basic of the study is self-reported. Second, it is uncertain whether SDL is practically showed in performance.For providing further validation of the scale, extra indicators could be used. Third, the sample size of the study is also a limitation. The participants of the current study consists of students living in the certain region of Turkey which limits the generalizability of the findings. These findings cannot be generalized with all populations in Turkey.For further researches, SDLI should be conducted with different populations in order to generalize the outcomes of this study. In addition, future researches could be conducted on students from other countries in order to utilize and generalize the scale internationally.A direct result of this study is the opportunity for cross-cultural comparisons, as well as Self Directed Learning Inventory research merely within Turkey. Turkish version of SDLI consists of eight factors as in the Asian model; eight factors model fit the collected data, internal consistency of the factors is at a significant level and it serves its purpose well. When these results are taken into consideration, Turkish version of the Self-Directed Learning Inventory is an efficient instrument for measuring SDL in the Turkish cultural context, with good psychometric strength. To conlude, results of the validity and reliability tests showed that Turkish adaptation of the Self-Directed Learning Inventory is a valid and reliable measure.

References

Arslan, S. (2014). An investigation of the relationships between metacognition and selfregulation with structural equation. *International Online Journal of Educational Sciences*, 6 (3), 603-611.

Arslan, S., Gelişli, Y. (2015).Algılanan öz düzenleme ölçeği: Bir ölçek geliştirme çalışması.*Sakarya University Journal of Education,*5(3), 67-74

Büyüköztürk, S. (2007).*Veri analizi el kitabı*. Ankara: Pegem A Yayıncılık.

Brockett, R. G., Hiemstra, R.(1991). *Self-direction in Learning: Perspectives in Theory, Research,and Practice*, Routledge, London.

Chou,P.N., (2012). The relationship between engineering students' self-directed learning abilities and online learning performances: A pilot study.*Contemporary Issues in Education Research*, 5 (3),33-38
Grover, K.S, Miller T. M., Swearingen, B., Wood, N. (2014). An examination of the self-directed learning practices of esl adult language learners.*Journal of Adult Education*. 43 (2), 12-19

Guglielmino, L. M. (1977). Development of the self-directed learning readiness scale. Unpublished doctoral dissertation. The University of Georgia, Atherns, GA.

Harvey, B. J., Rothman, A. I., & Fredker, R. C. (2006). A confirmatory factor analysis of the ODDI continuing learning inventory (OCLI). *Adult Education Quarterly*, 56 (3), 188-200

Hsu, Y. C., & Shiue, Y. M. (2005).The effect of self-directed learning readiness on achievement comparing face-to-face and two-way distance learning instruction.*International Journal of Instructional Media*, 32 (2), 143-155.
Knowles, M S 1975.*Self-directed Learning*, Association Press, New York.
Merriam, S. B.& Caffarella, R. S.(1999).*Learning in Adulthood*, Jossey-Bass, San Francisco.
Merriam, S.B., Caffarella, R.S., Baumgartner, L.M. (2007). *Learning in Adulthood: A Comprehensive Guide*. (3rd). San Francisco, CA: Jossey-Bass.

Oddi, L. F. (1984). Development of an instrument to measure self-directed continuing learning. Unpublished doctoral dissertation. The Northern Illinois University, DeKalb, IL

Reeve, J. (2009). Why teachers adopt a controlling motivating style toward students and how they can become more autonomy supportive. *Educational Psychologist*, 44, 159-175. doi: 10.1080/00461520903028990
Roberson, Donald N.,Jr.(2005) Self directed learning past and present.Online submission.http://eric.ed.gov/?q=Self+directed+learning+past+and+present&ft=on&id=ED490435

Saeednia, Y. (2011) Self-directed learning among children of ages nine to eleven in Tehran: Generating a persian version of Sdlr-Abe.*US-China Education Review.*Online submission. A 4 ,511-522

Öz-Yönetimli Öğrenme Envanteri (Turkish Version of the Self-Directed Learning Inventory)						
1	Her zaman bir şeyler öğrenmeye çalışırım.	1	2	3	4	5
2	Öğrenmeye meraklı biriyim.	1	2	3	4	5
3	Yeni şeyler öğrenmekten hoşlanırım.	1	2	3	4	5
4	Bir şeyler öğrenmek için büyük istek duyarım.	1	2	3	4	5
5	Öğrenme isteğimin farkındayım.	1	2	3	4	5
6	Ödevlerimi her zaman zamanında teslim ederim.	1	2	3	4	5
7	Başladığım görevi her zaman bitiririm.	1	2	3	4	5
8	Her zaman ödevlerimi bitiririm.	1	2	3	4	5
9	Gerektiğinde çalışma ve ödevlerimin tarih ve saatini ayarlarım.	1	2	3	4	5
10	Çalışmaya başlamadan önce çalışma planı hazırlarım.	1	2	3	4	5
11	Çalışma planı yapmak benim için zor değildir.	1	2	3	4	5
12	Bir şeyleri okuma ve anlama konusundaki performansımdan memnunum.	1	2	3	4	5
13	Bir şeyler öğrenmek için kaynaklardan yararlanma konusundaki performansımdan memnunum.	1	2	3	4	5
14	Sorulara cevap verme konusundaki performansımdan memnunum.	1	2	3	4	5
15	Doğru cevap verdiğim soruları en doğru şekilde cevaplandırdığıma emin olurum.	1	2	3	4	5
16	Sınıfta tartışılan en zor konuları bile anlayabilirim.	1	2	3	4	5
17	Çoktan seçmeli sorularda başarılıyım.	1	2	3	4	5
18	Bilgi ve beceriyi en iyi şekilde öğrenebilirim.	1	2	3	4	5
19	Zor konuları dahi öğrenmek için bir yol bulurum.	1	2	3	4	5
20	Ne kadar meşgul olursam olayım bir şeyler öğrenmek için çabalarım.	1	2	3	4	5
21	Yanlış yapma ihtimalim olsa da zor soruları çözmek için uğraşırım.	1	2	3	4	5
22	İlgili olduğum konuyu öğrenmek için sabahlayabilirim.	1	2	3	4	5
23	Öğrenme performansımı değerlendirmek önemlidir.	1	2	3	4	5
24	Öğrenme performansımı değerlendirmek benim için ilgi çekicidir.	1	2	3	4	5
25	Çalışma planlarının etkililiğini değerlendirmek önemlidir.	1	2	3	4	5
26	Performansımın iyi sonuçlanmasını çabalarımın bir sonucu olarak görürüm.	1	2	3	4	5
27	İyi sonuçlar almamı süreci başarılı yürütmeme bağlarım.	1	2	3	4	5
28	Performansım kötü sonuçlandığında yeteri kadar çaba sarf etmediğimi düşünürüm.	1	2	3	4	5