

**Sportspersonship Behavior Scale in Physical Education Course:
Validity Reliability Study**

Yakup KOÇ *

Abstract

The aim of this study is to develop a scale that researchers and educators could use on elementary school students and which could measure the reliability and validity of sportspersonship behavior in physical education course. In developing the scale, similar scales in literature and questionnaires as well as physical education curriculum were also investigated. In addition, after receiving relevant student, teacher and specialist opinions, a draft version was prepared. The draft prepared with a 5 point Likert item and measuring the frequency of behavior exposed was administered on 449 elementary school students studying in the province of Erzincan. For the validity of the scale, exploratory factor analysis, confirmatory factor analysis, item-total correlation were measured while for reliability Cronbach-alpha internal consistency, test-retest and Pearson Product Moment Correlation Co-efficiency were measured. For data analysis, SPSS 15 and LISREL 8,7 programs were used. The findings showed that the scale was valid and reliable. Two factor structure of the scale with 22 items was in general compatible with the theoretical form of sportspersonship behavior components.

Keywords: physical education course, sportspersonship, scale

* Yrd. Doç.Dr., Erzincan Üniversitesi, e-posta: hizir80@yahoo.com

Extended Summary

Purpose

Sportspersonship involves sincerity, courage, patience, self-control, self-confidence, modesty, respect for others' truth and opinions, gentleness, favor, nobility, honor, sharing and generosity (Keating, 2007). The acquisition of convenient behavior in sportspersonship by students at schools in physical education course plays an important role in growing a generation with moral values. Yıldırım (1992) states that the preliminary applications of sportspersonship derive from similar reasons in England. Besides knowing how to acquire understanding of sportspersonship, it is also important to get the results of the activities. Therefore, a need for measure and evaluation of students' sportspersonship behavior that includes sportive activities in physical education course. The aim of this study develop a scale that educators and researchers who would teach physical education could behavior on elementary school students and which could measure the reliability and validity of sportspersonship behavior in physical education course

Method

The "Sportspersonship Behavior Scale in Physical Education Course" developed is that with 5 point likert item which measures the frequency of behavior exhibited. The draft version of scale developed as a result of relevant student, teacher and specialist opinions was conducted upon 449 elementary school students. For the validity of the scale, exploratory factor analysis, confirmatory factor analysis, item-total correlation were measured while for reliability Cronbach-alpha internal consistency, test-retest and Pearson Product Moment Correlation Co-efficiency were examined. In order to evaluate the data SPSS 15 and LISREL 8,7 programs were employed.

Results

The results of analysis revealed that the scale could be based upon 2 factors. For two factor analysis, varimax rotated component analysis was employed and for rotation varimax technique was used. The results of analysis showed that it would be convenient to apply a third analysis on twenty two items selected whose factor loading value was .45 and over. The third analysis of 22 items suggested that KMO value was found .875 and Bartlett test was found to be significant ($X^2=2117.185; p < .001$). Total variance that two factors account for as a result of third factor analysis was 41.604 %. In social sciences, the variance explained in multi-factor scales is supposed to be over 40% (Büyüköztürk, 2004). For item analysis of the scale consisting of 22 items, item-total correlation values varied from .31 to .70. The items whose item-total correlation was .30 and over were found to have high level of dis-

tinctive features (Büyüköztürk, 2004). To test the factor structure obtained through EFA, the results of CFA suggested the following values : $X^2/sd=2.00$, RMSEA=.067, SRMR=.08, CFI=.95, GFI=.85, AGFI=.82, NFI=.90 ve NNFI=.95. The values of fit obtained were evaluated in accordance with practical approaches used in evaluation of model data fit and the findings obtained were determined to be non-objectionable (Yılmaz and Çelik 2009). After the scale was limited to 22 items, the students were made to conduct test-retest technique and the Pearson Product Moment Correlation Co-efficiency of the scale was found .81. In terms of factors, for factor 1 the value was .80 and for factor 2 the value was .78. Tavşancıl (2002) states that for a scale to be reliable, correlation co-efficiency is supposed to be at least .70.

Discussion

In the study conducted on elementary school students, the final version of Sportpersonship Behavior Scale in Physical Education Course consists of 22 items and two factors. The first factor consisting of 11 items is related to the “exhibition of convenient behavior while the second factor composed of 11 items concerns “avoidance from unacceptable behavior”. These two factors account for 41.604 % of all variants among the whole scale. While the percentage seems lower, the relevant literature finds it sufficient (Büyüköztürk, 2004). Compared with other national and international factor structure of questionnaires and scales, the factor structure of the scale developed in the study has similarities (Gürpınar, 2009 and Vallerand, Briere, Blanchard & Provencher, 1997). Internal consistency of the whole scale (Cronbach Alpha) was found .85. The Pearson Momentler Product Correlation was found .81 by test-retest technique. The results of CFA pointed out that all fit indexes were considered within the limits except GFI and AGFI (Yılmaz and Çelik, 2009). In addition, Marsh and Balla (1992) and Frias and Dixon (2005), stated the fact that GFI was 0.85 and over could be regarded as reasonable for model data fit. There is no unanimous understanding which goodness of fit to be used. Mac Callum and Austin (2000) after a broad meta-analysis suggested that SRMR and RMSEA be used. According to these approaches, CFA values are acceptable though not perfectly fit and factor structure obtained as a result of EFA is confirmed.

Conclusion

Since not enough studies have been conducted on sportpersonship in our country and few researches have been made on sportpersonship in physical education course, we believe that the present work is authentic and that this study could be used to determine the levels of sportpersonship behavior of elementary school students. From this scale, a new valid and reliable scale should be developed to measure sportpersonship behavior of high school students.

* * * *

References

- Altunışık, R., Coşkun, R., Bayraktaroğlu, S. & Yıldırım, E. (2005). *Sosyal bilimlerde araştırma yöntemleri SPSS uygulamalı*. (dördüncü baskı). İstanbul: Sakarya Kitabevi.
- Balcı, A. (2005). *Sosyal bilimlerde araştırma yöntem teknik ve ilkeler*. (beşinci baskı). Ankara: Pegem A. Yayıncılık.
- Bayram, N. (2004). *Sosyal bilimlerde spss ile veri analizi*. Bursa: Ezgi Kitabevi.
- Bindak, R. (2005). Tutum ölçeklerine madde seçmede kullanılan tekniklerin karşılaştırılması. *İnönü Üniversitesi Eğitim Fakültesi Dergisi*, 6, (10), 17-26.
- Büyüköztürk, S. (2004). *Sosyal bilimler için veri analizi el kitabı*. (dördüncü baskı). Ankara: Pegem Akademi Yayıncılık.
- Cohen, L., Manion, L., & Morrison, K. (2007). *Research methods education*. raudledge. Sixth edition. Retrieved March 15, 2013, from www.books.google.com
- Demirhan, G. & Altay, F. (2001). Lise birinci sınıf öğrencilerinin beden eğitim ve spora ilişkin tutum ölçeği II. *Spor Bilimleri Dergisi*, 12, (2), 9-20.
- Erden, M. & Akman, Y. (2006). *Gelişim öğrenme-öğretme*. (onbeşinci baskı). Ankara: Arkadaş Yayınevi.
- Fenercioğlu, E. (2003). *Likert tipi ölçeklere madde seçmede kullanılan Pearson momentler çarpımı korelasyon tekniği ile çok serili korelasyon tekniğinin incelenmesi*. Yayınlanmamış yüksek lisans tezi. Hacettepe Üniversitesi, Sosyal Bilimler Enstitüsü. Ankara.
- Frias C.M. & Dixon R.A., "Confirmatory factor structure and measurement invariance of the memory compensation questionnaire", *Psychological Assessment*. 17(2). pp. 168-178, 2005.
- Güneş, F. (2000). Çocuk kitaplarının okunabilirlik ölçütleri açısından incelenmesi. 1. *Ulusal Çocuk Kitapları Sempozyumu*. A.Ü. Tömer Dil Öğretim Merkezi.
- Gürpınar, B. (2009). *Basketbol ve futbol hakemlerinin karşılaştıkları sportmenlik dışı davranışlar ve bu davranışların çeşitli değişkenler açısından incelenmesi*. Yayınlanmamış doktora tezi. Gazi Üniversitesi, Sağlık Bilimleri Enstitüsü. Ankara
- Güven Ö. (2009). Milli beden eğitimi spor politikası ve altıncı spor şurası. *Türk Yurdu*; Nisan (29), 60-65.
- Karasar, N. (2003). *Bilimsel araştırma yöntemi*. (sekizinci basım). Ankara: Nobel Yayın Dağıtım.
- Keating JW. (2007) Sportsmanship as a moral category. In: Morgan WJ, (Editor) *Ethics in Sport*. pp. 141-152. Human Kinetics
- Mac Callum, R.C. & Austin, J.T. (2000). Applications of structural equation modeling in psychological research. *Annual Review of Psychology*, 51, 201-226

- Marsh H.W. & Balla J., “Goodness of fit confirmatory factor analysis: the effects of sample size and model parsimony”, 1992. Retrieved March 29 ,2013, from <http://www.eric.ed.gov/PDFS/ED349316.pdf>
- Milli Eğitim Bakanlığı. (2008). *İlköğretim beden eğitimi dersi (1 ve 8. sınıflar) öğretmen kılavuz kitabı*. Ankara: Milli Eğitim Bakanlığı Yayınları.
- Miller BW, Roberts GC & Ommundsen Y. (2004). Effect of motivational climate on sportspersonship among competitive youth male and female football players, *Scandinavian Journal of Medicine & Science in Sports*, 14 (3), 193-202.
- Pehlivan, Z. (2004). Fair-play kavramının geliştirilmesinde okul sporunun yeri ve önemi. *SPORMETRE Beden Eğitimi ve Spor Bilimleri Dergisi*, II (2) 49-53.
- Satcher ND. (2006). *Social and moral reasoning of high school athletes and non-athletes*. Unpublished doctoral dissertation. TheUniversity of Southern Mississippi.
- Sezen, G. & Yıldırım, İ. (2003). Profesyonel ve amatör futbolcuların Fair play anlayışları. İ. Yıldırım, P. Doğan & E. E. Erturan (Ed.). *Beden Eğitimi ve Sporda Sosyal Alanlar Kongresi* (10–11 Ekim 2003, Ankara s.13-20) Bildiriler Kitabı. Ankara: Sim Matbaacılık.
- Sönmez, V. & Alacapınar, F.G. (2011). *Örneklendirilmiş bilimsel araştırma yöntemleri*. Ankara: Anı Yayıncılık
- Subramaniam, P.R. & Silverman, S. (2000). Validation of scores from an instrument assessing student attitude toward physical education. *Measurement in Physical Education and Exercise Science*, 4, (1), 29-43.
- Tasi E Fung L. (2005, July). Sportspersonship in youth basketball and volleyball players, *The Online Journal of Sport Psychology*. 7 (2), Retrieved April 17, 2013, from <http://www.athleticinsight.com/Vol7Iss2/Sportspersonship.htm>
- Tavşancıl, E. (2002). *Tutumların ölçülmesi ve SPSS ile veri analizi*. Ankara: Nobel Yayın Dağıtım.
- Tezbaşaran, A. (1997). *Likert tipi tutum geliştirme kılavuzu*. (ikinci baskı). Ankara: Türk Psikologlar Derneği Yayınları.
- Vallerand, RJ, Briere NM, Blanchard CM. & Provencher PJ. (1997). Development and validation of the multidimensional sportspersonship orientations scale. *Journal of Sport & Exercise Psychology*; 19(2): 197-206.
- Wilson, N. & Mc Lean S (1994) *Questionnaire design: a practical introduction*. CoAntrim, University of Ulster Press, Newtown Abbey.
- Yapan, H. T. (2007). *Spor ahlakı*. Gaziantep: Merkez Ofset
- Yıldırım, İ. (1992) “Sporda fair play kavramının tarihsel boyutları”, *Spor Bilimleri II. Ulusal Kongresi Bildirileri* “20-22 Kasım 1992”, Ankara: Hacettepe Üniversitesi Spor Bilimleri ve Teknolojisi Yüksekokulu Yayın No:3, s.394, 398.
- Yıldırım, İ. (2004). Fair play: kapsamı, Türkiye’deki görünümü ve geliştirme perspektifleri. *Gazi Beden Eğitimi ve Spor Bilimleri Dergisi*, 9(4), 3-16.
- Yıldırım, İ. (2005). Fair play eğitiminde beden eğitiminin rolü. *Gazi Beden Eğitimi ve Spor Bilimleri Dergisi*, 5,(1), s.3–16.

- Yıldıran, İ. & Sezen, G. (2006). Beden eğitimi öğretmeni adaylarının sportmenlik ve profesyonellik arasında ikilem barındıran somut örnek olaylara yaklaşımlarının değerlendirilmesi. *Gazi Beden Eğitimi ve Spor Bilimleri Dergisi*, 11,(3), 3-14.
- Yılmaz, V. & Çelik, H.E. (2009). *Lisrel ile yapısal eşitlik modellemesi-1*. Ankara: Pegem A. Yayıncılık