The Study of Preparing a Valid and Reliable Assessment Scale to Determine II. Stage Primary Education Students' and Adults' Multiple Intelligences

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Abstract

The purpose of this study is to prepare a valid and reliable assessment scale to determine II. Stage primary education students' and upper level students' and adults' most dominant intelligence fields according to the theory of Multiple Intelligences developed by Howard Gardner. While preparing items of Multiple Intelligence Scale, not only the theory was studied carefully but also the whole native and foreign Multiple Intelligence Scales were analyzed in terms of behaviors. The Multiple Intelligences Assessment Scale development is a multi-step process; 1- Operationally define core components of the intelligence construct in terms of everyday behaviors that can be described in questions; 2- Expert content review and in-depth interviews with the proposed questions; 3- Data collection and item analysis; 4- Item / scale revision (if necessary); 5- Data collection and item analysis;- repeat step 4, and if necessary repeat step 5. 6- Larger scale data collection with criterion groups - factor analytics studies, subscales analysis 7- Test-retest reliability and multi-informant studies. This investigation was conducted over a three-year period and employed a wide-ranging sample of 228 academicians from different fields of universities and over 965 students from secondary school students from different schools using both quantitative and qualitative methods for the extent, aspect, structure and predictive validity; reliability. Data collection procedures included structured interviews, formal questionnaires, brief open-ended surveys, and focus groups.

The general results in this research is that the dominant intelligence measurument for adults and primary school secondary level and upper level students is reliable and valid. Both expert views and statistical analysis put forward that students and adults can determine the eight intelligence area true and coherent.

Key words: Multiple Intelligent, validity, reliability, adult education, secondary education

Introduction

The purpose of education is not only transmitting information but also participating in the mental, emotional and social development of the individuals. The basis of education is teaching the students how to develop themselves in their lives. Students with various physical, mental and personal features come together in the school environment. All of them have different preferences, interests, learning types, abilities, developmental specialities, backgrounds, strengths and weaknesses. All have a natural learning capacity. They need to be valued, loved and accepted. The most important common characteristic that students have as a human and as a learner is their uniqueness. Starting from the reality which every individual is unique and worthy; it is not possible for a teacher to arrange a learning environment which covers learners' needs without knowing them (Yılmaz, 2002).

In individual differences based learning environment; without ignoring other individual differences, intelligence can be considered as the first and prior characteristics to be considered because it is the most important of all the factors that affect behavioural changes. It can be understood that all individuals' intelligence can not be explained by one or a few ability areas as in the traditional intelligence approach, when considering that intelligence is affected by all individual differences. However, traditional intelligence approach claims that the ability of solving logical and mathematical problems as the most important factor of intelligence (Topses, 2003; Yavuz, 2004) and expects all of the individuals having different characteristics a sole interest of mathematical-logical intelligence area.

The criticism to traditional intelligence approach and research trying to explain intelligence has led to a new view, known as "multiple intelligence", by Howard Gardner (1983) by the end of the twentieth century.

According to this view, people have eight different and indepently woeking ability areas. These are named as; (1) linguistic, (2) logicall-mathematical, (3) musical, (4) spatial, (5) interpersonal, (6) bodily-kinesthetic, (7) intrapersonel and (8) naturalistic. The primary suggestion of multiple intelligence hypohesis is that students will have a higler academic success level, realise their own

learning style and strategy, and be more self confident. Thus; a lot of research based on application of multiple intelligence hypotheses to different education levels and areas has been conducted both in Turkey and many other developed countries. Majority of these works (Hoerr, 1994; Beekman, 1995; Coşkungönüllü, 1998; Demirel, 1998; Adamus, 2000; Elibol, 2000; Mvehlbaver, 2000; Korkmaz, 2001; Fedina, 2002; Saban, 2002; Topses, 2003; Yavuz, 2004) claim that learning and teaching activities based on multiple intelligence are more effective than traditional ones. Many countiries have been trying to reestablish their education system on multiple intelligence bases. As one of these countries Turkey also started multiple intelligence applications in primary schools in 2005-2006 educational years. Although program and course books have rearranged according to this view, it is observed that education applications have not reached to the desired level yet. The lack of information of teachers, administrators, parents, supervisors can be considered as the main reason for this. There are some problems even at "determination of students' dominant intelligence areas" multiple intelligence hypothesis application at schools. Althought the idea suggesting that each intelligence area can be developed to a certain level is one of the main principles of multiple intelligence hypothesis, teachers can not easily find a scientifically valid and reliable measurement device to follow the changes in student's intelligence areas. The validity and reliability of some of these measurement devices is unknown, the results yielded from some others are irrelevant.

As a result; multiple intelligence hypothesis has been given more and more importance and many countries started a multiple intelligence based on education system.The main problem experienced during this transition period is the unspesification of students dominant intelligence areas. Some of the available measuremant devices lead irrelevant results even for the same students and there are not enough research to determine dominant intelligence areas of 6th grade and upper grades and adults.

Because of these reasons, the main purpose of this research is preparing a valid and reliable measurement device to determine of adults, primary school second level and upper grade students' dominant intelligence areas.

Method

Total Field under Survey and Sampling

Research total field consists of 6 grade and upper grade students and adults who are not students. As sampling 965 people (415 primary school, 322 secondary school students and 228 scholars from higher education instutions) from cities of Konya, İstanbul and Ankara in Turkey are used as data source.

Preparation of Scale

The dominant intelligence measurement for adults and primary school second level and upper level students is prepared in a three year period after examining local and international literature by specialists of educational sciences and child developmant. During the preparation process; both multiple intelligence theory examined in a detailed way and local and international multiple intelligence measurements analized for all behaviors in the research area. During the developmental process of the scale; with the help of the positive contributions of the available scales they are tried to be isolated from their mistakes. This scale focuses on 11 basic situations which can be experienced in our daily lives.These situations have been prepared to consider common and widespread behaviours which can be accepted as a certain indicator of multiple intelligence which contains most of the lives of people having any dominant intelligence area and covers common life areas. These are; (1) leisure activities, (2) courses taken by the learner through education period, (3) methods of learning, (4) abilities, (5) devices and materials mostly used in daily life, (6) preferences of play, (7) job or job preferences, (8) most disturbing problems, (9) places which are visited, (10) activities which are easily done and, (11) environments and situations which are hated or disliked. Having whichever intelligence area, every individual has some free time and some information about their ability area can be yielded from their leisure activities for example; individvals with social intelligence has different activities. Similarly; favorite classes of a person is not only a simple behavioural indicator, it requires to consider all of the courses up to that time and thousands of related behaviours and forms an important data source for dominant ability area. Moreover, the courses that individuals with various dominant intelligence areas differs. Thus, it is thought to contribute the determination of ability area. If the individual is succesful in classes, and deals with that ability area in her/his free time activities and uses the materials required by that ability frequently, (and...and...and) that ability area increases cummulatively and can rise to first or second rank among other areas.

Another important point in the preparation process of scale is that each question has been prepared as to control each other for all abilities. The scale does not compare individuals' intelligence with another one. It compares individuals own ability areas and examines them in terms of their ability areas. This is achieved by comparison and control of eight ability areas with each other for 288 times. So it is impossible to make 288 times random selection.

Findings

Due to validity works; extent, aspect, structure and predictive validity has been examined while extent and aspect validity has been made according to specialist view, statistical analysis has been made for structure and predictive validity.

Extent and Aspect Validity

To determine the extent and aspect validity of scale 42 specialists' views has been evaluated. The areas of these specialists are educational psychology, program development, child development, measurement and evaluation, and research methodology. All of the specialists expressed that behaviors in the scale covers 8 dominant intelligence areas, there are no missing parts the scale contains equally rated behaviours for all intelligence areas, behaviours are equalavalent to each other in terms of extent and level, these behaviours are certain indicators for determining individuals dominant ability areas and a clear and comprehensible way of expression is used for 6 grade and upper.

Structure Validity

To determine structure validity, the scale has been applied to 965 students. These students are at different schools and levels. A factor analysis has been made to the data from students. Principal Component Analysis has been used to determine factors and factor load values of the scale. To determine the validity of samples applied; KMO and Bartlett's Test is applied. KMO value (.95) and Bartlett's Test (x^2 =427, 211, p=0,001) which calculated after the test has showed that the sample size is sufficient, applied sample can represent the total field of the research and can be generalised to it.

Table 1 shows factor values related with scale size, Table 2 shows component's explanation rates of variance and Table 3 shows the results of Kaiser-Varimax vertical spin method. The scale's explanation rate of total variance for measuring 8 factors (intelligence area) is 100%. This indicates that the hypotetic structure formed by 8 dominant intelligence areas which take place in the litareture related with dominant intelligence areas is true, are understood by everybody and dominant intelligence scale which is developed to determine dominant intelligence areas formed by 8 factors can calculate this structure precisely and can achieve this goal.

Table 1: Factor Analysis Results of Dominant Intelligence Scale for Adults and Primary School Second Level and Upper Level

Principal Components	Factor Value
Linguistic	1,00
Logical – mathematical	1,00
Musical	1,00
Spatial	1,00
Interpersonal	1,00
Bodily – kinesthetic	1,00
Intrapersonal	1,00
Naturalistic	1,00

It can be seen in Table 1 that factor load value is 1.00 for each component of scale. This result shows that scale is formed by eight factors and it can measure eight dominant intelligence areas precisely.

Table 2: Scale's Sub Sizes and Explanation Rates of Total Variance

Components	Basic	% of Variance	Cumulative
1	1,72	12,86	12,86
2	1,62	12,82	25,68
3	1,32	12,77	38,45
4	1,22	12,65	51,11
5	1,19	12,65	63,75
6	1,07	12,61	76,36
7	1,00	12,08	88,44
8	0,91	11,56	100,00

Table 2 shows that scale is formed by 8 factors, the scale explains 100% of variance with eight factors, and each component contributes to total variance almost equally.

Table 3: Results of Kaiser-Varimax Vertical Rotate Method

Dominant Intelligence Areas	Components							
	1	2	3	4	5	6	7	8
Logical-Mathematical	.94	-.13				-.10	-.17	.22
Intrapersonal	-.13	.94			-.16		-.15	.21
Interpersonal			.95	-.13		-.15	-.18	.10
Linguistic			-.13	.95	-.19	-.17		.14
Bodily-Kinesthetic		-.16		-.18	.95		-.17	
Naturalistic	-.10		-.16	-.18		.93	-.16	.16
Spatial	-.19	-.17	-.20		-.19	-.17	.91	
Musical	-.27	-.25	-.13	-.18		-.19		-.88

Predictive Validity of Scale

The other work for scale validity is predictive validity. The scale is applied to 228 research assistants, lecturers and professor from different faculties of universities. The areas of these people are Veterinary-Agriculture (naturalistic), Teology and Psychological Counseling and Guidance (intrapersonal), Turkish Languange-Foreign Languanges (linguistic), Physical Education (bodily-kinesthetic), Engineering (logical-mathematical), Communication faculty and university community leaders (interpersonal), Painting and Fine Arts (spatial), Conservatory ve Music Teacher Training (musical). The reason of selecting participants among academic stuff is their being selected for and after university education and their limited probability to have their profession. Considering their profession, education areas and abilities; these individuals whose dominant intelligence areas are known or can be predicted. Thus academic stuff whose primary characteristics can be determined clearly are chosen and the relation between their scores from the scale and their dominant intelligence areas is examined in other words; we tried to put forward if dominant intelligence scale finds or predict the chacteristics of these individuals. Table 4 shows to professional field prediction.

Table 4: Results of Variance Analysis of Professional Field Prediction

Department	Intelligences Areas	n	$\bar{x}$	Df	F	p
Turkish Languages	logical-mathematical	58	56.31	8.48	14.558	.001
	intrapersonal	12	66.33	2.73		
	interpersonal	26	59.08	4.13		
	linguistic	36	77.72	7.60		
	bodily-kinesthetic	20	57.20	8.12		
	naturalistic	28	54.79	13.73		
	spatial	24	59.58	5.58		
	musical	24	55.08	7.76		
Engineering	logical-mathematical	58	69.59	8.30	9.715	.001
	intrapersonal	12	54.00	2.10		
	interpersonal	26	54.08	7.25		
	linguistic	36	57.00	11.24		
	bodily-kinesthetic	20	52.20	4.94		
	naturalistic	28	52.00	14.89		
	spatial	24	49.17	11.84		
	musical	24	51.17	8.15		

Department	Intelligences Areas	n	$\bar{x}$	Df	F	p
Music Teaching	logical-mathematical	58	34.45	8.38	38.195	.001
	intrapersonal	12	33.83	5.19		
	interpersonal	26	36.46	9.50		
	linguistic	36	36.00	9.76		
	bodily-kinesthetic	20	39.40	13.88		
	naturalistic	28	33.36	7.82		
	spatial	24	41.75	9.41		
	musical	24	80.75	6.37		
Art Teaching	logical-mathematical	58	39.90	10.45	15.389	.001
	intrapersonal	12	42.50	7.91		
	interpersonal	26	43.92	14.21		
	linguistic	36	46.00	6.44		
	bodily-kinesthetic	20	40.50	10.63		
	naturalistic	28	39.57	12.23		
	spatial	24	75.42	13.41		
	musical	24	46.83	8.79		
Communication	logical-mathematical	58	49.69	5.92	19.623	.001
	intrapersonal	12	44.67	9.05		
	interpersonal	26	76.62	13.20		
	linguistic	36	49.83	7.86		
	bodily-kinesthetic	20	43.60	13.13		
	naturalistic	28	46.36	12.57		
	spatial	24	43.08	9.70		
	musical	24	43.83	6.55		
Colleges of Physical Education	logical-mathematical	58	49.83	10.94	25.879	.001
	intrapersonal	12	38.50	4.37		
	interpersonal	26	46.31	6.59		
	linguistic	36	40.39	10.10		
	bodily-kinesthetic	20	83.00	6.53		
	naturalistic	28	44.57	1056		
	spatial	24	41.75	5.91		
	musical	24	45.42	7.79		
Teology Education	logical-mathematical	58	47.41	7.89	12.152	.001
	intrapersonal	12	81.17	5.19		
	interpersonal	26	48.00	15.03		
	linguistic	36	49.39	11.77		
	bodily-kinesthetic	20	42.70	8.73		
	naturalistic	28	47.21	11.40		
	spatial	24	44.92	10.57		
	musical	24	35.00	8.17		

Department	Intelligences Areas	n	$\bar{x}$	Df	F	p
Veterinary	logical-mathematical	58	41.41	10.41	32.985	.001
	intrapersonal	12	31.83	10.05		
	interpersonal	26	30.77	5.72		
	linguistic	36	35.33	8.42		
	bodily-kinesthetic	20	37.70	10.20		
	naturalistic	28	76.29	9.34		
	spatial	24	39.33	9.56		
	musical	24	37.33	9.53		

The variance analysis results in Table 4 claim that scale can predict the characteristics of academic stuff whose primary ability areas are certain or known. Estimated individuals took place in the first position in all dominant intelligence areas. Results prove not only that the scale has a high level predictive validity but also can lead individuals to university or professional preferences according to dominant intelligence areas.

Works Related With The Scale Reliability

Scale is applied to 737 students in primary and secondary education schools at different grades. For coherent results, test-retest method was applied. Table 5 shows the reliability results yielded by applying it 2 times to the same students in two time periods.

Table 6: Correlation Values

Dominant Intelligence Areas	Test	n	$\bar{x}$	df	r	p
Logical-Mathematical	Test	737	57.2	12.11	.95	0.001
	Retest		56.86	13.34		
Intrapersonal	Test	737	50.27	13.13	.90	0.001
	Retest		50.16	12.91		
Interpersonal	Test	737	47.57	13.41	.95	0.001
	Retest		47.54	13.38		
Linguistic	Test	737	60.64	11.25	.98	0.001
	Retest		60.54	11.67		
Bodily-Kinesthetic	Test	737	48.29	14.34	.97	0.001
	Retest		48.3	14.31		
Naturalistic	Test	737	42.04	16.09	.97	0.001
	Retest		42.07	16.03		
Spatial	Test	737	45.9	14.80	.95	0.001
	Retest		45.51	14.86		
Musical	Test	737	40.83	16.52	.98	0.001
	Retest		40.91	16.49		

The results found are; 0.98 corelation in linguistic scores, 0.95 correlation in logical-mathematical scores, 0.98 correlation in musical scores, 0.95 correlation

in spatial scores, 0.90 correlation in interpersonal scores, 0.97 correlation in bodily-kinesthetic scores, 0.95 correlation in intrepersonal scores, and 0.97 correlation in naturalistic scores. The results show that although the scale was applied in two different time periods, it has coherent results and even at 0.001 significiance level, it has a very high level of significant correlation.

One of the studies to test the reliability of the scale is oriented to compare the dominant intelligence areas of pre-tested students among themselves. With this, it is searched if there are students of high and low levels in each dominant intelligence area and if so, there are significant differeces among them. In other words; for example, it is searched whether there is a significant difference between the students which have low linguistic intelligence and high linguistic intelligence. The aim of this is to determine how the scale distinguishes. After the application of a reliable measurement device, all the students shouldn't get the low or high scores. There should be ones with both low and high scores and unsuccesful ones should have low and the succesful ones should have high scores. Otherwise the scale can not recognize the succesful-unsuccesful or high-low individuals, which shows it is unreliable. So the part who had the lowest %27 and the highest %27 are examined and determined whether they have a significant difference. Table 7 shows the comparisons of individuals who have low and high dominant intelligence area.

Table 7: The Result of t Test Belong to Means of Differences Between Low and High %27 Groups

Intelligence Areas	Groups	n	$\bar{x}$	df	t
Logical-Mathematical	High Group	191	44.11	7.81	-15.69
	Low Group		71.09	6.51	
Intrapersonal	High Group	191	37.31	3.84	-13.49
	Low Group		65.43	11.71	
Interpersonal	High Group	191	33.09	5.27	-16.12
	Low Group		63.06	9.66	
Linguistic	High Group	191	48.00	5.79	-15.76
	Low Group		72.94	7.36	
Bodily-Kinesthetic	High Group	191	34.51	4.76	-13.45
	Low Group		65.03	12.55	
Naturalistic	High Group	191	27.91	3.52	-14.66
	Low Group		61.80	13.71	
Spatial	High Group	191	30.97	5.29	-13.52
	Low Group		62.63	12.80	
Musical	High Group	191	26.26	4.56	-11.91
	Low Group		60.03	16.15	

When the results of t-test in Table 7 it is seen that there is a significant difference of 0,891 between the down (low) and up (high) groups. That put

forwards that the scale can differentiate, for example the students who have lower linguistic intelligence have low, and the ones with high linguistic intelligence have high points.

Results and Suggestions

The general results in this research are that, the dominant intelligence measurement for adults and primary school secondary level and upper level students is reliable and valid.

Both expert views and statistical analysis put forward that students and adults can determine the eight intelligence area true and coherent.

Suggestions

1. This developed measurement can be used for determining dominant intelligence area and in that way;
   - Dominant intelligence of schools can be profiled.
   - The physical possibilities of schools can be improved and new arrengements can be done.
   - Performances of teachers at schools can be evaluated.
   - The multiple intelligence developments of schools can be watched out.
   - All the classes of schools especially the ones that be composed more homogenously.
   - The students can be guided and led for occupations.
   - The students are supplied to see their own intelligence profiles and be aware of their abilitiy areas.
2. This developed measurement can be used for determining the dominant intelligence areas of adults and in that ways;
   - Companies can organize suitable in-service training activities.
   - Adults oriented mass education associations and establishments can organize courses that lead ones personal developments and have them professions.
   - It can be used as an evaluation criterion while choosing an employee for private sector.
3. Using this improved scale, researches to put forward the relationship between different variables and dominant intelligence areas can be done.
4. For the age groups that the scale doesn't include (which are students of pre-school and primary education 1st level) illustrated dominant intelligence scale can be prepared.

References

Adamus, Gregory Stanley. (2000). *The Effects of Exposure to Multiple Intelligences Theory on High School Students.* Unpublished Doctoral Thesis. http://www. umiproquestdigitaldissertation.aat9981535.

Beckman, M. (1996). "*Extend and Enhance Student Learning*", http://www.earlychildhood.com/articles/artmi.html

Coşkungönüllü, R. (1998). *The Effects of Multiple Intelligence Theory on Fifth Graders' Mathematics Achievement,* Master Thesis. Middle East Technical University. June 1998.

Demirel, Ö. (1998), "*Kuramdan Uygulamaya Eğitimde Program Geliştirme*". Kardeş Kitap ve Yayınevi, Ankara.

Elibol, F. (2000). *Anasınıfına Devam Eden Altı Yaş Grubu Çocukların Çoklu Zeka Teorisine Göre Değerlendirilmesi,* Yüksek Lisans Tezi. Hacettepe Üniversitesi, Sağlık Bilimleri Enstitüsü.

Fedina, K. A. (2001). *Teacher Perception of Motivation, Curriculum and Academic Achievement of Gifted Students in Multiple Intelligences Classes and Gifted Education Programs,* (Unpublished Doctoral Thesis).

Gardner, H. (1983). *Frames of Mind: The Theory of Multiple Intelligences.* Basic Books: N.Y.

Hoerr, R. T. (1994). The Multiple Intelligences Approach to Giftedness. *Contemporary Education*, 66, 32-35.

Korkmaz, H. (2001), "Çoklu Zeka Kuramı Tabanlı Etkin Öğrenme Yaklaşımının Öğrencilerin Fen Başarısına ve Tutumlarına Etkisi", *Eğitim ve Bilim Dergisi*, 26; 119.

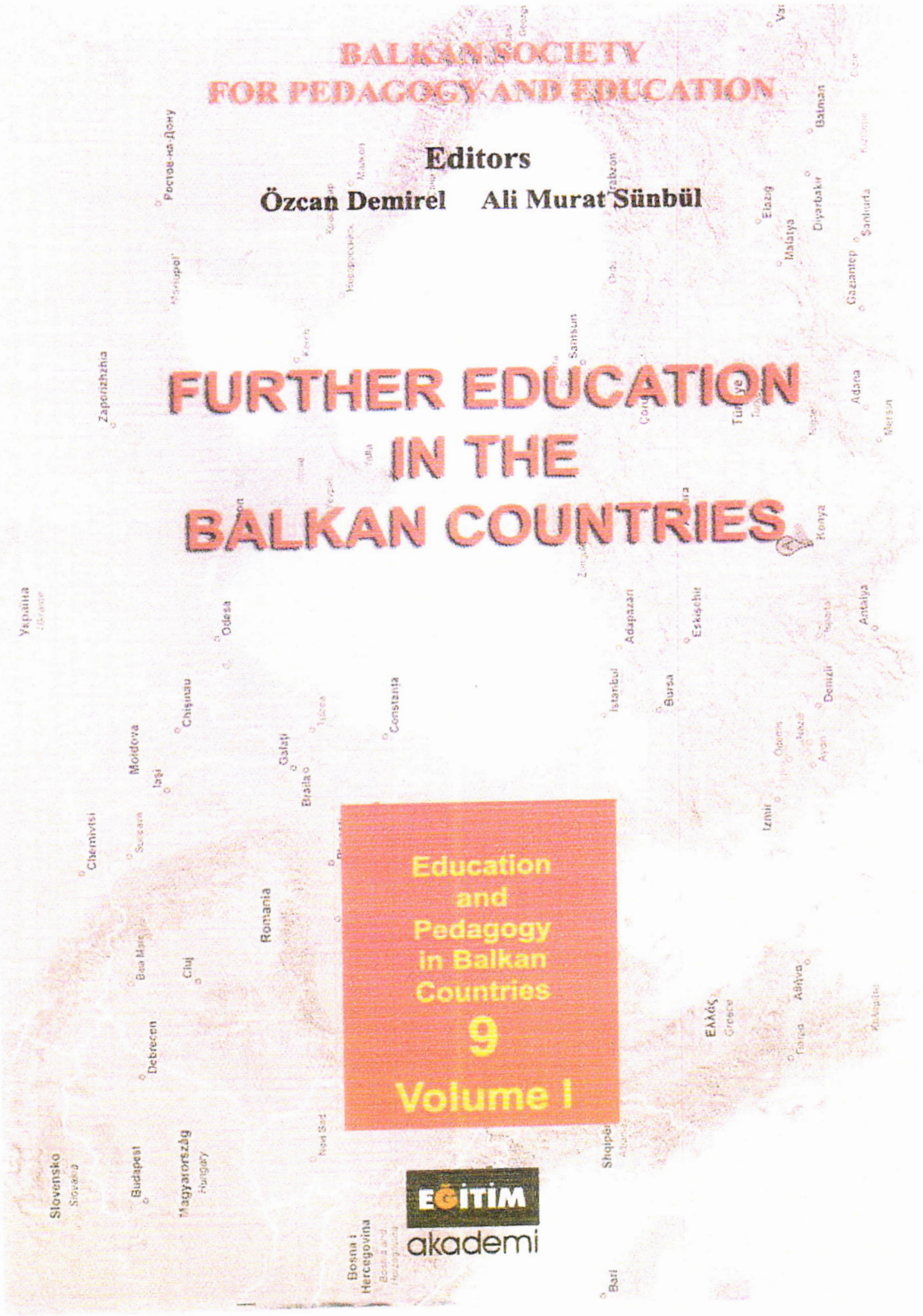
Muehlbauer, C. F. (2000). *The Effects of an Arts-Infused, Multiple Intelligences Program on Mathematical Achievement.* http://www.UMIProquestDigitalDissertation.AAT99932766.

Saban, A. (2002). *Çoklu Zekâ Teorisi ve Eğitim,* Nobel Yayınları, 2. Baskı, Ankara.

Topses, G. (2003). *Gelişim ve Öğrenme Psikolojisi,* Ankara: Nobel Yayınları.

Yavuz, K. E. (2004). *Çoklu Zekâ Teorisi Uygulama Rehberi,* Ceceli Yayınları, Ankara

Yılmaz, G. (2002). *İlköğretim 5. Sınıf sosyal Bilgiler Dersi Vatan ve Millet Ünitesinde Çoklu Zeka Kuramına Göre Geliştirilen Eğitim Durumunun Öğrencilerin Akademik Başarısına Etkisi ve Öğrenci Görüşleri,* Yüksek Lisans Tezi. Yıldız Teknik Üniversitesi Sosyal Bilimler Enstitüsü.


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Adult Education in the Balkan Countries

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