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Analysis of Physical Education and Sports School Football Special Talent Examination via Rasch Model of Measurement: Bartin University Sample

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Abstract: The purpose of this study is to analyze the evaluations of branch members of the jury in football branch examination carried out within the scope of Special Talent Examination of Physical Education and Sports School using Rasch model of measurement. Survey method was used in the study and all the academics and participants in the study were chosen among voluntaries. There are three factors in Rasch Model of measurement and these are: 3 juries (academicians who have expertise in football branch), 6 criteria (competences and skills in football branch) and 223 participants evaluated.

The findings of the study revealed that the applicants with the highest performance based on the criteria set were applicants coded C26, C33, C67, C59, C21, C94 and C17 whilst the applicants with a low performance were C54, C72, C10, C79, C86, C35 and C76. In addition, it was also found that all raters rated below average and that all the ratings of the raters were close to each other. Another finding of the study was that the most difficult competence was “bouncing ball” whilst the easiest was “long pass”.

This study is important in terms of the fact that evaluation criteria of the applicant students who want to get an admission to an undergraduate programme via special skills examination and the necessity of making their standardization. Besides, it is necessary to statistically examine in order to minimize the differences in comments that could arise between raters in their evaluations.

Key Words: Special Talent Examination, Rasch Model of Measurement, Evaluation of Juries, Football, Performance, Competence, Physical Education and Sports School.

Beden Eğitimi ve Spor Yüksekokulu Futbol Özel Yetenek Sınavının Rasch Ölçüm Modeli ile Analizi: Bartın Üniversitesi Örneği

Özet: Bu çalışmanın amacı, Beden Eğitimi ve Spor Yüksekokulu Özel Yetenek Sınavı kapsamında yapılan futbol branşındaki jüri üyelerinin değerlendirmelerini Rasch Ölçüm Modeli kullanılarak incelemektir. Araştırmada tarama yöntemi kullanılmış ve araştırmadaki tüm akademisyenler ve katılımcılar gönüllüler arasından seçilmiştir. Rasch Ölçüm Modeli'nde üç faktör vardır ve çalışmada 3 jüri (futbol dalında uzmanlık sahibi akademisyenler), 6 kriter (futbol branşındaki yeterlik ve beceriler) ve 223 katılımcıdan oluşan bu üç faktör değerlendirilmiştir.

Araştırmanın bulguları; belirlenen kriterlere göre en yüksek performansa sahip adayların C26, C33, C67, C59, C21, C94 ve C17 kodlu adaylar olduğunu ortaya koyarken, düşük performans gösteren adayların C54, C72, C10, C79, C86, C35 ve C76 kodlu adaylar olduğunu ortaya koymuştur. Buna ek olarak, tüm değerlendiricilerin ortalamanın altında derecelendirdiği ve değerlendiricilerin tüm notlarının birbirine yakın olduğu tespit edildi. “Uzun Pas” en kolay yeterlik iken “Top Sektirmek” en zor yeterlik olduğu çalışmanın bir başka bulgusudur.

Bu çalışma, özel yetenek sınavı ile bir lisans programına kabul edilmek isteyen aday öğrencilerin değerlendirilme kriterleri ve bu kriterleri standartlaştırmanın gerekliliği açısından önemlidir. Ayrıca değerlendirme aşamasında değerlendiriciler arasında ortaya çıkabilecek yorumlardaki farklılıkları en aza indirgemek için istatistiksel olarak inceleme yapılması gerekmektedir.

Anahtar Kelimeler: Özel Yetenek Sınavı, Rasch Ölçüm Modeli, Jürilerin Değerlendirmesi, Futbol, Performans, Yeterlik, Beden Eğitimi ve Spor Yüksekokulu.

1. INTRODUCTION

There are certain practices for the process of transition to higher education in Turkey yet the efforts to find solutions to aforementioned issue is ongoing. And one of them is admission of students to branches that require special talents via special talents examination in addition to the transition to higher education examination. Students are admitted to physical education and sports departments through this special talents examination. So, in this respect, the main purpose of this study is to evaluate special talents examination which aims to choose students to physical education and sports departments. Suggestions are made towards making special talents examinations better and choosing more talented students.

The methods of taking students for the Physical Education and Sports Departments can be considered as skill tests. To define skill, it is the ability to learn power movements in a short period of time and react appropriately and quickly in various situations (Sevim, 1992). It depends on each movement to follow each other correctly and to come to the occur with the desired force.

Sporty movements often have practical difficulties in their own right. For the formation of movements, certain muscles contract and start to work with nerve currents. The application of the desired movement of the muscles provides the connection of the nerves giving orders to the muscles from the central nervous system. This system is called coordination (Schweitzer, 2001).

Selection and placement exams for higher education institutions have a great importance in terms of students and quality of education institutions. The fact that the decisions made in the future about the students are correct and appropriate will enable them to receive education according to the achievements and abilities of the students and will make a great contribution to the development of our country in the long run. In this context, it was emphasized that education could be the main aim, thinkable, quick problem solver, skill, attitude and values, personality and social relations as well as the whole developed people (Güzeller & Kelecioğlu, 2006; Yenilmez & Duman, 2008).

Student Selection and Placement Center (ÖSYM) Depending on the principles stated in the Higher Education Programs and the Quota Guidelines, departments can specify their own methods in examinations in order to be able to choose the best among the candidates who apply to enter the special ability examination (Koparan & Öztürk, 2008). However, there is no consensus on the way in which the special ability test is applied. Each university sets the exam type according to its own possibilities (Başpınar & Öğüş, 1997; İnce et al., 2004).

Certain measurement tools are used in measuring objects or features. Above everything, a measurement tool should first measure the feature(s) correctly and should not include unrelated features in the measurement. This means the validity of the measurement tool or measurement criteria (Tan, 2008). Selection and placement examinations carried out once in a year, generally, do not assess the real levels of the individuals related to the assessed variable in a valid and reliable way. Since there are many factors effecting success in such examinations, it is important to look into these factors. Various studies are carried out in order to find out the predictor variables of the selection and placement examinations in Turkey (Doğan & Şahin, 2009).

Different departments of Physical Education and Sports Schools in Turkey admit students through special talents examination every year and applied examination types are identified to choose the most talented students. The ranking is made based on the results of Transition to Higher Education Examination, which is accepted as an indicator of the cognitive level of the individual, weighted high school gpa and results of various motor tests which

assess the psychomotor development level (Yaprak & Durgun, 2009). Considering that students graduating from Physical Education and Sports Departments will work as teachers or trainers, it is an important factor determining the exercising level of the society (Dalkıran et al., 2004).

The validity of the criteria of the examinations conducted to choose students to study at Physical Education and Sports Departments is important in the light of the theoretical information given above. In addition, it is also important because the raters' compliance among each other in these examinations and the reliability of the examinations have a determining role. The purpose of this study is to analyze the evaluations of branch members of the jury in football branch examination carried out within the scope of Special Talents Examination of Physical Education and Sports School using Rasch model of measurement.

2. METHOD

Survey method was used in the study and all Football examination jury members and participants in the study were chosen among voluntaries. There are three factors in Rasch Model of measurement and these are: 3 juries (academicians who have expertise in football branch), 6 criteria (competences and skills in football branch) and 223 participants evaluated.

2.1. Study Group

The study group was 3 academicians (2 Assistant Professors and 1 Research Assistant) working at Physical Education and Sports Department at Bartin University as of 2012 September and 223 candidates to Special Talent Examination at Bartin University Physical Education and Sports Department.

Using this model, the aim was to find out whether the jury members acted biased or not, which competency was performed best and which applicant was more competent depending on these competencies. In Rasch model of measurement the sample is not generalized to the universe (Semerci, 2011). The analysis of the data was made using FACETS analysis programme, offered by Linacre (1993; 2008) in which Rasch model of measurement is used.

2.2. Data Analysis

The Rasch measurement computer program, called FACETS (Linacre, 2002a), was used to examine the level of perfectionism for competitive athletes.The expected Infit and Outfit values were 1.0, which indicated a satisfactory model-data fit. Linacre (2002b) and Lunz, Wright, and Linacre (1990) have proposed a criterion for determining acceptable and unacceptable fit, where any Infit or Outfit value less than 0.5 and greater than 1.5 is considered a misfit. Values greater then 1.5 indicated large variability in scores, while values less than 0.5 reflected too little variation.

3. FINDINGS

This section of the study includes the findings. 3 jury members, 6 football branch competency items and 223 assessed applicants are considered.

An overall calibration map is given below:

Table 1

Calibration Map related to the Football Competencies of the Candidates who took the examination

Logit	+CanCiCates	+Jury	-Competency	RATIN
3	C26			(5)
2	C33			
	C67 C59 C21 C94			
1	C17 C12 C56 C65 C75 C83 C25 C48 C60 C63 C97 C20 C43 C52 C92 C16 C19 C22 C37 C66 C96 C27 C38 C4 C40 C46 C62 C68 C7 C71 C74 C84 C13 C14 C15 C18 C28 C29 C3 C44 C47 C53 C6 C64 C39 C41 C69 C8 C80 C81		Bouncing Ball Shots on target	4
0	C23 C5 C51 C58 C9 C24 C32 C36 C87 C88 C42 C49 C70 C89 C1 C30 C73 C78 C95 C11 C57 C90 C98		Dribbling Success Cross Shots on goal Long Pass	3
	C100 C55 C93 C99 C31 C34 C91			
-1	C2 C45 C61 C77 C50 C82 C85 C35 C76	J1 J2 J3		2
-2	C10 C79 C86 C72			
-3	C54			(1)
Logit	+Candidates	+Jury	-Competency	RATIN

The findings of the study revealed that the applicants with the highest performance based on the criteria set were applicants coded C26, C33, C67, C59, C21, C94 and C17 whilst the applicants with a low performance were C54, C72, C10, C79, C86, C35 and C76.

It was found that all raters rated below average and that all the ratings of the raters were close to each other.

Another finding of the study was that the most difficult competence was “bouncing ball” whilst the easiest was “long pass”.

Table 2
Measurement Report regarding the Applicants who took the Examination

Total Score	Total Count	ObsvC Average	Fair(M) Average	Model Measure	Model S.E.	Infit MnSq	Infit ZStd	Outfit MnSq	Outfit ZStd	Estim. Discrm	Correlation PtMea	Correlation PtExp	Num Candidates
80	18	4.44	4.45	2.98	.33	.63	-.8	.67	-.7	1.20	.42	.13	26 C26
67	18	3.72	3.73	2.02	.23	1.13	.5	1.10	.4	1.03	-.37	.19	33 C33
54	18	3.00	3.00	1.39	.22	.84	-.5	.84	-.5	1.39	.55	.20	67 C67
51	18	2.83	2.83	1.25	.22	.72	-1.0	.73	-1.0	.97	-.31	.20	59 C59
48	18	2.67	2.66	1.10	.22	.79	-.7	.79	-.7	1.18	.36	.20	21 C21
48	18	2.67	2.66	1.10	.22	.65	-1.3	.63	-1.4	1.64	.23	.20	94 C94
47	18	2.61	2.61	1.05	.22	1.21	.8	1.23	.8	.88	-.45	.19	17 C17
43	18	2.39	2.38	.85	.23	.47	-2.1	.50	-1.9	1.46	-.49	.19	12 C12
43	18	2.39	2.38	.85	.23	.47	-2.1	.49	-1.9	1.47	-.47	.19	56 C56
43	18	2.39	2.38	.85	.23	1.51	1.5	1.45	1.3	.61	.56	.19	65 C65
43	18	2.39	2.38	.85	.23	1.82	2.3	1.85	2.3	.06	-.07	.19	75 C75
43	18	2.39	2.38	.85	.23	1.29	.9	1.37	1.2	.60	-.11	.19	83 C83
42	18	2.33	2.33	.79	.24	.37	-2.6	.36	-2.6	1.59	.44	.18	48 C48
42	18	2.33	2.33	.79	.24	.70	-.9	.66	-1.1	1.72	.63	.18	63 C63
42	18	2.33	2.33	.79	.24	1.63	1.8	1.58	1.6	.46	.16	.18	97 C97
41	18	2.28	2.27	.73	.24	1.71	1.9	1.66	1.8	.30	.72	.18	25 C25
41	18	2.28	2.27	.73	.24	1.04	.2	.99	.0	1.10	.57	.18	60 C60
39	18	2.17	2.16	.62	.25	.88	-.2	.90	-.1	.79	-.32	.17	20 C20
39	18	2.17	2.16	.62	.25	2.12	2.7	2.09	2.6	-.01	-.18	.17	43 C43
39	18	2.17	2.16	.62	.25	.28	-3.0	.26	-3.1	1.79	.14	.17	52 C52
39	18	2.17	2.16	.62	.25	1.52	1.4	1.43	1.2	.69	.30	.17	92 C92
38	18	2.11	2.10	.55	.25	1.17	.6	1.10	.4	.98	-.03	.17	22 C22
38	18	2.11	2.10	.55	.25	2.10	2.6	2.04	2.4	.16	.18	.17	96 C96
37	18	2.06	2.05	.49	.26	.25	-3.0	.24	-3.1	1.80	-.20	.17	16 C16
37	18	2.06	2.05	.49	.26	.64	-1.0	.67	-.9	1.21	-.12	.17	19 C19
37	18	2.06	2.05	.49	.26	.69	-.8	.72	-.7	1.13	.21	.17	37 C37
37	18	2.06	2.05	.49	.26	1.39	1.1	1.36	1.0	.65	.72	.17	66 C66
36	18	2.00	1.99	.42	.26	1.59	1.5	1.69	1.7	.29	-.09	.16	4 C4
36	18	2.00	1.99	.42	.26	.27	-2.8	.28	-2.7	1.73	.84	.16	38 C38
36	18	2.00	1.99	.42	.26	1.68	1.7	1.66	1.6	.52	.36	.16	71 C71
36	18	2.00	1.99	.42	.26	.80	-.5	.81	-.4	1.20	.23	.16	74 C74
35	18	1.94	1.94	.35	.27	.93	.0	.99	.0	1.05	.14	.16	7 C7
35	18	1.94	1.94	.35	.27	.73	-.6	.73	-.6	1.12	.33	.16	27 C27
35	18	1.94	1.94	.35	.27	.55	-1.3	.52	-1.4	1.36	-.06	.16	40 C40
35	18	1.94	1.94	.35	.27	.48	-1.6	.46	-1.7	1.44	.22	.16	46 C46
35	18	1.94	1.94	.35	.27	.62	-1.1	.63	-1.0	1.26	-.40	.16	62 C62
35	18	1.94	1.94	.35	.27	.87	-.2	.89	-.2	1.30	.33	.16	68 C68
35	18	1.94	1.94	.35	.27	1.52	1.3	1.67	1.6	.64	-.32	.16	84 C84
34	18	1.89	1.88	.27	.28	.67	-.8	.69	-.8	1.21	-.17	.15	13 C13
34	18	1.89	1.88	.27	.28	.74	-.6	.75	-.6	1.13	.15	.15	14 C14
34	18	1.89	1.88	.27	.28	1.34	.9	1.22	.6	.93	.51	.15	29 C29
34	18	1.89	1.88	.27	.28	.61	-1.1	.62	-1.0	1.27	.05	.15	47 C47
33	18	1.83	1.83	.20	.29	1.08	.3	1.04	.2	.77	.37	.15	3 C3
33	18	1.83	1.83	.20	.29	1.57	1.4	1.44	1.1	.76	.70	.15	6 C6
33	18	1.83	1.83	.20	.29	.55	-1.3	.57	-1.2	1.34	.01	.15	15 C15
33	18	1.83	1.83	.20	.29	1.14	.4	1.16	.5	.71	.21	.15	18 C18
33	18	1.83	1.83	.20	.29	1.50	1.2	1.35	.9	.82	.48	.15	28 C28
33	18	1.83	1.83	.20	.29	1.13	.4	1.18	.5	.67	-.35	.15	44 C44
33	18	1.83	1.83	.20	.29	.82	-.3	.81	-.4	1.05	.22	.15	53 C53
33	18	1.83	1.83	.20	.29	.74	-.6	.71	-.7	1.14	.49	.15	64 C64
32	18	1.78	1.77	.11	.29	.73	-.6	.73	-.6	1.15	.30	.15	8 C8
32	18	1.78	1.77	.11	.29	.72	-.6	.69	-.7	1.13	-.38	.15	39 C39
32	18	1.78	1.77	.11	.29	.77	-.5	.72	-.6	1.10	.12	.15	41 C41
32	18	1.78	1.77	.11	.29	.69	-.7	.66	-.8	1.20	.45	.15	69 C69
32	18	1.78	1.77	.11	.29	.49	-1.5	.47	-1.5	1.39	-.10	.15	80 C80
32	18	1.78	1.77	.11	.29	.95	.0	1.04	.2	.88	-.60	.15	81 C81
31	18	1.72	1.72	.02	.30	3.14	3.6	3.12	3.6	-.22	.01	.14	5 C5
31	18	1.72	1.72	.02	.30	1.02	.1	1.01	.1	.89	.26	.14	9 C9
31	18	1.72	1.72	.02	.30	.99	.1	.97	.0	.92	.34	.14	23 C23
31	18	1.72	1.72	.02	.30	.92	.0	.88	-.1	1.00	.58	.14	51 C51
31	18	1.72	1.72	.02	.30	.31	-2.3	.33	-2.2	1.55	.28	.14	58 C58
30	18	1.67	1.66	-.07	.32	1.05	.2	1.02	.1	1.02	-.13	.14	32 C32
30	18	1.67	1.66	-.07	.32	1.15	.4	1.13	.4	.82	.26	.14	87 C87
30	18	1.67	1.66	-.07	.32	.89	-.1	.90	-.1	1.06	.50	.14	88 C88
29	18	1.61	1.61	-.18	.33	1.01	.1	1.01	.1	.97	.42	.13	24 C24
29	18	1.61	1.61	-.18	.33	1.01	.1	1.09	.3	.88	-.45	.13	36 C36
28	18	1.56	1.55	-.29	.34	.50	-1.3	.51	-1.2	1.31	.24	.13	42 C42
28	18	1.56	1.55	-.29	.34	.46	-1.4	.47	-1.4	1.35	.46	.13	49 C49
28	18	1.56	1.55	-.29	.34	1.75	1.6	1.71	1.5	.57	-.10	.13	70 C70
28	18	1.56	1.55	-.29	.34	.80	-.3	.80	-.3	1.07	-.12	.13	89 C89
27	18	1.50	1.50	-.41	.36	2.88	3.0	2.78	2.9	.30	.15	.12	1 C1
27	18	1.50	1.50	-.41	.36	.51	-1.2	.52	-1.2	1.30	.49	.12	30 C30
27	18	1.50	1.50	-.41	.36	.55	-1.1	.57	-1.0	1.25	.24	.12	73 C73
27	18	1.50	1.50	-.41	.36	1.38	.9	1.36	.8	.73	.00	.12	78 C78
27	18	1.50	1.50	-.41	.36	.59	-.9	.61	-.9	1.21	.02	.12	95 C95
26	18	1.44	1.44	-.55	.38	1.48	1.0	1.44	1.0	.75	.19	.11	11 C11
26	18	1.44	1.44	-.55	.38	.71	-.5	.73	-.5	1.10	-.30	.11	57 C57
26	18	1.44	1.44	-.55	.38	.53	-1.1	.52	-1.1	1.29	.71	.11	90 C90
26	18	1.44	1.44	-.55	.38	.87	-.1	.81	-.3	1.08	.37	.11	98 C98
25	18	1.39	1.39	-.70	.40	1.46	1.0	1.63	1.3	.70	-.43	.11	55 C55
25	18	1.39	1.39	-.70	.40	1.25	.6	1.19	.5	.92	.45	.11	93 C93
25	18	1.39	1.39	-.70	.40	.77	-.4	.80	-.3	1.05	-.35	.11	99 C99
25	18	1.39	1.39	-.70	.40	.74	-.4	.77	-.4	1.08	-.19	.11	100 C100
24	18	1.33	1.33	-.88	.43	.71	-.5	.72	-.5	1.12	.26	.10	31 C31
24	18	1.33	1.33	-.88	.43	.74	-.4	.72	-.4	1.10	.18	.10	34 C34
24	18	1.33	1.33	-.88	.43	.69	-.5	.66	-.6	1.15	.43	.10	91 C91
23	18	1.28	1.27	-1.08	.47	.77	-.3	.76	-.3	1.08	.23	.09	2 C2
23	18	1.28	1.27	-1.08	.47	1.29	.6	1.32	.7	.87	-.17	.09	45 C45
23	18	1.28	1.27	-1.08	.47	.85	-.1	.91	.0	1.00	-.29	.09	61 C61
23	18	1.28	1.27	-1.08	.47	.80	-.2	.79	-.2	1.06	.09	.09	77 C77
22	18	1.22	1.22	-1.33	.52	1.37	.8	1.32	.7	.92	.16	.08	50 C50
22	18	1.22	1.22	-1.33	.52	1.37	.7	1.33	.7	.92	.16	.08	82 C82
22	18	1.22	1.22	-1.33	.52	.90	.0	.98	.1	.98	-.31	.08	85 C85
21	18	1.17	1.16	-1.64	.60	.83	.0	.74	-.2	1.07	.47	.07	35 C35
21	18	1.17	1.16	-1.64	.60	.89	.0	.86	.0	1.03	.11	.07	76 C76
20	18	1.11	1.11	-2.07	.72	2.01	1.3	2.30	1.5	.84	-.19	.06	10 C10
20	18	1.11	1.11	-2.07	.72	.94	.1	1.00	.2	.99	-.08	.06	79 C79
20	18	1.11	1.11	-2.07	.72	1.97	1.3	1.89	1.2	.88	.08	.06	86 C86
19	18	1.06	1.05	-2.79	1.01	.95	.2	.85	.1	1.02	.19	.04	72 C72
18	18	1.00	1.02	(-4.01	1.83)	Minimum					.00	.00	54 C54
33.0	18.0	1.83	1.83	-.04	.35	1.01	-.1	1.01	-.1		.12		Mean (Count: 100)
9.5	.0	.53	.53	.95	.20	.51	1.3	.51	1.3		.33		S.C. (Population)
9.5	.0	.53	.53	.96	.20	.52	1.3	.51	1.3		.33		S.C. (Sample)

RMSE .36 Separation 2.21 Reliability .83
(all same) chi-square: 505.5 sd: 99 p: .00
(normal) chi-square : 69.4 sd: 98 p: .99

In Rasch analysis, the reliability coefficient is 0.83. This result indicates with which reliability applicants are ranked. When "There are significant differences in terms of competences" hypothesis belonging to fixed impact with 2.21 discrimination index and 0.83 reliability coefficient was tested via chi-square (x^2=505.5, sd=99, p=0.00), the null hypothesis was rejected. In this sense, there are statistically significant differences among the applicants. The most competent applicants was C26 whilst the least competent one was C54. And the order to the applicants is given in Table 2.

Table 3

Comparison of the Jury Members' Strictness/ Generosity

Total Score	Total Count	Obsvd Average	Fair(M) Average	Model Measure	Model S.E.	Infit MnSq	Infit ZStd	Outfit MnSq	Outfit ZStd	Estim. Discrm	Correlation PtMea	Correlation PtExp	N Jury
1117	600	1.86	1.73	-1.31	.05	1.11	1.5	1.12	1.6	.90	.49	.51	3 J3
1101	600	1.84	1.70	-1.36	.05	.98	-.2	1.03	.4	.99	.49	.51	1 J1
1084	600	1.81	1.68	-1.40	.05	.91	-1.3	.87	-1.8	1.11	.54	.50	2 J2
1100.7	600.0	1.83	1.70	-1.36	.05	1.00	.0	1.01	.1		.51		Mean (Count: 3)
13.5	.0	.02	.02	.04	.00	.08	1.2	.10	1.4		.03		S.D. (Population)
16.5	.0	.03	.03	.04	.00	.10	1.5	.13	1.7		.03		S.D. (Sample)

RMSE .05 Separation .00 Reliability .00
RMSE .05 Separation .00 Reliability .00
(all same) chi-square: 1.4 d.f.: 2 sig.: .48
(normal) chi-square: .8 d.f.: 1 sig.: .36

The comparison of the jury members' strictness/generosity is given in Table 3. When the "There are differences in jury members' or in other words, raters' strictness and generosity" hypothesis belonging to fixed impact with 0.00 discrimination index and 0.00 reliability coefficient was tested via chi-square (x^2=1.4, sd=2, p=0.48) the null hypothesis was accepted. This indicates that there are no statistically significant differences in the strictness/generosity of the 3 jury members.

Table 4

Competency Statistics used in Evaluations

Total Score	Total Count	Obsvd Average	Fair(M) Average	Model Measure	Model S.E.	Infit MnSq	Infit ZStd	Outfit MnSq	Outfit ZStd	Estim. Discrm	Correlation PtMea	Correlation PtExp	N Competency
503	300	1.68	1.56	.26	.08	.80	-2.0	.76	-2.2	1.15	.53	.47	2 Bouncing Ball
516	300	1.72	1.60	.18	.08	1.07	.7	1.12	1.0	.96	.48	.48	5 Shots on target
557	300	1.86	1.73	-.04	.07	1.09	.9	1.10	.9	.91	.45	.50	6 Success Cross
560	300	1.87	1.74	-.06	.07	1.14	1.4	1.28	2.5	.82	.42	.50	1 Dribbling
567	300	1.89	1.76	-.10	.07	1.00	.0	.96	-.4	1.04	.54	.51	4 Shots on goal
599	300	2.00	1.86	-.25	.07	.89	-1.3	.83	-1.8	1.13	.57	.52	3 Long Pass
550.3	300.0	1.83	1.71	.00	.07	1.00	.0	1.01	.0		.50		Mean (Count: 6)
32.2	.0	.11	.10	.17	.00	.12	1.3	.18	1.7		.05		S.D. (Population)
35.2	.0	.12	.11	.19	.00	.13	1.4	.20	1.9		.06		S.D. (Sample)

Model, RMSE .07 Separation 2.14 Reliability .82
Model, RMSE .07 Separation 2.39 Reliability .85
(all same) chi-square: 32.7 d.f.: 5 sig. : .00
(normal) chi-square: 4.3 d.f.: 4 sig. : .36

Table 4 includes statistics of the competency difficulty analysis used in evaluating the applicants who took the examination. When "There are significant differences in the difficulty of the competences used in evaluating the applicants" hypothesis belonging to fixed impact with 2.39 discrimination index and 0.85 reliability coefficient was tested via chi-square (x^2=32.7, sd=5, p=0.00), the null hypothesis was rejected. In this respect, there are not statistically significant differences in the difficulty of the competences used in evaluating the applicants. Whilst it was "bouncing ball" "hitting the target" that the applicants had difficulty while doing, the ones that they easily did were "crossing the ball", "dribbling", "shooting to the goal" and "long pass". Based on the findings it was found that the most difficult competence was "bouncing ball" whilst the easiest was "long pass".

Table 5
Interaction Analysis of the Jury Members and Evaluated Candidate Students

Observd Score	Expctd Score	Observd Count	Obs-Exp Average	Bias Size	Model S.E.	t	d.f.	Prob.	Infit MnSq	Outfit MnSq	Candidates Sq	Num	Cand.	measr	N	Jury Ju	measr
8	11.47	6	-.58	-1.19	.75	-1.58	5	.1752	.7	.6	106	7	C7	.35	2	J2	-1.40
7	10.18	6	-.53	-1.62	1.04	-1.56	5	.1788	.8	.7	108	9	C9	.02	2	J2	-1.40
6	9.46	6	-.58	-2.56	1.77	-1.45	5	.2078	.1	.1	286	89	C89	-.29	3	J3	-1.31
8	10.84	6	-.47	-1.03	.75	-1.38	5	.2265	2.1	2.5	278	81	C81	.11	3	J3	-1.31
7	9.46	6	-.41	-1.39	1.04	-1.35	5	.2361	1.0	1.1	267	70	C70	-.29	3	J3	-1.31
6	8.43	6	-.40	-1.98	1.64	-1.21	5	.2801	.1	.1	296	99	C99	-.70	3	J3	-1.31
6	8.08	6	-.35	-1.83	1.66	-1.11	5	.3190	.1	.1	288	91	C91	-.88	3	J3	-1.31
7	8.57	6	-.26	-1.05	1.04	-1.01	5	.3590	.9	.8	196	98	C98	-.55	2	J2	-1.40
6	7.39	6	-.23	-1.54	1.79	-.86	5	.4275	.1	.1	248	50	C50	-1.33	3	J3	-1.31
6	7.34	6	-.22	-1.52	1.80	-.84	5	.4378	.1	.1	84	85	C85	-1.33	1	J1	-1.36
6	7.28	6	-.21	-1.00	1.44	-.69	5	.5190	.1	.1	180	82	C82	-1.33	2	J2	-1.40
7	6.35	6	.11	1.10	1.04	1.07	5	.3351	.9	.8	269	72	C72	-2.79	3	J3	-1.31
8	6.70	6	.22	1.15	.75	1.53	5	.1873	2.0	2.3	208	10	C10	-2.07	3	J3	-1.31
8	6.70	6	.22	1.15	.75	1.53	5	.1873	.8	.9	276	79	C79	-2.07	3	J3	-1.31
8	6.67	6	.22	1.19	.75	1.58	5	.1743	1.9	1.8	85	86	C86	-2.07	1	J1	-1.36
11.1	11.06	6.0	.00	-.05	.61	.02			.9	.9	Mean (Count: 297)						
3.4	3.14	.0	.20	.46	.30	.63			.6	.6	S.D. (Population)						
3.4	3.15	.0	.20	.46	.30	.63			.6	.6	S.D. (Sample)						

(all) chi-square: 118.0 d.f.: 297 sig. : 1.00

Jury member J2 gave 8 points to applicant C7 while s/he should have given 11 points and showed an unexpected behavior. In addition, jury member J2 gave 7 points to applicant C9 while s/he should have given around 10 points and again showed an unexpected behavior. So it can be said that jury member J2 only showed an unexpected rating performance for 1 applicant among 223 candidates.

Furthermore, jury member J1 gave 8 points to applicant C86 while s/he should have given almost 6 points and thus, made a generous rating. Similarly, jury member J3 gave 8 points to applicant C79 while s/he should have given almost 6 points and thus, made a generous rating.

It was only 2 members of the jury among the three of them who made an unexpected rating towards 1 candidate each among 223 candidates.

4. RESULT AND DISCUSSION

The findings of the study revealed that all raters rated below average and that all the ratings of the raters were close to each other. This finding is an indicator that the jury members showed a consistent and balanced rating performance.

Another finding of the study was that the most difficult competence was “bouncing ball” whilst the easiest was “long pass”. Based on this finding, it is possible to say that the difficulty of the rating criteria was different and that the examination was affirmative in the evaluation dimension. In this respect, there are statistically significant differences among the applicants. The most competent applicant was C26 whilst the least competent was C54. One of the aims of special talent examination is to choose the most competent one. According to these finding, different results for different applicants increases the reliability of the evaluation.

When we look into the comparison of the strictness/generosity of the jury members, it is seen that there is no statistically significant difference in the strictness/generosity of the 3 jury members. In the light of this result, it is possible to say that the evaluation performances of the jury members are compatible and had a balanced impact on the results.

The results of the competency/difficulty analysis used in evaluating the applicants who took the examination; there is no statistically significant difference. Whilst it was “bouncing ball” “shoots on target” that the applicants had difficulty while doing, the ones that they easily did were “success cross”, “dribbling”, “shooting to the goal” and “high pass”. Based on the findings it was found that the most difficult competence was “keepy uppy” whilst the easiest was “high pass”.

According to the results of the evaluation, Jury member P2 gave 8 points to 1 applicant while s/he should have given 11 points and showed an unexpected behavior. In addition, jury member P2 gave 7 points to 1 applicant while s/he should have given around 10 points and again showed an unexpected behavior. Also, jury member P1 gave 8 points to 1 applicant while s/he should have given almost 6 points and thus, made a generous rating. Similarly, jury member P3 gave 8 points to 1 applicant while s/he should have given almost 6 points and thus, made a generous rating.

Based on this finding, it is seen that there is an unexpected evaluation with regards to the ratings of 4 applicants among a total of 223 applicants who attended the examination. And this different rating in 4 applicants among 223 makes up only a small percent (1.8%).

4.1. Suggestions

When we look at the studies conducted as a result of the literature survey on the subject, Kayri (2006) tried to determine the relation between sport ability and academic success and environmental factors in special talent exams. A study was conducted to examine the independent variables (OSS score, weighted secondary achievement score, gender, paternal profession, maternity profession, region, high school graduation point) affecting the number of shuttles applied in the exam and to make parameter estimates. A linear relationship between the individual's ability of sport and academic achievement (Kayri, 2006).

In the study of Tekin and Sanioğlu (2004), the aim of the School of Physical Education and Sports was to determine the internal and external factors that affect the successes and failures of the winners and the winners. It has been understood that in the winning and non-winning candidates, physiological and psychological factors affect success and failure, but the same effect is not at the same level, which will lead to different results. As a research result; Physiological and psychological factors are influential in both successful and unsuccessful candidates, but the lack of sensation is not in favor of the effect (Tekin & Sanioğlu, 2004).

Regarding the application conditions of the exam, the candidates stated that the instructors assigned in the special talent exams ensure the exams to be carried out in a healthy manner and that the physical environment where the special ability exams are made is sufficient. Candidates have also been unaware of the difficulties they face with accommodation, eating, drinking during special talent exams, and the fact that the screening of special skills tests by parents and ladies has increased the motivation of the candidates and the objectivity of the exam. In other words, they reported positive and negative opinions about 50% (Öztürk, 2008). Depending on the outcome of the above study, we have also found that there are different variables in our study that can affect the results of the exam. In other work to be done, it can be evaluated what these variables might be and how to suggest them.

It was found that the regression equations established to determine the effects of OSS, AOBP, YP, shuttle running and coordination skills course scores on academic achievement were significant, equations were entered by at least one variable, there was no multi-link and autocorrelation that would cause the regression assumptions to fail (Zırhlıoğlu & Atlı, 2011).

It should be considered that the jury members in branch examinations at higher education institutions where Special Talents Examinations are carried out should have the required evaluation competency.

It is important to take the necessary precautions towards minimizing the possible mistakes during Special Talents Examinations.

The dimensions of branch examinations should be diversified and thus, applicants should be given wider areas and more equality of opportunity.

The necessity of preparatory study for the test parameters should be emphasized. Indicative factors relating to the branch criteria in Special Talents Examination can be

determined through pilot studies and the test could be implemented based on the determined variables.

REFERENCES

Başpınar, E. & Öğüş, E. (1997). Özel Yetenek Sınavı ile Öğrenci Alan Üniversitelerde Puanların Değerlendirilmesi için Yöntemler. *Beden Eğitimi ve Spor Bilimleri Dergisi*. 2(1), 33-50.

Dalkıran, O., Altıntaş, A., Gündüz, N., Sunay, H. & Akgül, M. (2004). Ankara İli Devlet-Özel İlk ve Orta Öğretim Okullarındaki Beden Eğitimi Öğretmenlerinin Ders Dışı Etkinliklerinde Kapalı Spor Alanlarının Etkin Kullanımı Üzerine Görüşleri. *SPORMETRE Beden Eğitimi ve Spor Bilimleri Dergisi.* 2(3), 109-118.

Doğan, N. & Şahin, A.E. (2009). Öğretmen Adaylarının İlköğretim Okullarına Atanma Durumunu Yordayan Değişkenler. *İnönü Üniversitesi Eğitim Fakültesi Dergisi*. 10(3), 183-199.

Güzeller, C. & Kelecioğlu, H. (2006). Ortaöğretim Kurumları Öğrenci Seçme Sınavının Sınıflama Geçerliği Üzerine Bir Çalışma. *Hacettepe Üniversitesi Eğitim Fakültesi Dergisi*. 30:140-148.

İnce, G., Zülkadiroğlu, Z. & Budak, D.B. (2004). Çukurova Üniversitesi Beden Eğitimi ve Spor Yüksekokulu Özel Yetenek Sınav Adaylarının I. ve II. Hak Sonuçlarının Karşılaştırılması. *SPORMETRE Beden Eğitimi ve Spor Bilimleri Dergisi.* 2(1), 5-10.

Kayri, M. (2006). *Özel yetenek sınavında başarının modellenmesi ve risk faktörünün modellenmesi (Yayınlanmamış Doktora Tezi).* Yüzüncü Yıl Üniversitesi, Van.

Koparan, Ş. & Öztürk, F. (2008). Uludağ Üniversitesi Eğitim Fakültesi Beden Eğitimi ve Spor Bölümü Özel Yetenek Sınav Verilerinin Cinsiyet ve Alanlarına Göre Karşılaştırılması. *Gazi Beden Eğitimi ve Spor Bilimleri Dergisi.* XIII, 1:39-50.

Linacre, J.M. (1993). *Generalizability theory and many facet Rasch measurement. Annual Meeting of the American Educational Research Association.* (April, 13, 1993), (ED 364 573). Atlanta Georgia.

Linacre, J.M. (2002a). FACETS [Computer program, version 3.4] MESA Press, Chicago, IL

Linacre, J.M. (2002b). What do Infit and Outfit, mean-square and standardized mean? Rasch Measurement Transactions, 16, p. 878

Linacre, J.M. (2008). *A user's guide to winsteps, ministep Rasch-model computer programs, program manuel*. 3.66, P.O. Box.811322, Chicago IL 60681-1322.

Lunz, M.E. Wright, B.D. Linacre J.M. (1990). Measuring the impact of judge severity of examination scores Applied Measurement in Education, 3 (1990), pp. 331–345

Öztürk, M.E. (2008). Atatürk Üniversitesi Beden Eğitimi ve Spor Özel Yetenek Sınavının Öğretim Elemanları ve Öğrenci Görüşleri Açısından İncelenmesi, Yayımlanmamış Doktora Tezi, Atatürk Üniversitesi, Sosyal Bilimler Enstitüsü.

Schweitzer, K. (2001). Preattentive processing and cognitive ability, Intelligence. 29(2), 169-174.

Semerci, Ç. (2011). Doktora Yeterlikler Çerçevesinde Öğretim Üyesi, Akran ve Öz Değerlendirmelerin Rasch Modeliyle Analizi. *Eğitimde ve Psikolojide Ölçme ve Değerlendirme Dergisi.* 2(2), 164-171.

Sevim, Y. (1992). Kondisyon antrenmanı. Ankara: Gazi Büro Kitapevi.

Tan, Ş. (2008). *Öğretimde Ölçme ve Değerlendirme.* Ankara: Pegem Akademi.

Tekin, M. & Sanioğlu, A. (2004). Selçuk Üniversitesi Karaman beden eğitimi ve spor yüksekokulunu kazanan ve kazanamayan adayların başarılarının ve başarısızlıklarının değerlendirilmesi. *S.Ü. Eğitim Fakültesi Yayınları,* Konya.

Yaprak, Y. & Durgun, B. (2009). Besyo Özel Yetenek Sınavına Giren Gençlerin, Yaptıkları Spor Dallarına Göre Antropometrik Özelliklerinin Karşılaştırılması. *Niğde Üniversitesi Beden Eğitimi ve Spor Bilimleri Dergisi.* 3(2), 120-130.

Yenilmez, K. & Duman, A. (2008). İlköğretimde Matematik Başarısını Etkileyen Faktörlere İlişkin Öğrenci Görüşleri. *Manas Üniversitesi Sosyal Bilimler Dergisi.* 19:251-268.

Zırhlıoğlu, G. & Atlı, M. (2011). Beden Eğitimi Bölümü Özel Yetenek Sınavı Puanlarının Akademik Başarı Üzerindeki Yordama Geçerliği. *Eğitim ve Bilim Dergisi.* 36(161), 176-185.