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# ANALYSIS OF STUDENT SELECTION FOR SPORT SCIENCES FACULTIES: THE CASE OF SIVAS REPUBLIC UNIVERSITY, TURKEY ${ }^{\text {i }}$ 

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#### Abstract

: The interest in Physical Education and Sports Departments in Turkey is increasing every year and the number of faculties and colleges providing education in this field is increasing day by day. Special aptitude exams are held for student recruitment and the physical abilities of the candidates are tested in these exams. In Sivas Cumhuriyet University, the School of Physical Education and Sports was transformed into the Faculty of Sports Sciences. There are Physical Education and Sports Teaching, Coaching Education, and Sports Management departments within the faculty. Student admission is done by special aptitude exam every year. In recent years, there has not been a unity in the examinations of Physical Education and Sports Schools throughout Turkey, so there is a need for a scientific evaluation of the examination systems. In this study, the accuracy of different exam systems in our country is investigated and the effect of exam parameters on passing the exam is examined.


Keywords: sport, exam, physical education, analysis

## 1. Introduction

Although the concept of Physical Education and Sports appeared as leisure time evaluation in previous years, today it has taken its place in our daily lives as a very important formation. Today, sport has started to be perceived as a cultural phenomenon with socio-economic dimensions. Sports are used in different fields for different purposes.

More than half of Turkey's 85 million population is young. There are 22.000 coaches and nearly 15.000 Physical Education Teachers in our country (Abanoz A.R.,

[^0]1998). These numbers are much higher in developed countries. The inadequacy of the sports policy implemented by the state and the crisis environment in the country negatively affect the interest in sports. Despite these unfavorable conditions, Physical Education and Sports interest, in their departments, is increasing exponentially every year. Parallel to this, the School of Physical Education and Sports has been opened in almost every university in Turkey. This number is increasing day by day.

Today, more than 100 faculties and colleges provide education in this field. Students are admitted to the Faculties of Sports Sciences and Schools of Physical Education and Sports with special aptitude exams held by universities according to the Basic Aptitude Test (TYT) of the Student Selection and Placement Center (ÖSYM). In special aptitude exams, the physical abilities of the candidates are determined by various tests. As a result, it is aimed to select the candidates who are most likely to become Physical Education Teachers, Coaches, and Sports Managers.

In the study conducted by İnce et al. (2004) on the comparison of the trial rights given in the exams, it was found that the success scores obtained by the candidates in their second attempts were higher than the scores they obtained in their first attempts and reported that this change was statistically significant. In the research conducted by Caz (2018) on the opinions of the candidates participating in the special talent entrance exam about the exam, the candidates reported that they stated that it was correct to give double rights for the exam. Yıldız et al. (2015) made some suggestions such as extending the coordination threshold period and giving three attempts based on the findings of the study on the evaluation of special talent exam results.

Parlakkılıç (2017), in his study titled "Investigation of special aptitude exams of faculties of sports sciences (Istanbul University example)", stated that it is advantageous for candidates who want to be a student in faculties of sports sciences and physical education and sports colleges to have high YGS scores. Çamliyer et al. (1999) stated that when recruiting students to physical education and sports departments, not only their physical abilities but also their university exam success should be taken into consideration. In the literature, it is reported that the methods used to evaluate performance mostly measure the ability to change speed and direction, so it is insufficient to measure all factors that meet this concept, especially cognitive factors (Simonek et al., 2016; Zouhal et al., 2018).

Ağaoğlu et al. (2009) reported that low body mass index had a negative effect on 1500 -meter running performance in their study on candidates entering the special aptitude exam of the Physical Education and Sports Department. Karaman et al. (2020) reported in their study on the relationship between balance, jump performance, and physical activity level in students in the faculty of sports sciences that vertical jump performance increased with increasing physical activity, and an increase in jump speed, strength, and power was observed with an increase in vertical jump height. Kayri and Okut (2008) reported in their study that candidates with high shuttle scores in male and female students were more likely to be successful in skill coordination performance, and
since there is no study on the same subject, it is important to repeat the similar study in different places and years in terms of more reliable modeling of success.

In Sivas Cumhuriyet University School of Physical Education and Sports in 20012002 academic year, $100 \mathrm{~m}, 1500 \mathrm{~m}$ (male candidates), and 800 m (female candidates) runs, coordination-skills test, and vertical jump tests were applied to the candidates. Placement was made by adding the university exam score, weighted secondary education achievement score and graduated field scores to the scores obtained. There were 366 male and 133 female applicants to the Department of Physical Education Teaching and 102 male and 32 female applicants to the Department of Coaching Education. As a result of the exam, 30 male and 20 female students were entitled to enroll in the Department of Physical Education Teaching and 20 male and 10 female students were entitled to enroll in the Department of Coaching Education.

In recent years, there has not been a nationwide consensus among the exams of the School of Physical Education and Sports. For this reason, there is a great need for scientific evaluation and analysis of the exams in order to find the most accurate examination system. In the study conducted by Altın M. et al., it was stated that there is a heterogeneous and unstable structure among universities in special aptitude exam systems, procedures, and practices and that the measurement and test batteries used in the exams, exam areas, and stages differ in all universities. Since there are no significant differences in the examination methods applied in this field from the past to the present, this study, which is considered to be an up-to-date study, aims to determine which of the different examination systems in our country is more accurate and which of the parameters used in the exams are more accurate and to determine the effects of the parameters used in the exams on passing the exam.

## 2. Material and Method

In the 2001-2002 academic year, a total of 468 male and 165 female candidates, 366 male and 133 female candidates applied to the Physical Education Teaching Department, and 102 male and 33 female candidates applied to the Coaching Education Department of Cumhuriyet University School of Physical Education and Sports. All candidates were included in the study. Candidates who applied for the exam were applied $100 \mathrm{~m}, 800 \mathrm{~m}$ (women), and 1500 m (men) running, vertical jump, coordination, and skill test.

## 3. Statistical Analysis

In this study, a data table was created in SPSS statistical package program by using the results of the 100 m run, $800 \mathrm{~m}, 1500 \mathrm{~m}$ run, vertical jump, coordination and skill test of all candidates who applied to Cumhuriyet University School of Physical Education and Sports Special Talent Examination.

The Mann-Whitney U Test was used to test whether the difference between the means of the test parameters of the winning and non-winning female candidates in the

Department of Coaching Education was significant or not (since $n<30$ ). The "Significance Test of the Difference Between Two Means" was used to test whether the difference between the means of the test parameters of the winning and non-winning male candidates in the Department of Coaching Education was significant or not. The "Significance Test of the Difference between Two Means" was used to test whether the difference between the means of the exam parameters of the winning and non-winning male and female candidates in the Department of Physical Education Teaching was significant.

The amount, direction, and significance of the relationship between the exam parameters were determined with the help of a correlation matrix. The research is a descriptive and cross-sectional study since it was conducted in a certain period of time.

## 4. Results

When the vertical jump scores of male and female candidates who won and did not win the Physical Education Teacher Education Department were compared, the difference was found to be significant (Table 1), ( $\mathrm{p}<0.05$ ).

Table 1: Comparison of vertical jump scores of male and female candidates who passed and failed the exam in the Department of Physical Education Teaching

|  |  | n | $\overline{\mathbf{x}}$ | $\pm$ S |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Physical Education Teacher. <br> Vertical jump (cm) | Winner Male | 30 | 57,90 | 0,89 | $\begin{aligned} & \mathrm{t}=5.42 \\ & \mathrm{p}<0.05 \end{aligned}$ |
|  | Loser Male | 336 | 29,33 | 1,57 |  |
|  | Winning Woman | 20 | 47,00 | 0,99 | $\begin{aligned} & \mathrm{t}=3.90 \\ & \mathrm{p}<0.05 \end{aligned}$ |
|  | Loser Woman | 116 | 31,76 | 1,61 |  |

When the vertical jump scores of male and female candidates who passed and failed the exam in the Department of Coaching Education were compared, the difference was found to be significant (Table 2), ( $\mathrm{p}<0.05$ ).

Table 2: Comparison of vertical jump scores of male and female candidates who passed and failed the exam in the Department of Coaching Education

|  |  | n | $\bar{X}$ | $\pm$ S |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Coaching Education. <br> Vertical jump (cm) | Winner Male | 20 | 57,4 | 3,24 | $\begin{gathered} \mathrm{t}=2.43 \\ \mathrm{p}<0.05 \end{gathered}$ |
|  | Loser Male | 82 | 42,76 | 2,86 |  |
|  | Winning Woman | 10 | 46,6 | 1,22 | $\begin{gathered} \mathrm{p}=0.014 \\ \mathrm{p}<0.05 \end{gathered}$ |
|  | Loser Woman | 22 | 42,45 | 0,81 |  |

When the 100 m run scores of male and female candidates who won and did not win the Physical Education Teacher Education Department were compared, the difference was found to be significant (Table 3), (p<0.05).

Table 3: Comparison of 100 m run scores of male and female candidates who passed and failed the exam in the Department of Physical Education Teaching

|  |  | n | $\bar{X}$ | $\pm$ S |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Physical Education Teacher. 100 m run (sec) | Winner Male | 30 | 12,41 | 0,008 | $\begin{aligned} & \mathrm{t}=3.66 \\ & \mathrm{p}<0.05 \end{aligned}$ |
|  | Loser Male | 336 | 13,13 | 0,005 |  |
|  | Winning Woman | 20 | 14,81 | 0,20 | $\begin{aligned} & \mathrm{t}=5.58 \\ & \mathrm{p}<0.05 \end{aligned}$ |
|  | Loser Woman | 116 | 16,69 | 0,13 |  |

When the 100 m run scores of the male candidates who passed and failed the exam in the Department of Coaching Education were compared, the difference was found to be insignificant (Table 4), (p>0.05).

When the 100 m run scores of the female candidates who won and did not win in the Department of Coaching Education were compared, the difference was found to be significant (Table 4), ( $\mathrm{p}<0.05$ ).

Table 4: Comparison of 100 m run scores of male and female candidates who passed and failed the exam in the Department of Coaching Education

|  |  | N | $\bar{X}$ | $\pm$ S |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Coaching Education. 100 m run (sec) | Winner Male | 20 | 12,39 | 0,009 | $\begin{gathered} \mathrm{t}=0.64 \\ \mathrm{p}>0.05 \end{gathered}$ |
|  | Loser Male | 82 | 12,69 | 0,23 |  |
|  | Winning Woman | 10 | 15,37 | 0,15 | $\begin{gathered} \mathrm{p}=0.003 \\ \mathrm{p}<0.05 \end{gathered}$ |
|  | Loser Woman | 22 | 16,53 | 0,29 |  |

When the 1500 m run scores of the male candidates who passed and failed the exam in the Department of Physical Education Teaching were compared, the difference was found to be significant (Table 5), ( $\mathrm{p}<0.05$ ).

When the 800 m run scores of the female candidates who won and did not win the Physical Education Teacher Education Department were compared, the difference was found to be insignificant (Table 5), ( $p>0.05$ ).

Table 5. Comparison of 800 m and 1500 m running scores of male and female candidates who passed and failed the exam in the Department of Physical Education Teaching

|  |  | n | $\bar{X}$ | $\pm$ S |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Physical Education Teacher. 800 and 1500 m run (sec) | Winner Male | 30 | 4,61 | 0,17 | $\begin{aligned} & \mathrm{t}=2.34 \\ & \mathrm{p}<0.05 \end{aligned}$ |
|  | Loser Male | 336 | 3,62 | 0,12 |  |
|  | Winning Woman | 20 | 2,88 | 0,009 | $\begin{aligned} & \mathrm{t}=1.11 \\ & \mathrm{p}>0.05 \end{aligned}$ |
|  | Loser Woman | 116 | 2,53 | 0,12 |  |

When the 1500 m run scores of the male candidates who won and did not win in the Department of Coaching Education were compared, the difference was found to be insignificant (Table 6), ( $\mathrm{p}>0.05$ ).

When the 800 m run scores of the female candidates who won and did not win in the Department of Coaching Education were compared, the difference was found to be insignificant (Table 6), ( $\mathrm{p}>0.05$ ).

Table 6: Comparison of 800 m and 1500 m running scores of male and female candidates who passed and failed the exam in the Department of Coaching Education

|  |  | n | $\bar{X}$ | $\pm$ S |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Coaching Education. 800 m and 1500 m run (sec) | Winner Male | 20 | 4,67 | 0,006 | $\begin{gathered} \mathrm{t}=1.61 \\ \mathrm{p}>0.05 \end{gathered}$ |
|  | Loser Male | 82 | 3,93 | 0,22 |  |
|  | Winning Woman | 10 | 2,99 | 0,007 | $\begin{gathered} p=0.149 \\ p>0.05 \end{gathered}$ |
|  | Loser Woman | 22 | 3,03 | 0,15 |  |

When the coordination and skill test scores of the male candidates who passed and failed the exam in the Physical Education Teaching Department were compared, the difference was found to be significant (Table 7), ( $\mathrm{p}<0.05$ ).

When the coordination and skill test scores of the female candidates who won and did not win the Physical Education Teaching Department were compared, the difference was found to be insignificant (Table 7), ( $p>0.05$ ).

Table 7: Comparison of the coordination test scores of male and female candidates who passed and failed the exam in the Department of Physical Education Teaching

|  |  | n | $\bar{X}$ | $\pm 5$ |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Physical Education Teacher. Coordination and Skill test (sec) | Winner Male | 30 | 36,70 | 1,30 | $\begin{aligned} & \mathrm{t}=2.03 \\ & \mathrm{p}<0.05 \end{aligned}$ |
|  | Loser Male | 335 | 29,29 | 1,08 |  |
|  | Winning Woman | 20 | 43,31 | 0,60 | $\begin{aligned} & \mathrm{t}=1.14 \\ & \mathrm{p}>0.05 \end{aligned}$ |
|  | Loser Woman | 116 | 37,79 | 2,00 |  |

When the coordination and skill test scores of the male candidates who passed and failed the exam in the Department of Coaching Education were compared, the difference was found to be insignificant (Table 8), ( $\mathrm{p}>0.05$ ).

When the coordination and skill test scores of the female candidates who won and did not win in the Coaching Education Department were compared, the difference was found to be insignificant (Table 8 ), ( $\mathrm{p}>0.05$ ).

Table 8. Comparison of the coordination test scores of male and female candidates who passed and failed the exam in the Department of Coaching Education

|  |  | n | $\bar{X}$ | $\pm$ S |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Coaching Education. <br> Coordination and Skill Test (sec) | Winner Male | 20 | 37,20 | 0,22 | $\begin{aligned} & \mathrm{t}=0.956 \\ & \mathrm{p}>0.05 \end{aligned}$ |
|  | Loser Male | 82 | 33,90 | 1,69 |  |
|  | Winning Woman | 10 | 44,06 | 0,68 | $\begin{gathered} \mathrm{p}=0.382 \\ \mathrm{p}>0.05 \end{gathered}$ |
|  | Loser Woman | 22 | 43,94 | 2,31 |  |

When the ÖSS scores of the male candidates who passed the exam and those who did not pass the exam in the Physical Education Teaching Department were compared, the difference was found to be insignificant (Table 9), (p>0.05).

When the ÖSS scores of the female candidates who passed and failed the exam in the Department of Physical Education Teaching were compared, the difference was found to be insignificant (Table 9), ( $\mathrm{p}>0.05$ ).

Table 9: Comparison of the ÖSS scores of male and female candidates who passed and failed the exam in the Department of Physical Education Teaching

|  |  | N | $\bar{X}$ | $\pm$ S |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Physical Education Teacher. ÖSS Score | Winner Male | 30 | 135,35 | 1,78 | $\begin{aligned} & \mathrm{t}=0.008 \\ & \mathrm{p}>0.05 \end{aligned}$ |
|  | Loser Male | 336 | 130,33 | 0,39 |  |
|  | Winning Woman | 20 | 129,69 | 2,21 | $\begin{aligned} & \mathrm{t}=0.793 \\ & \mathrm{p}>0.05 \end{aligned}$ |
|  | Loser Woman | 116 | 128,36 | 0,58 |  |

When the ÖSS scores of the male candidates who passed the exam and those who did not pass the exam in the Department of Coaching Education were compared, the difference was found to be insignificant (Table 10), ( $\mathrm{p}>0.05$ ).

When the ÖSS scores of the female candidates who passed the exam and those who did not pass the exam in the Department of Coaching Education were compared, the difference was found to be insignificant (Table 10), ( $\mathrm{p}>0.05$ ).

Table 10: Comparison of the ÖSS scores of male and female candidates who passed and failed the exam in the Department of Coaching Education

|  |  | n | $\bar{X}$ | $\pm$ S |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Coaching Education. ÖSS Score | Winner Male | 20 | 132,84 | 2,44 | $\begin{aligned} & \mathrm{t}=1,635 \\ & \mathrm{p}>0,05 \end{aligned}$ |
|  | Loser Male | 82 | 129,44 | 0,84 |  |
|  | Winning Woman | 10 | 126,52 | 2,91 | $\begin{gathered} p=0.745 \\ p>0.05 \end{gathered}$ |
|  | Loser Woman | 22 | 127,60 | 1,09 |  |

When the field scores of the male candidates who passed and failed the exam in the Physical Education Teaching Department were compared, the difference was found to be significant (Table 11), ( $\mathrm{p}<0.05$ ).

When the field scores of the female candidates who passed and failed the exam in the Department of Physical Education Teaching were compared, the difference was found to be significant (Table 11), ( $\mathrm{p}<0.05$ ).

Table 11: Comparison of the field scores of male and female candidates who passed and failed the exam in the Department of Physical Education Teaching

|  |  | n | $\bar{X}$ | $\pm$ S |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Physical Education Teacher. <br> Field Score | Winner Male | 30 | 1,37 | 0,008 | $\begin{gathered} \mathrm{t}=8.99 \\ \mathrm{p}<0.05 \end{gathered}$ |
|  | Loser Male | 336 | 1,90 | 0,001 |  |
|  | Winning Woman | 20 | 1,75 | 0,009 | $\begin{gathered} \mathrm{T}=3,386 \\ \mathrm{p}<0,05 \end{gathered}$ |
|  | Loser Woman | 116 | 1,96 | 0,001 |  |

When the field scores of the male candidates who passed and failed the exam in the Department of Coaching Education were compared, the difference was found to be insignificant (Table 12), ( $\mathrm{p}>0.05$ ).

When the field scores of the female candidates who passed and failed the exam in the Department of Coaching Education were compared, the difference was found to be significant (Table 12), ( $\mathrm{p}<0.05$ ).

Table 12: Comparison of the field scores of male and female candidates who passed and failed the exam in the Department of Coaching Education

|  |  | n | $\bar{X}$ | $\pm$ S |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Department of Coaching Education. Field Score | Winner Male | 20 | 1,85 | 0,008 | $\begin{aligned} & \mathrm{t}=0.183 \\ & \mathrm{p}>0.05 \end{aligned}$ |
|  | Loser Male | 82 | 1,87 | 0,003 |  |
|  | Winning Woman | 10 | 1,70 | 0,15 | $\begin{gathered} \mathrm{p}=0.008 \\ \mathrm{p}<0.05 \end{gathered}$ |
|  | Loser Woman | 22 | 2,00 | 0 |  |

When the weighted secondary education achievement scores of the male candidates who passed the exam and those who did not pass the exam in the Department of Physical Education Teaching were compared, the difference was found to be significant (Table 13), ( $\mathrm{p}<0.05$ ).

When the weighted secondary education achievement scores of the female candidates who passed and failed the exam in the Department of Physical Education Teaching were compared, the difference was found to be insignificant (Table 13), ( $\mathrm{p}>0.05$ ).

Table 13: Comparison of weighted secondary education scores of male and female candidates who passed and failed the exam in the Department of Physical Education Teaching

|  |  | n | $\bar{X}$ | $\pm$ S |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Physical Education Teacher. Weighted Secondary Education Achievement Score | Winner Male | 30 | 56,24 | 1,16 | $\begin{gathered} \mathrm{t}=2.69 \\ \mathrm{p}<0.05 \end{gathered}$ |
|  | Loser Male | 335 | 52,14 | 0,44 |  |
|  | Winning Woman | 20 | 57,45 | 1,54 | =1.68 |
|  | Loser Woman | 116 | 54,34 | 0,71 | $\mathrm{p}>0.05$ |

When the weighted secondary education achievement scores of male and female candidates who passed and failed the exam in the Department of Coaching Education were compared, the difference was found to be insignificant (Table 14), ( $\mathrm{p}>0.05$ ).

When the weighted secondary education achievement scores of the female candidates who passed and failed the exam in the Department of Coaching Education were compared, the difference was found to be insignificant (Table 14), ( $\mathrm{p}>0.05$ ).

Table 14: Comparison of weighted secondary education achievement scores of male and female candidates who passed and failed the exam in the Department of Coaching Education

|  |  | n | $\bar{X}$ | $\pm$ S |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Coaching Education. <br> Weighted Secondary <br> Education Achievement Score | Winner Male | 20 | 51,84 | 2,34 | $\begin{gathered} \mathrm{t}=0.98 \\ \mathrm{p}>0.05 \end{gathered}$ |
|  | Loser Male | 82 | 49,62 | 0,95 |  |
|  | Winning Woman | 10 | 52,63 | 1,78 | $\begin{gathered} \mathrm{p}=0.0839 \\ \mathrm{p}>0.05 \end{gathered}$ |
|  | Loser Woman | 22 | 52,03 | 1,32 |  |

## 5. Discussion and Conclusion

As a result of the analysis of the data of the candidates who participated in the Special Talent Examination of Cumhuriyet University School of Physical Education and Sports in 2001-2002 academic year, it is possible to reach the following results. A total of 633 candidates, 468 males and 165 females, applied to the special talent exam. $73,9 \%$ of the applicants were male and $26,1 \%$ were female. Out of the total 633 applicants, 80 candidates, 30 males and 20 females, 20 males and 10 females, were entitled to enroll in the Department of Physical Education Teaching and 20 males and 10 females in the Department of Coaching Education. All candidates participated in skill tests. The scores obtained were calculated together with other parameters and the placement score was obtained. Students were admitted according to the allocated quotas by ranking from the candidate with the highest score to the candidate with the lowest score.

Special Talent Exam; Physical Education Teaching and Coaching Education Departments were applied to two groups. However, all candidates who took the exam were subjected to the same tests. Afterwards, each candidate was evaluated and ranked in the department they preferred. In the 100 m running test in the Department of Physical Education Teaching, the average of the winning male candidates was 12.41 seconds, while this value was found to be 13.13 seconds in the candidates who did not win. It was found to be 14.81 seconds for winning female candidates and 16.69 seconds for losing female candidates. When the 100 m running scores of the winning and losing male and female candidates who took the exam in the Physical Education Teaching Department were compared, the difference was found to be significant ( $\mathrm{p}<0.05$ ).

In the Coaching Education Department, in the 100 m running test, the average of winning male candidates was 12.39 seconds, losing male candidates was 12.69 seconds, winning female candidates was 15.37 seconds, and losing female candidates was 16.53 seconds. In the Coaching Education Department, when the 100 m running scores were compared, the difference was found to be insignificant ( $\mathrm{p}>0.05$ ) for male candidates, while the same values were found to be significant for female candidates ( $\mathrm{p}<0.05$ ).

In a study conducted at Karadeniz Technical University Fatih Faculty of Education, Department of Physical Education Teaching in 1993, the mean values of 100 m sprint for male and female students were found to be 13.35 seconds for males and 16.50 seconds for females. In the 2001-2002 Academic Year Special Talent Examination of Cumhuriyet University School of Physical Education and Sports, the same values were found as 12.65 seconds for male candidates and 15.85 seconds for female candidates (17). In the Physical Education Teaching Department, women's 800 m and in the men's 1500 m run test, the mean scores of the winning male candidates were found to be $4.61 \mathrm{~s}, 3.62$ s for the non-winning male candidates, 2.88 s for the winning female candidates and 2.53 s for the non-winning female candidates. When the 1500 m running scores of the male candidates who won in the Department of Physical Education Teaching were compared, the difference was found to be significant ( $\mathrm{p}<0.05$ ), while it was found to be insignificant for the candidates who did not win ( $p>0.05$ ). The difference was found to be insignificant in both groups of female candidates ( $p>0.05$ ).

In the Department of Coaching Education, the difference was 4.67 s for winning male candidates, 3.93 s for non-winning male candidates, 2.99 s for winning female candidates, and 3.03 s for non-winning female candidates. In the Department of Coaching Education, the difference was found to be insignificant for both groups of male and female candidates ( $\mathrm{p}>0.05$ ).

In the Coordination and Skill Test in the Department of Physical Education Teaching; the mean scores of the winning male candidates were 36.7 seconds, the mean scores of the non-winning male candidates were 29.29 seconds, the mean scores of the winning female candidates were 43.31 seconds and the mean scores of the non-winning female candidates were 37.79 seconds. When the coordination and skill test scores were compared in the Physical Education Teaching Department, the difference was found to
be significant ( $\mathrm{p}<0.05$ ) for the winning and non-winning male candidates, while the same values were found to be insignificant in both groups of women ( $p>0.05$ ).

In the Department of Coaching Education, the averages of the winning male candidates were $37.2 \mathrm{~s}, 33.9 \mathrm{~s}$ for the non-winning male candidates, 44.06 s for the winning female candidates and 43.94 s for the non-winning female candidates. In the Department of Coaching Education, it was found to be insignificant for both groups of male and female candidates ( $\mathrm{p}>0.05$ ).

The averages were 57.9 cm for winning male candidates, 29.33 cm for losing male candidates, 47 cm for winning female candidates, and 31.76 cm for losing female candidates. When the vertical jump scores were compared in the Physical Education Teaching Department, the difference was found to be significant for winning and losing male and female candidates ( $\mathrm{p}<0.05$ ).

In the Department of Coaching Education, 57.4 cm was found in winning male candidates, 42.76 cm in losing male candidates, 46.6 cm in winning female candidates, and 42.45 cm in losing female candidates. In the Department of Coaching Education, it was found to be significant for winning and losing male and female candidates ( $\mathrm{p}<0.05$ ). Ziyagil et al. reported vertical jump averages of 49.83 and 36.39 centimeters for 96 male and 49 female winners of the 1995 Karadeniz Technical University special aptitude exam, while the same values were 46.34 and 32.65 centimeters for 333 male and 122 female losers, respectively. In the 2001-2002 academic year at Cumhuriyet University School of Physical Education and Sports, the vertical jump averages were 57.65 and 46.8 centimeters for 50 male and 30 female winners, while the same values were 36.04 and 37.10 centimeters for 418 male and 138 female candidates who did not win. As a result of the analysis, the significance of the vertical jump test for all groups taking the test is an indication that this test is a selective criterion for special talent exams.

Average ÖSS scores in the Department of Physical Education Teaching 135,35 for male candidates who won, 130,33 for male candidates who did not win, 129,69 for female candidates who won, and 128,36 for female candidates who did not win. The difference was found to be insignificant ( $\mathrm{p}>0.05$ ) when the ÖSS scores of male and female candidates who won and did not win in the Department of Physical Education Teaching were compared.

In the Department of Coaching Education, it was found 132.84 for male candidates who won, 129.44 for male candidates who did not win, 12.52 for female candidates who won, and 127.60 for female candidates who did not win. The difference was found to be insignificant ( $\mathrm{p}>0.05$ ) when the ÖSS scores of male and female candidates who won and did not win in the Department of Coaching Education were compared.

The averages related to the Student Selection Examination (ÖSS) score, which is accepted as an indicator of mental ability in special aptitude exams, have been reported by researchers. While male and female candidates who passed and failed the special aptitude exam of Karadeniz Technical University, Department of Physical Education reported mean ÖSS scores of $117.52,113.02,115.82,112.59$, respectively (Ziyagil, M.A., et al., 1997). The average ÖSS scores of the students who passed the aptitude test of both
universities were below 120. In the 2001-2002 academic year Special Talent Examination of Cumhuriyet University School of Physical Education and Sports, the mean ÖSS scores were found to be 134.09 for winning male candidates, 129.88 for non-winning male candidates, 128.10 for winning female candidates and 127.98 for non-winning female candidates. In the previous studies, the average ÖSS score averages, which were below 120 points, were found to be 131.09 for the winning candidates and 128.93 for the nonwinning candidates in the exam held at Cumhuriyet University. It is seen that the average ÖSS scores of the candidates who applied to the special talent exam of Cumhuriyet University School of Physical Education and Sports are higher than the averages found in Karadeniz Technical University and Çukurova University. However, as a result of the analyzes, it was found that the ÖSS score was statistically insignificant in placement. For this reason, ÖSS score is not considered as the main criterion in special talent exams.

In the Department of Physical Education Teaching, the mean scores of Weighted Secondary Education Achievement were 56.24 for male candidates who won, 52.14 for male candidates who did not win, 57.45 for female candidates who won, and 54.34 for female candidates who did not win. When the scores of male candidates who gained AOBP and male candidates who did not gain AOBP in the Physical Education Teaching Department were compared, the difference was found to be significant ( $\mathrm{p}<0.05$ ). In female candidates, the difference was found to be insignificant ( $\mathrm{p}>0.05$ ).

In the Department of Coaching Education, the scores were 51.84 for winning male candidates, 49.62 for non-winning male candidates, 52.63 for winning female candidates, and 52.03 for non-winning female candidates. When the scores of male and female candidates who won and did not win in the Department of Coaching Education were compared among themselves, the difference was found to be insignificant ( $p>0.05$ ).

In the Department of Physical Education Teaching, the mean field scores were found to be 1.37 for male candidates who won, 1.9 for male candidates who did not win, 1.75 for female candidates who won, and 1.96 for female candidates who did not win. When the scores of male and female candidates who won and did not win in the Department of Physical Education Teaching were compared, the difference was found to be significant ( $\mathrm{p}<0.05$ ).

In the Department of Coaching Education, it was found as 1.85 for male candidates who won, 1.87 for male candidates who did not win, 1.70 for female candidates who won, and 2.00 for female candidates who did not win. In the Department of Coaching Education, the difference was found to be insignificant ( $p>0.05$ ) when the scores of the winning and non-winning male candidates were compared. When the scores of the winning and non-winning female candidates were compared, the difference was found to be significant ( $\mathrm{p}<0.05$ ).

Special aptitude exams held throughout Turkey are applied differently. The exams are conducted in single or multiple stages. Cumhuriyet University School of Physical Education and Sports 2001-2002 Academic Year Special Talent Examination is held in a single stage. If we compare the single-stage and multi-stage exams, it is possible to measure all physical abilities of the candidates taking the exam in single-stage exams. In
multi-stage exams, when the candidate fails in the first stage, even if he/she is very successful in other aptitude exams, he/she is eliminated and loses the right to measure his/her abilities in the field in which he/she is successful. However, if we evaluate multistage exams from another perspective, candidates who are successful in this exam system are successful in all skill tests applied and gain the right to register.

Considering the results obtained in this study, normative information should be created by conducting more special aptitude exams on crowded subjects and different age groups. Special talent exams in different regions should be tested. The academic and physical performances of candidates should be measured during their education and training. Mental, physical, and motoric measurements should be investigated in accordance with the academic success of the students of the School of Physical Education and Sports. Not only the physical characteristics and physiological capacities but also the technical and psychological characteristics of the candidates participating in the aptitude test should be tested.

## Conflict of Interest Statement

The authors declare no conflicts of interest.

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