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# A Study on the Benefits of Extracurricular Activities for Prospective Teachers Using the Pairwise Comparison Approach

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**ABSTRACT**

This survey study aimed to determine the benefits of extracurricular activities for prospective teachers by performing a scaling study with pairwise comparison. Participants were 365 prospective teachers studying at different branches of a higher education institution. The data collection tool was designed by taking the opinions of three domain experts and two measurement and evaluation experts about the benefits that emerged from the literature. Each student was asked to rank the benefits of extracurricular activities by making a pairwise comparison. In the analysis of the data, as the chi-square value for error calculated with the Case V model was higher than expected at the 0,05 significance level, the Case III model was used for scaling. In this way, the benefits of extracurricular activities for the development of prospective teachers were scaled through pairwise comparison. The results showed that the order of benefits from the biggest to the smallest were: supporting personal development, supporting teaching skills, supporting social development, instilling positive affective qualities, supporting academic development and supporting physical development. Recommendations for the future include conducting studies to explore the reasons for the less preferred benefits.

# İkili Karşılaştırma Yöntemi ile Program Dışı Etkinliklerin Öğretmen Adayları için Yararlarının İncelenmesi

**Makale Bilgileri**

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**ÖZ**

Bu araştırmanın amacı program dışı etkinliklerin öğretmen adaylarına yönelik yararlarını ikili karşılaştırmayla ölçeklendirme çalışması yaparak belirlemeye çalışmaktır. Araştırma tarama araştırması niteliğindedir. Katılımcılar bir yükseköğretim kurumunun farklı branşlarında öğrenim gören 365 öğretmen adayıdır. Alan yazından yararlanarak ortaya çıkan yararlar için üç konu alanı uzmanı ve iki ölçme ve değerlendirme uzmanının görüşü alınmış ve veri toplama aracına son hali verilmiştir. Her bir öğrencinin ilgili yararları ikili karşılaştırma yaparak, aralarında sıralama yapması istenmiştir. Verilerin analizinde V. Hal denkleminde hesaplanan hata için ki kare değeri 0,05 anlamlı düzeyinde beklenen değerden büyük çıktığı için III. Hal denklemiyle ölçekleme yapılmıştır. Böylece program dışı etkinliklerin öğretmen adaylarının gelişimine yönelik yararları ikili karşılaştırma yoluyla ölçeklendirilmiştir. Elde edilen sıralama doğrultusunda program dışı etkinliklerin yararları arasından en çoktan en aza doğru kişisel gelişimi desteklemesi, öğretmenlik becerisini desteklemesi, sosyal gelişimi desteklemesi, olumlu duyuşsal özellikler kazandırması, akademik gelişimi desteklemesi ve fiziksel gelişimi desteklemesi şeklinde bir sıralama yapılmıştır. Elde edilen sonuçlarla ilgili becerileri geliştirmeye yönelik etkinliklerin artırılması, daha az tercih edilen yararların sebeplerine odaklanacak araştırmalar gerçekleştirme gibi önerilere yer verilmiştir.

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## INTRODUCTION

Prospective teachers pursuing an undergraduate degree in Turkey follow the teacher training curriculum designed by the Council of Higher Education (Council of Higher Education [HEC], 2018) or by individual education faculties with delegation of authority from the HEC (2020). In a formal curriculum, instruction takes place to meet prespecified goals and objectives, and is followed by appropriate measurement and evaluation. It is, in most cases, complemented by a hidden curriculum that acts as an unwritten curriculum (Yüksel, 2002). The hidden curriculum ensures informal learning in a number of ways, including extracurricular activities (Brooks, 2007). These activities are voluntary and do not require grading (Bartkus, Nemelka, Nemelka & Gardner, 2012). They are chosen consciously and willfully, and are performed jointly by students and lecturers outside of class or study hours. They help students with organizing their leisure time, pursuing their interests and developing their cognitive processes. In addition, extracurricular activities have excellent cognitive, educational and developmental potential (Androshchuk, Androshchuk, Kurach, Khrenova & Livshun, 2020).

Even though there is a teacher education course entitled "Extracurricular Activities in Education" in the Turkish teacher education undergraduate program, it has been designated as an elective professional knowledge course (HEC, 2018). On the other hand, The Scientific and Technological Research Council of Türkiye (TÜBİTAK) supports projects related to extracurricular activities in education. In the international arena, many countries participate in the Out of School Day; PISA data includes extracurricular activities; and scientific studies on the topic are becoming increasingly popular (OECD, 2012; Özer Özkan, 2016; Özkan, 2020).

As future teachers, prospective teachers should learn how to contribute to their students' self-confidence, problem solving skills, socialization, thinking skills, and academic success (Bartkus et al., 2012; Keser, Akar & Yıldırım, 2011; Moriana, Alos, Alcala, Pino, Herruzo & Ruiz, 2006). Extracurricular activities that may help them achieve these include scientific, community-based, artistic, sports and cultural activities (Uysal & Özkan Elgün, 2020). Developing prospective teachers in these dimensions is therefore essential.

Extracurricular activities have many diverse benefits. Considering academic development, extracurricular activities have been shown to increase students' academic success (Broh, 2002; Chambers & Schreiber, 2004; Christison, 2013; Feldman & Matjasko, 2005; Ilhomovna & Ismatovna, 2020; Massoni, 2011; McNael, 1999; Uysal, 2022) and to contribute to their analytical thinking and problem solving skills (Massoni, 2011). In the realm of personal development, extracurricular activities improve responsibility taking, entrepreneurship, leadership and coping (Ereyi, 2018), time management (Christison, 2013; Ilhomovna & Ismatovna, 2020; Massoni, 2011; Uysal, 2022), self-knowledge and personal development in different areas (Ilhomovna & Ismatovna, 2020; Uysal, 2022). As for professional skills, extracurricular activities have positive effects on prospective teachers' field knowledge, general culture and pedagogical formation skills (Uysal, 2022) as well as their professional ethics (Brown-Liburd & Porco, 2011), and provide them with an opportunity to practice

their theoretical professional knowledge (Dickinson, Griffiths & Bredice, 2020). Regarding social development, extracurricular activities facilitate students' interpersonal skills and the development of positive social norms (Eccles et al., 2003; Stuart et al., 2011; cited in Chan, 2016). Extracurricular activities were also found to have positive effects on communication skills (Reva, 2012; Uysal, 2022), socialization skills (Dickinson et al., 2020; Ren & Zhang, 2020; Reva, 2012; Uysal, 2022), and team work skills (Ilhomovna & Ismatovna, 2020). In the dimension of physical development, extracurricular activities help students have a healthy body and steer away from bad habits (Ereyi, 2018). As for positive affective qualities, extracurricular activities help students feel better about themselves (Eccles et al., 2003; Stuart et al., 2011; cited in Chan, 2016), develop positive attitudes and motivations (Diaz-Iso, Eizaguirre & Garcia-Olalla, 2019), have fun and be happy individuals (Uysal, 2022). Owing to all of these benefits, extracurricular activities may be said to help prospective teachers' academic, social, physical and personal development, as well as their professional skills and positive affective qualities.

The aim of this study was to scale the benefits of extracurricular activities for prospective teachers by using the pairwise comparison approach. In this way, it was possible to rank the benefits of extracurricular activities in order of importance. It is believed that the study contributes to the literature as it studies the benefits of extracurricular activities for prospective teachers from their own perspective and by using the pairwise comparison approach.

## METHOD

Since the purpose of this study is to scale the benefits of extracurricular activities from the perspective of prospective teachers by using the pairwise comparison approach, this is a survey study. Survey studies strive to describe a past or present situation as it was/is (Karasar, 2012).

### Participants

Participants were 365 prospective teachers from a higher education institution. They were determined by convenience sampling. Among the 138 second year students, 100 were female and 38 were male; among the 117 third year students, 92 were female and 25 were male; and among the 110 fourth year students, 81 were female and 29 were male. Their distribution based on their branches was as follows: 22 from the area of natural sciences, 46 from English language education, 45 from elementary mathematics education, 15 from music education, 62 from preschool education, 42 from psychological counseling and guidance, 15 from arts education, 45 from elementary education, 31 from social studies, and 42 from Turkish education.

### Data Collection Tool

While designing the data collection tool, the relevant literature was first reviewed (Broh, 2002; Brown-Liburd & Porco, 2011; Chambers & Schreiber, 2004; Chan, 2016; Christison, 2013; Diaz-Iso et al., 2019; Dickinson et al., 2020; Ereyi, 2018; Feldman & Matjasko, 2005; Ilhomovna & Ismatovna, 2020; Massoni, 2011; McNael, 1999; Ren & Zhang, 2020; Reva, 2012; Uysal, 2022). Six factors

emerged from this examination of studies on the benefits of extracurricular activities: academic development, social development, physical development, personal development, positive affective characteristics, and professional skills. Following this, the opinions of three domain experts who have Ph.D. degree and two measurement and evaluation experts were taken to organize these six factors in a format appropriate for pairwise comparison and to finalize the data collection tool. Data collection tool was applied on a voluntary basis. First of all, the aim of the study was mentioned. It was asked to choose one of the two benefits given. Each student who participated in the study was asked to make a pairwise comparison and rank the benefits of extracurricular activities. Filling out the data collection tool took an average of five minutes. The aim was to achieve scaling, which brings standard measurement qualities to quantifications that do not have standard measurements (Turgut & Baykul, 1992).

**Data Analysis**

Pairwise comparison, which is one of the scaling techniques, has a wide application area where factors can be given to the respondents in pairs. There is scaling of views. In this method, the number of judgments requested from the observer increases depending on the number of factors. As the number of factors increases, its applicability becomes more difficult. An increase in the number of judgments may lead to the preference of scaling with classification judgments, which is another technique (Turgut & Baykul, 1992). In this study, the number of factors does not make the application difficult. It is possible for pre-service teachers to rank among them by making pairwise comparisons. As stated, there are six factors in total. As shown in Figure 1, for data analysis in line with Thurnstone's Case V model, frequency values were measured for each benefit and a frequency matrix was created. Through this frequency matrix, a ratio matrix and a standard normal deviation matrix was also created. The scale values were measured with the help of the standard normal deviation matrix. The scale values were then rearranged by assigning zero to the smallest scale value. Finally, internal consistency and significance tests were performed to check the reliability of the results (Turgut & Baykul, 1992).

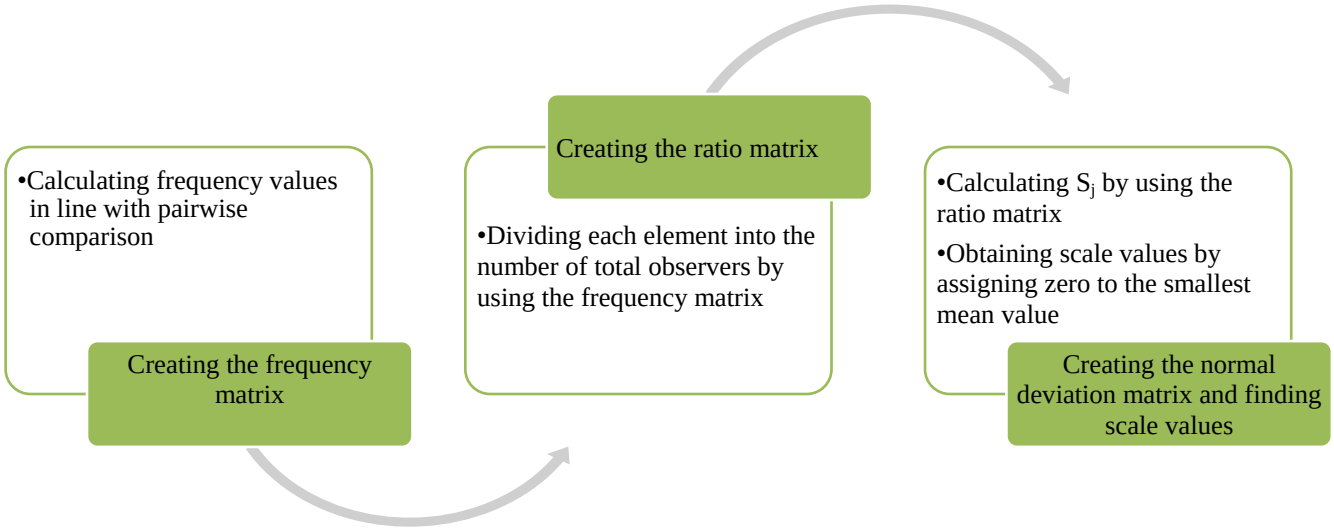

**Figure 1.** *The process of implementing the Case V model according to Turgut and Baykul (1992)*

As the chi-square value for error calculated with the Case V model was higher than expected at the 0,05 significance level, the Case III model was used for scaling.

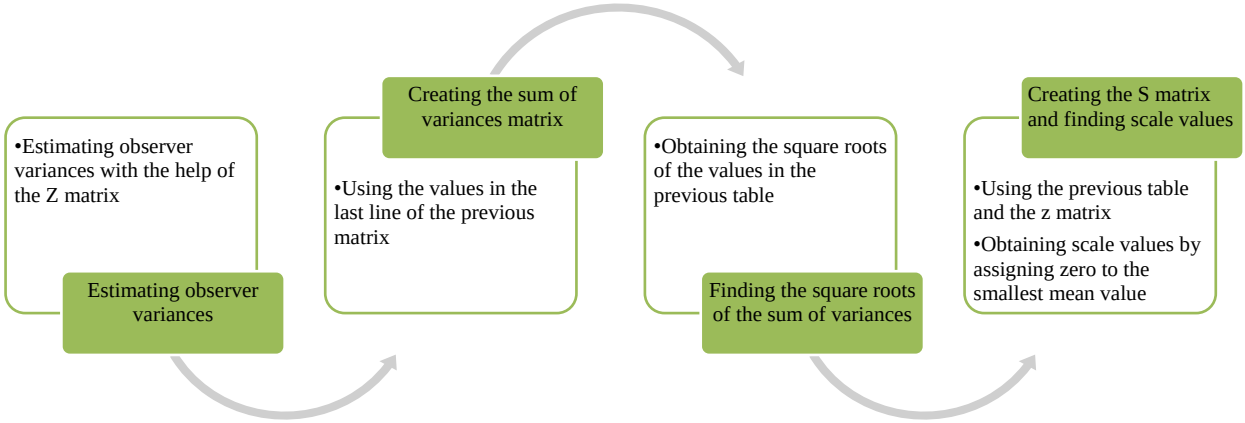


**Figure 2.** *The process of implementing the Case III model according to Turgut and Baykul (1992)*

As can be seen from Figure 2, the respected observation variances were predicted, a sum of variances matrix was created, the square root of sum of variances was found, and the S matrix was created. Scale values were obtained in this way (Turgut & Baykul, 1992).

**Ethic**

In accordance with the permission obtained from Manisa Celal Bayar University's Social and Human Sciences Research and Publication Ethics Committee, dated 01.11.2022 and numbered 2022/09, each student who participated in the study was asked to make a pairwise comparison and rank the benefits of extracurricular activities.

**FINDINGS**

In this study, the benefits of extracurricular activities for prospective teachers were scaled by using pairwise comparison. First, the scaling was completed in three stages in line with Thurnstone's Case V model. In the first stage, a frequency matrix was formed. Then, with the help of this matrix, a ratio matrix was obtained. Finally, a standard normal deviation matrix was drawn. Each stage is explained below in more detail.

The participants were given pairs of benefits and asked to choose the one in each pair that has more priority for them. The benefits of extracurricular activities for prospective teachers were coded as" A, supporting academic development; B, supporting physical development; C, supporting personal development; D, instilling positive affective qualities; E, supporting teaching skills; F, supporting social development".

In the first stage, the frequency values of each quality were calculated. The frequency values obtained via paired comparisons are given in Table 1 below.

**Table 1.** *Frequency Matrix*

| $U_k > U_j$ | A | B | C | D | E | F |
|---|---|---|---|---|---|---|
| A | | 237 | 17 | 54 | 50 | 58 |
| B | 128 | | 32 | 62 | 66 | 57 |
| C | 348 | 333 | | 268 | 219 | 217 |
| D | 311 | 303 | 97 | | 192 | 187 |
| E | 315 | 299 | 146 | 173 | | 194 |
| F | 307 | 308 | 148 | 178 | 171 | |
| Total | 1409 | 1480 | 440 | 735 | 698 | 713 |

In Table 1, when the element in each cell is expressed as $f_{kj}$, this expression corresponds to the frequency that gives the Uk>Uj value for each cell. In other words, these values correspond to the number of participants who prefer line stimuli to column stimuli. For example, the number of those who preferred stimuli A to stimuli B was 237. This means there were 237 prospective teachers who preferred academic skills development to physical development. Also, in this matrix, the sum of opposite diagonals equals the total participant number, which is 365. In other words, the table values show that the sum of symmetrical elements in the diagonal in the matrix is 365. At the same time, as it would not be meaningful to compare stimuli within themselves, the true diagonal of the matrix is null.

In the second stage, the ratio matrix was obtained. To do so, each element in the frequency matrix shown in Table 1 was divided into the number of total observers, which was 365. The ratio matrix obtained in this way can be seen in Table 2.

**Table 2.** *Ratio Matrix (P)*

| $U_k > U_j$ | 1 | 2 | 3 | 4 | 5 | 6 |
|---|---|---|---|---|---|---|
| 1 | | 0.649 | 0.047 | 0.148 | 0.137 | 0.159 |
| 2 | 0.351 | | 0.088 | 0.170 | 0.181 | 0.156 |
| 3 | 0.953 | 0.912 | | 0.734 | 0.600 | 0.595 |
| 4 | 0.852 | 0.830 | 0.266 | | 0.526 | 0.512 |
| 5 | 0.863 | 0.819 | 0.400 | 0.474 | | 0.532 |
| 6 | 0.841 | 0.844 | 0.405 | 0.488 | 0.468 | |
| Total | 3.860 | 4.055 | 1.205 | 2.014 | 1.912 | 1.953 |

The sum of opposite diagonals shown in the ratio matrix in Table 2 equals 1. In the third stage, the standard normal deviation matrix was drawn. To do this, the z standard values corresponding to each element in the ratio matrix were found. The matrix is displayed below in Table 3.

**Table 3.** *Standard Normal Deviation Matrix (Z)*

| $U_k > U_j$ | 1 | 2 | 3 | 4 | 5 | 6 |
|---|---|---|---|---|---|---|
| 1 | | 0.383 | -1.679 | -1.045 | -1.094 | -0.999 |
| 2 | -0.383 | | -1.355 | -0.955 | -0.912 | -1.010 |
| 3 | 1.679 | 1.355 | | 0.626 | 0.253 | 0.239 |
| 4 | 1.045 | 0.955 | -0.626 | | 0.065 | 0.031 |

| | | | | | | |
|---|---|---|---|---|---|---|
| 5 | 1.094 | 0.912 | -0.253 | -0.065 | | 0.079 |
| 6 | 0.999 | 1.010 | -0.239 | -0.031 | -0.079 | |
| Total | 4.434 | 4.616 | -4.152 | -1.470 | -1.767 | -1.660 |
| Mean $z_{kj}$ | 0.739 | 0.769 | -0.692 | -0.245 | -0.294 | -0.277 |
| $S_j$ | 1.431 | 1.461 | 0,000 | 0.447 | 0.398 | 0.415 |

As shown in Table 3, in the standard normal deviation matrix, the elements that are symmetrical according to the true diagonal have opposite signs and equal absolute value. The Sj values obtained from this matrix give the scale value of the stimuli in the Case V model. The smallest value was assigned zero.

The scale values of each benefit that extracurricular activities bring to prospective teachers obtained via the Case V model and the stimuli ranks are given in Table 4.

**Table 4.** *Scale Values of the Benefits of Extracurricular Activities and Stimuli Ranks According to the Case V Model*

| BENEFITS | SCALE VALUES | STIMULI RANKS |
|---|---|---|
| Academic Development | 1.431 | 5 |
| Physical Development | 1.461 | 6 |
| Personal Development | 0 | 1 |
| Affective Development | 0.447 | 4 |
| Teaching Skills | 0.398 | 2 |
| Social Development | 0.415 | 3 |

As can be seen from Table 4, the biggest benefit of extracurricular activities for prospective teachers was support for personal development. This was followed by supporting teaching skills, supporting social development, instilling positive affective qualities, and supporting academic development. The smallest benefit of extracurricular activities was support for physical development. In order to clarify the difference between the scale values, they were also displayed on a number line, as shown in Figure 3.

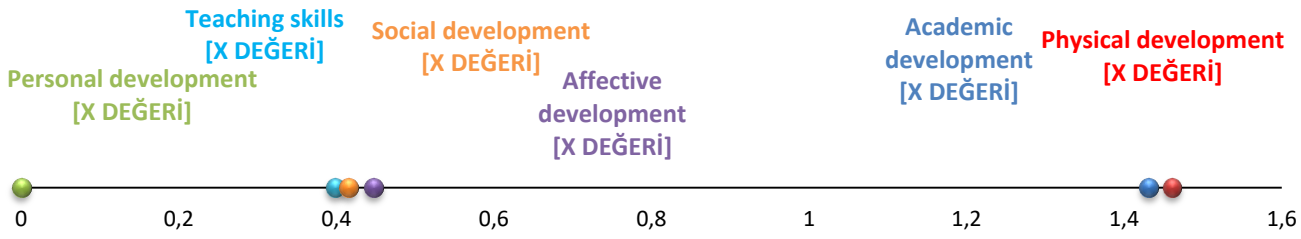


**Figure 3.** *Scale values of stimuli on the number line according to the Case V model*

When the number line values in Figure 3 are examined, it can be seen that the scale values of the first four stimuli are considerably smaller than the others. However, the scale values of stimuli D, E and F are very close to each other. Similarly, the scale values of stimuli A and B are also very close to each other.

In order to test the reliability of these research results, internal consistency and significance tests were conducted. The internal consistency analysis of the scaling was performed in order to check whether the assumptions accepted in the scaling done via the Case V model and the judgments of observers had

been meticulous. Mean error was calculated as 0.02 by looking at the difference between the theoretical ratios matrix and the observed ratios matrix. In other words, an error of 2% had been the case in the observed rates matrix. As such a small size does not enable sufficient interpretation of error, the significance of error was tested with the chi-square test. As a result, a chi-square value of 63,275 was found. This value is greater than the chi-square value at 0.05 significance level at 10 degrees of independence. Therefore, the scaling was done by using the Case III model.

In line with the Case III model, the stages of estimating observer variances, making a matrix of variance sums, calculating the square root of variance sums, and obtaining the S matrix were followed, respectively. The steps are detailed below.

Table 5 displays observer variances estimated with the help of the z matrix values in the V equation of state.

**Table 5.** *Z Matrix and Estimation of Observer Variances*

| $U_k$ | $U_j$ A | B | C | D | E | F |
|---|---|---|---|---|---|---|
| A | | 0.383 | -1.679 | -1.045 | -1.094 | -0.999 |
| B | -0.383 | | -1.355 | -0.955 | -0.912 | -1.010 |
| C | 1.679 | 1.355 | | 0.626 | 0.253 | 0.239 |
| D | 1.045 | 0.955 | -0.626 | | 0.065 | 0.031 |
| E | 1.094 | 0.912 | -0.253 | -0.065 | | 0.079 |
| F | 0.999 | 1.010 | -0.239 | -0.031 | -0.079 | |
| Σzjk | 4.434 | 4.616 | -4.152 | -1.470 | -1.767 | -1.660 |
| Σzjk^2 | 6.253 | 4.748 | 5.169 | 2.401 | 2.104 | 2.083 |
| KΣzjk^2 | 37.521 | 28.489 | 31.012 | 14.405 | 12.622 | 12.499 |
| (Σzjk)^2 | 19.658 | 21.307 | 17.243 | 2.162 | 3.121 | 2.756 |
| K.Vj | 4.226 | 2.680 | 3.711 | 3.499 | 3.082 | 3.121 |
| 1/K.Vj | 0.237 | 0.373 | 0.269 | 0.286 | 0.324 | 0.320 |
| K.C | 6.630 | | | | | |
| σj | 0.569 | 1.474 | 0.787 | 0.895 | 1.151 | 1.124 |
| σj^2 | 0.324 | 2.173 | 0.619 | 0.801 | 1.325 | 1.264 |

With the help of the variance values for each stimulus shown in the last line in Table 5, the variance sums matrix in Table 6 was made.

**Table 6.** *Variance Sums Matrix*

| $U_k$ | | $U_j$ A | B | C | D | E | F |
|---|---|---|---|---|---|---|---|
| | | 0.324 | 2.173 | 0.619 | 0.801 | 1.325 | 1.264 |
| A | 0.324 | | 2.497 | 0.943 | 1.124 | 1.648 | 1.587 |
| B | 2.173 | | | 2.792 | 2.974 | 3.498 | 3.437 |
| C | 0.619 | | | | 1.420 | 1.944 | 1.883 |
| D | 0.801 | | | | | 2.126 | 2.065 |
| E | 1.325 | | | | | | 2.589 |

| | |
|---|---|
| F | 1.264 |

By taking the square roots of the values in Table 6, the square root matrix of variance sums that can be seen in Table 7 was drawn.

**Table 7.** *Square Roots of Variance Sums*

| $U_k$ | $U_j$ | | | | | |
|---|---|---|---|---|---|---|
| | **A** | **B** | **C** | **D** | **E** | **F** |
| A | | 1.580 | 0.971 | 1.060 | 1.284 | 1.260 |
| B | | | 1.671 | 1.725 | 1.870 | 1.854 |
| C | | | | 1.192 | 1.394 | 1.372 |
| D | | | | | 1.458 | 1.437 |
| E | | | | | | 1.609 |
| F | | | | | | |

The values obtained by multiplying the square roots matrix of the variance sums in Table 7 with the elements above the diagonal of the z matrix are the values above the diagonal of the S matrix given in Table 8. Below the diagonal, elements with opposite signs to those above it and equivalent absolute values were placed.

**Table 8.** *The S Matrix*

| $U_k$ | $U_j$ | | | | | |
|---|---|---|---|---|---|---|
| | **A** | **B** | **C** | **D** | **E** | **F** |
| A | | 0.606 | -1.630 | -1.108 | -1.405 | -1.259 |
| B | -0.606 | | -2.265 | -1.646 | -1.706 | -1.873 |
| C | 1.630 | 2.265 | | 0.746 | 0.353 | 0.328 |
| D | 1.108 | 1.646 | -0.746 | | 0.095 | 0.044 |
| E | 1.405 | 1.706 | -0.353 | -0.095 | | 0.127 |
| F | 1,259 | 1.873 | -0.328 | -0.044 | -0.127 | |
| Σzj | 4,796 | 8.096 | -5.322 | -2.148 | -2.789 | -2.632 |
| Sj | 0,799 | 1.349 | -0.887 | -0.358 | -0.465 | -0.439 |
| Sc | 1,238 | 2.236 | 0.000 | 0.529 | 0.422 | 0.448 |

The Sj values were calculated by taking the average of each column in Table 8. The Sc scale values in the last line were created by adding the absolute value equivalent (0,887) of the smallest Sj value (-0.887) to the mean of each stimulus.

Table 9 shows the scale values and stimuli ranks of each benefit obtained in line with the Case III model.

**Table 9.** *Scale Values and Stimuli Ranks of the Benefits of Extracurricular Activities According to the Case III Model*

| **BENEFITS** | **SCALE VALUES** | **STIMULI RANKS** |
|---|---|---|

| | | |
|---|---|---|
| Academic Development | 1.238 | 5 |
| Physical Development | 2.236 | 6 |
| Personal Development | 0 | 1 |
| Affective Development | 0.529 | 4 |
| Teaching Skills | 0.422 | 2 |
| Social Development | 0.448 | 3 |

As shown in Table 9, the biggest benefit of extracurricular activities for prospective teachers was supporting personal development. It was followed, respectively, by supporting teaching skills, supporting social development, instilling positive affective qualities, and supporting academic development. The smallest benefit was supporting physical development. In order to clarify the difference among scale values, they were shown on the number line presented in Figure 4.

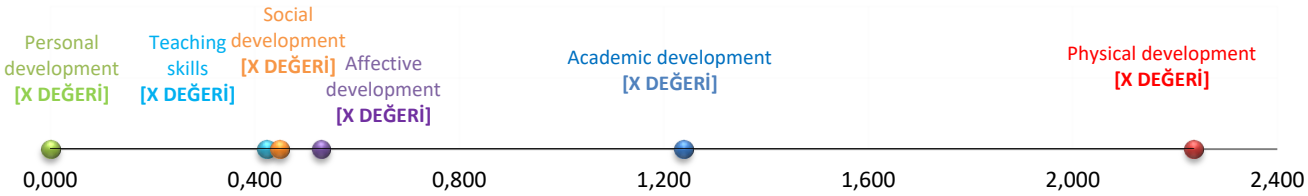


**Figure 4.** *The scale values of the stimuli on a number line based on the Case III model*

An examination of the values given in the number line in Figure 4 reveals that, similar to the number line obtained with the Case V model, the scale values of the first four stimuli are smaller than others. Although the ordering for all stimula is the same, it is also true that the scale intervals are bigger than those for the last two stimula in the Case V model.

## DISCUSSION, CONCLUSION, RECOMMENDATIONS

This study focusing on prospective teachers from different years of study and branches found that they thought extracurricular activities were most beneficial in terms of personal development. It may be stated that, in the domain of personal development, extracurricular activities contribute to entrepreneurship, leadership skills, responsibility taking, and coping with problems (Ereyi, 2018). At the same time, Christison (2013), Ilhomovna and Ismatovna (2020), Massoni (2011) and Uysal (2022) also emphasized the positive effects of these activities on time management. Additionally, it can be said that extracurricular activities may contribute to self-knowledge and discovering one's own talents (Ilhomovna & Ismatovna, 2020; Uysal, 2022).

According to prospective teachers, personal development was followed by teaching skills, social development and positive affective characteristics, respectively. The scale values of these three benefits were very close to one another, and the difference between them and the first scale value appeared to be small. Overall, it can be argued that these benefits had considerable priority for prospective teachers. In the context of teaching skills, on the other hand, Brown-Liburd and Porco (2011) emphasized the development of professional ethics. Uysal (2022) stated that extracurricular activities contribute to prospective teachers

in pedagogical formation, general culture and content area knowledge. Dickinson, Griffiths and Bredice (2020) also mentioned the positive impact of these activities on the realization of professional knowledge. With respect to social development, extracurricular activities might affect communication (Eccles et al., 2003; Reva, 2012; Stuart et al., 2011; cited in Chan, 2016; Uysal, 2022) and socialization skills (Dickinson et al., 2020; Ren & Zhang, 2020; Reva, 2012; Uysal, 2022). In addition, Ilhomovna and Ismatovna (2020) also emphasized their contribution to teamwork skills. Finally, with respect to positive affective qualities, the positive aspects of extracurricular activities include having fun, being happy, feeling good, and having increased motivation (Eccles et al., 2003; Stuart et al., 2011; cited in Chan, 2016; Diaz-Iso et al., 2019; Uysal, 2022).

The least important benefits of extracurricular activities based on prospective teacher opinions were academic and physical development. The scale values of these were closer to each other than to the values of other benefits. Among the benefits of extracurricular activities on academic development are improved academic success (Broh, 2002; Chambers & Schreiber, 2004; Christison, 2013; Feldman & Matjasko, 2005; Ilhomovna & Ismatovna, 2020; Massoni, 2011; McNael, 1999; Uysal, 2022) and improved analytical thinking and problem solving skills (Massoni, 2011). In the context of physical development, Ereyi (2018) emphasized the benefits of extracurricular activities in being healthy and staying away from harmful habits.

In line with the results of the study, the following recommendations may be made for researchers and practitioners. Research may be conducted to investigate the reasons for less preferred benefits. Academicians may offer guidance in scientific activities related with the academia or discipline clubs to encourage further activities for the development of academic skills. This study presents pairwise comparisons of the benefits of extracurricular activities for prospective teachers. It may be replicated with students at other levels of education.

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