



## EXPECTATION FROM PHYSICAL EDUCATION AND SPORTS CLASSES: A SCALE DEVELOPMENT

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### **Abstract:**

The aim of this study is to develop a five-point Likert scale called 'Expectation from Physical Education and Sports Classes'. A draft scale that includes 80 items has been given to 110 students studying at Gazipaşa Secondary School in the Şuhut district of Afyonkarahisar province, Türkiye. The principal component analysis has been employed in factor analysis of the scale to examine the structural validity. As a result of the analysis 26 items have been excluded and remaining 24 items have been grouped under 5 factors. The total explained variance is 49,621. The Cronbach's Alpha value is .875 which indicates the internal consistency of the scale. Furthermore, item-total and item-remaining correlations are significant.

**Keywords:** expectation, physical education, scale development

### **1. Introduction**

Physical Education, according to Savaş (1997), is a general term that encompasses all body exercises aimed at developing educational skills such as games, gymnastics, and sports, in order to maintain a healthy, agile, strong, resilient, and aesthetically pleasing body while promoting its overall development. In other words, physical education is a broad-based activity that focuses on improving an individual's physical health, mental well-being, and body skills through flexible and adaptable exercise and activities that can

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be modified according to environmental conditions and participant characteristics (Aracı, 2004).

According to Mengütay (1997), physical education is a comprehensive set of activities that encompasses various physical exercises conducted systematically with the aim of meeting social needs and enhancing an individual's biological potential. It is considered one of the components of general education, alongside moral and intellectual aspects, and focuses on developing agility, endurance, and fostering the cultivation of "good citizenship" through gymnastics and sports movements (Selçuk, 1980). According to İnal (1998), physical education refers to leisure-time activities voluntarily engaged in by individuals or social groups for relaxation and entertainment purposes. It involves regular and action-oriented activities that have educational value for the development of the human body, particularly in enhancing skills and abilities without utilizing these abilities as means to an end. Sport, which emerged as a means of play, recreation, and diversion from work, has evolved into a multidimensional social institution with diverse impacts in various realms such as politics, economics, racism, national unity, international peace, solidarity, leisure-time management, and division of labor brought about by professionalization (Fişek, 1981). Sports is an organic component of social life and cultural fabric. Over time, changes in society as a result of culture have also altered the meaning and function attributed to the concept of sports. By engaging with nature, humans have taken it upon themselves to a certain extent. Similarly, sports have developed by engaging with the human body, allowing for its improvement (Güven, 1992). Sports involve competition among individuals, teams composed of individuals, and mutual physical efforts between people, encompassing elements of play, entertainment, and confrontation (Gökmen, 1995). It is an activity that can be pursued individually, collectively, or in teams, characterized by its unique rules, techniques, and contributing to the development of physical and mental abilities, while also serving as an educational and enjoyable pursuit (Savaş, 1997).

Physical education is a compulsory subject in all educational institutions, except for universities, starting from the establishment of the Republic. It is an integral part of Turkish National Education and aims to educate individuals' personalities. The main purpose is to raise individuals who are healthy, happy, morally upright, balanced in terms of body, mind, morals, spirit, and emotions, who possess independent and scientific thinking abilities, have a broad worldview, respect human rights, value personality and initiative, and have a sense of responsibility towards society. Beden eğitimi serves as the most important tool for nurturing individuals who are constructive, creative, productive, and embrace national cultural values and the fundamental principles of democratic life (İnal, 1998).

In terms of its objectives, beden eğitimi can be categorized into general and specific objectives. The general objectives of the physical education course are aligned with the general objectives of Turkish National Education. These objectives aim to develop individuals with a balanced and healthy personality and character in terms of body, mind, morals, spirit, and emotions. They seek to foster individuals who possess independent and scientific thinking abilities, have a broad worldview, respect human

rights, value personality and initiative, and have a sense of responsibility towards society—individuals who are constructive, creative, and productive (MEB, 2006). On the other hand, the specific objectives of the physical education course vary depending on the grade level. These objectives include maintaining good posture, acquiring basic knowledge and skills related to sports, engaging in regular movements accompanied by rhythm and music, collaborating with others, taking on tasks and responsibilities, developing a friendly and fair play attitude, improving coordination of nerves, muscles, and joints, strengthening and developing the body's systems, and having the willingness to engage in sports activities during leisure time (MEB, 2013).

According to the decision of the Directorate of Primary Education dated April 12, 2013, physical education and sports courses have been made mandatory in all primary and secondary education institutions, starting from the 2013-2014 academic year, except for universities. The new Physical Education and Sports Course Curriculum is based on the objectives of Turkish National Education as stated in Article 2 of the National Education Basic Law. The aim of the secondary school Physical Education and Sports Course Curriculum is to prepare students for the next educational level by developing their lifelong movement skills, active and healthy living skills, concepts, and strategies, as well as their self-management, social, and thinking skills (MEB, 2013).

Expectations, as defined by TDK, refer to an individual's anticipation of the forms or expectations regarding certain conditions or situations. It is a motivational factor that increases the level of determination in an organism and determines thought, attitude, and behavioral states aimed at achieving specific goals. Expectations are most likely to arise under uncertain conditions. They can be realistic or unrealistic, and if the outcome falls short of expectations, it leads to a feeling of disappointment. Unexpected events that occur contrary to expectations are considered surprises. Expectations are based on cultural infrastructure and are determined by both past experiences and the possibilities individuals can imagine as a result of cultural development (Wikipedia, 2015).

Positive behaviors are instilled in students at school. Therefore, physical education lesson plans should be prepared taking into account students' expectations and desires. This way, students listen to and participate in the lessons willingly and with enthusiasm. Gender differences can lead to differences in expectations towards physical education and sports classes. Regardless of these expectation differences, the physical education and sports curriculum should be designed to maximize students' development of body control, coordination, and neuromuscular systems. This research aims to examine the expectations of secondary school students who take physical education and sports classes.

Students' positive behaviors are cultivated in schools, which makes schools an important setting for implementing physical education programs. It is crucial that these programs take into account the expectations and desires of students. When these expectations and desires are met, students actively engage in and enjoy physical education classes. The acquisition of various skills is also highly important in this regard (Yalçın, 1998).

Physical education programs implemented in educational institutions should aim to meet the movement needs of young individuals and contribute to their overall development, counteracting the sedentary lifestyle of modern times. The involvement of various stakeholders, such as administrators, expert teachers, inspectors, parents, and students, is essential in this process. Particularly, determining students' expectations from physical education classes and fulfilling those expectations are crucial for the success of the program (Sunay, Y., Sunay, H., 1996).

It is significant to identify the expectations of secondary school students regarding physical education and sports classes and ensure that these expectations are fully understood and met when preparing physical education and sports curricula. In our study, we aimed to develop a scale to measure school students' expectations from physical education and sports classes.

## **2. Method**

In this study, a survey model, which aims to collect data to identify specific characteristics of a group (Büyüköztürk, 2014), was used to develop a scale to measure the expectations of secondary school students from physical education and sports classes.

### **2.1 Sample**

The population of this study consists of secondary school students in the 5th, 6th, 7th, and 8th grades at Gazipaşa Secondary School in the Şuhut district of Afyonkarahisar province, Türkiye during the 2014-2015 academic year. To examine extreme cases related to the researched problems, a sample of 270 students (154 female, 116 male) was selected using a simple random sampling method from the 5th, 6th, 7th, and 8th grades at Gazipaşa Secondary School in the Şuhut district of Afyonkarahisar province.

### **2.2 Development of the Scale**

The scale development process includes the review of the literature, examination of the existing scales on the expectation scale, creating the item pool, field experts' control and the exploratory factor analysis.

#### **2.2.1 Exploratory Factor Analysis**

The obtained responses were analyzed to create 80 question items expressing expectations for the physical education and sports class after the literature review and the answers from the sample to open-ended questions. These expectation statements were rated on a 5-point Likert scale, ranging from "strongly agree" to "strongly disagree." Subsequently, the scale items prepared were presented to experts for content validity. The experts identified items with expression errors and provided their suggestions. According to the experts' feedback, the items with expression errors were corrected, and 30 items were removed from the scale. After the necessary adjustments, a pilot study was conducted with eight different students to further refine the scale items based on their reactions.

After the revisions, a 50-item pilot scale was administered to a total of 110 secondary school students, consisting of 48 females and 57 males, from grades 5 to 8 at a secondary school in central district, Afyonkarahisar province, during the 2021-2022 academic year.

The suitability of the data for factor analysis can be examined using the Kaiser-Meyer-Olkin (KMO) measure and Bartlett's Test of Sphericity (BTS) (Büyüköztürk, 2014). The KMO measure of .837 and the significant Bartlett's Test value of '.000' ( $p < .05$ ) indicated that the data were suitable for factor analysis. Following the factor analysis of the data obtained from the pilot study, 26 items were removed from the scale, resulting in a five-dimensional scale named "Personal Development, Topics to be Covered, Motivation, Information, and Health" with 24 items. The Cronbach's alpha coefficient of the developed scale was found to be  $\alpha = .875$ . The items of the physical education and sports class expectation scale, developed in a five-point Likert type, were rated as "Strongly Agree," "Agree," "Neutral" "Disagree," and "Strongly Disagree."

The developed scale consisted of two sections. The first section included instructions on how students should fill out the scale and the variables (gender, age, grade level, mother's education, father's education). The second section contained questions specifically designed to determine the expectations for the physical education and sports class, consisting of a total of 24 items.

As shown in Table 1, the 5 factors explain 49.621% of the total variance. Items with eigenvalues greater than 1.00 were included in the scale. The obtained values were considered as indicators that factor analysis could be applied (Büyüköztürk, 2014).

**Table 1:** Total Variance of the scale of expectations from physical education and sports class

Component	Initial Eigenvalues			Extraction Sums of Squared Loadings			Rotation Sums of Squared Loadings		
	Total	% of Variance	Cumulative	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %
1	6,359	26,494	26,494	6,359	26,494	26,494	2,625	10,937	10,937
2	1,748	7,282	33,776	1,748	7,282	33,776	2,585	10,770	21,707
3	1,477	6,154	39,930	1,477	6,154	39,930	2,435	10,144	31,851
4	1,219	5,080	45,010	1,219	5,080	45,010	2,237	9,319	41,171
5	1,107	4,611	49,621	1,107	4,611	49,621	2,028	8,450	49,621
6	,989	4,122	53,743						
7	,968	4,035	57,778						
8	,947	3,944	61,722						
9	,858	3,575	65,297						
10	,803	3,346	68,643						
11	,791	3,297	71,940						
12	,717	2,986	74,926						
13	,671	2,796	77,722						
14	,662	2,759	80,481						
15	,638	2,660	83,141						
16	,557	2,320	85,462						
17	,530	2,209	87,670						

18	,516	2,152	89,822						
19	,499	2,080	91,902						
20	,445	1,853	93,755						
21	,423	1,764	95,519						
22	,395	1,645	97,164						
23	,357	1,486	98,651						
24	,324	1,349	100,000						

**Table 2:** Component Matrix the scale of expectations from physical education and sports class

Items	Components				
	1	2	3	4	5
I1	,594				
I6	,627				
I7	,479				
I8	,586				
I9	,617				
I10	,540				
I15		,595			
I16		,713			
I17		,499			
I18		,533			
I19		,498			
I20			,590		
I21			,708		
I22			,681		
I23			,403		
I24			,372		
I11				,777	
I12				,676	
I13				,587	
I14				,605	
I2					,710
I3					,643
I4					,543
I5					,461

As seen in Table 2, the Rotated Component Matrix indicates that there are a total of 6 items in Factor 1, 5 items in Factor 2, 5 items in Factor 3, 4 items in Factor 4, and 4 items in Factor 5. The factor loadings for the 24 items in the scale range between 0.37 and 0.77.

As seen in Table 3, the correlation coefficients obtained from the item-total correlations range from 0.31 to 0.62, and the item-remaining correlations range from 0.25 to 0.57. All items are statistically significant. The items with item-total correlations of 0.30 or higher effectively distinguish the respondents in the study, which is why these 24 items are included in the scale (Büyüköztürk, 2014).

**Table 3:** Results of Pearson Product-Moment Correlation  
Analysis conducted to determine the Item-Total and Item-Remaining  
correlations of the Physical Education and Sports Expectations Scale

Items	Item Total r	Item remaining r	p
Item1	0.316	0.252	.000
Item2	0.525	0.471	.000
Item3	0.439	0.382	.000
Item4	0.399	0.331	.000
Item5	0.385	0.305	.000
Item6	0.463	0.392	.000
Item7	0.536	0.477	.000
Item8	0.544	0.484	.000
Item9	0.624	0.571	.000
Item10	0.519	0.446	.000
Item11	0.522	0.457	.000
Item12	0.599	0.545	.000
Item13	0.573	0.514	.000
Item14	0.441	0.375	.000
Item15	0.576	0.520	.000
Item16	0.504	0.440	.000
Item17	0.628	0.569	.000
Item18	0.571	0.426	.000
Item19	0.545	0.479	.000
Item20	0.502	0.435	.000
Item21	0.404	0.335	.000
Item22	0.492	0.420	.000
Item23	0.593	0.533	.000
Item24	0.548	0.487	.000

When examining the correlation coefficients related to the Expectations Scale for Physical Education and Sports in Table 3, it is observed that there is mostly a significant but moderate level of relationship between the factors. A correlation coefficient of +1.00 indicates a positive and strong relationship between two measures, while a coefficient of -1.00 indicates a negative and strong relationship (Tavşancıl, 2014).

### 3. Discussion and Conclusion

In the first phase of the study, a scale aimed to measure the expectations of secondary school students from physical education and sports classes has been developed. Firstly, exploratory factor analysis has been employed for the process of scale development. As a result of this analysis, it has been found out that the data are convenient for the exploratory factor analysis (KMO= .837, Bartlett Sphericity = .000). Absolute value for the factor loading has been decided as .40 and the 14 items which do not meet the requirements has been excluded from the scale. It has been decided that the scale has composed of three sub-dimensions explaining the 49,621 % of the total variance.

Item analysis has been made for the items decided to take place in the scale. As a result of the analysis, it has been concluded that all the items have a meaningful and significant relationship with the total score of the scale at the level of 0.01. The Cronbach's Alpha value of the scale has been found as .875.

It has been concluded that the scale can be used to measure the expectation of the students from physical education and sports classes, furthermore, it is suggested that the scale can be adopted to other education levels.

### **Conflict of Interest Statement**

The authors declare no conflicts of interest.

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