



Movement Training Course View Scale Validity And Reliability of Study

Pelin USTAOĞLU HOŞVER^{1A}, Hayriye Merve ERİŞ HATIRCI^{2B},
Selahattin AKPINAR^{1C}

¹Düzce University, Faculty of Sports Science, Düzce, Turkey.

²Düzce University, Faculty of Education, Düzce, Turkey.

Address Correspondence to P. USTAOĞLU HOŞVER: e-mail: pelinustaoglu@duzce.edu.tr

Conflicts of Interest: The author(s) has no conflict of interest to declare.

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Ethical Statement: It is declared that scientific and ethical principles have been followed while carrying out and writing this study and that all the sources used have been properly cited.

(Date Of Received): 15/12/2022 (Date of Acceptance): 28.02.2023 (Date of Publication): 30.04.2023

A: Orcid ID: 0000-0001-6681-7628 B: Orcid ID: 0000-0002-5726-6307 C: Orcid ID: 0000-0002-1676-4465

Abstract

Movement education is important for the development of children, so it should be ensured that children gain multiple experiences with movement education curriculum prepared by experts suitable for children's developmental periods. This should only be provided by experts who have taken or have taken the movement education course at universities' faculties of sports sciences or physical education and sports colleges. The aim of this research is to develop a valid and reliable scale in order to determine the attitudes of the students who take the movement education course towards the movement education course. The study group of this research consisted of 300 students, 178 of whom were enrolled in physical education and sports teaching and 122 of them were enrolled in the department of coaching education and took the movement training course, studying at the faculties of sports sciences and sports sciences schools of various universities in the spring semester of the 2021-2022 academic year. forms. 103 of the students are female and 197 are male. Cronbach Alpha coefficient was calculated to determine the reliability of the scale. As a result of expert opinion and exploratory factor analysis, a five-point Likert-type scale consisting of 26 items was obtained. The scale consists of three dimensions. In order to determine the internal consistency of the scale, the item-total correlation was calculated and it was seen that the correlation values of all items were high. The Cronbach Alpha reliability coefficient, which was calculated to determine the reliability of the scale, was calculated as .962. When the findings related to the validity and reliability studies of the scale are examined, it can be said that the scale is a valid and reliable measurement tool that can measure the attitudes of the students towards the movement education lesson.

Keywords: Movement training, Movement, University students

INTRODUCTION

Movement, which is among the basic needs of human beings, is one of the most effective methods that contribute to the protection and maintenance of people's mental, physical and social health (1). Movement is the location and position changes of the human body or different organs that occur in a dynamic process towards a specific goal in time and space (19).

Humans need to act in order to maintain a quality, healthy and qualified life (12).

With the hourglass model, Gallahue examines motor development stages in four stages: reflexive movements, primitive movements, basic movements and sportive movements (9). In early childhood, children between the ages of two and seven acquire basic skills. (9). These consist of the first basic movement forms such as walking, running, jumping, throwing, jumping, climbing, turning, rolling, hanging, overcoming, swinging, reaching, bending, crouching (9).

These movement forms are thought to be basic movements in terms of children's motor development (7). The basic movements phase consists of three phases: the initial phase, the first phase and the maturity phase (9, 17). Gallahue et al. argue that during the basic movements period, children should have acquired basic movement skills such as running, jumping, throwing, holding, balance and galloping, and they should be ready for the sports movements period, which is the last stage of the motor development period (9).

Children's coordination and rhythm skills are weak in the initial stage, which is the first stage of the basic movement period. At this stage, children try to discover their skills and make an effort to try. The stage in which children provide coordination and control in their movement skills is the first stage. In the first stage, it is seen that children's movements are more controlled and harmonious. The last stage is defined as the maturity stage. Children are about five years old at this stage. In this stage, children exhibit more harmonious, effective and controlled movements. (17).

At the same time, people complete the basic movement forms in the developmental sense in early childhood and are ready to perform these skills at the mature stage (20). The motor development process, which is among the important elements for child development, is in interaction with movement (17).

Since movement is important and valuable for the development of children, the most appropriate activities should be found to meet the mobility needs of children and children should be directed to these activities (1). The most sensitive period in the formation of basic movement skills covers the 6-12 age range of children. Children's ability to perform movements fluently and with fewer errors depends on the development of their coordinative skills. Movement training plays an important role in the development of coordinative skills (4). Movement education is a training program that enables children to perform motor behaviors in high-grade wide ranges of motion throughout their lives, allows them to get to know their bodies, makes them aware of their abilities, increases their physical fitness, improves neuromuscular coordination, supports social emotional development, improves learning ability, provides field dominance, and perceptual motor skills. It is all of the environmental factors that contribute to its development (11, 17).

The aims of movement education are to enable children to develop physical fitness, social emotional development, neuromuscular coordination, develop learning skills, evaluate their free time, and develop their sense of rhythm (3).

Movement education is important for the development of children, so it should be ensured that children gain multiple experiences with movement education curriculum prepared in accordance with the developmental periods of children (4).

One of the main purposes of movement education is to support the development of fine and gross motor skills of children, and to ensure that children are ready for the period of sports movements, as well as performing their daily life activities and self-care skills individually without support (21).

Movement education programs are largely included in the revised national education physical education and sports programs in our country, and the importance of movement education is frequently emphasized (14).

One of the main purposes of physical education and sports course, which is one of the most important building blocks of general education, is to maximize the movement capacity of children by contributing to their physical development through movements. In order to fulfill these aims in physical education and sports, three main basic elements are needed; these are a well-planned syllabus, student and teacher. These three elements are important elements that shape and direct physical education and sports lessons (22)

In the period of basic movements, it is not possible for children to learn their movements individually when they reach a certain level of maturity, at this stage families, teachers and educators are of great importance (9).

The most basic aims of teachers in physical education and sports lessons; It is the student's willingness and willingness to participate in the movement education practices applied in physical education and sports lessons, reaching the goals of the lesson, and forming a positive perspective towards movement education and sports (16).

Coaches and physical education teachers have a great role in directing children and youth to sports. Trainers are in constant contact with children in sports clubs, physical education teachers in schools and they are responsible for fulfilling their responsibilities by leading the children. (17).

As Küçükahmet (13) said, "The teacher himself is the magic wand in teaching", it is thought that the attitudes of future physical education teacher candidates and trainers towards the movement education lesson, which is thought to contribute significantly to all developmental areas of children, are also important.

As a result of the national and international literature reviews, no scale similar or identical to this study was found, and with this research, it was aimed to develop a valid and reliable scale in order to determine the attitudes of the students taking the movement education course towards the movement education course.

METHOD

Working group

The study group of this research consists of students studying at various universities' faculties of sports sciences and physical education and sports colleges in the spring semester of the 2021-2022 academic year and who took the movement education course. A total of 300 students participated in the study voluntarily. The study group, aged between mean 18 and 26, consists of 103 female and 197 male participants, and 178 of these participants are studying physical education and sports teaching and 122 of them are studying in coaching education

Data Collection and Analysis

Writing Items

In the preliminary stage of the study, first of all, the literature was examined and interviews were made with the academicians who gave movement education courses. In the light of the information obtained here, 41 items related to the movement training course were written.

Content Validity

The determined items were sent to the experts who gave movement training courses to be evaluated in terms of content validity, and necessary corrections were made in line with their feedback. In addition to these, opinions about the writing of the items were obtained from an assessment and evaluation expert. As a result of these opinions, 2 items (items 37 and 25) were removed from the scale. After the final version of the scale was created, the file created via the Google form was sent to the participants via e-mail and whatsapp, and the data collection process was completed between 20.05.2022 and 12.10.2022.

Data Collection and Application

Scale items were prepared in a 5-point Likert-type rating scale format. Scale items "1. I strongly disagree", "2. I disagree", "3. I am undecided", "4. I agree", "5. I totally agree". The scale was delivered to the participants online in the internet environment. Online forms were sent to 342 people, and the forms of 300 people were completely determined and included in the research.

Reliability Analysis

Exploratory factor analysis was used to determine the construct validity of the scale. In order to determine the reliability of the scale, the Cronbach Alpha coefficient was calculated.

RESULTS

Findings on Exploratory Factor Analysis (FFA)

Factor analysis is a statistical method that aims to determine the sub-dimensions in the measured structure in scale development studies. By combining a large number of variables, it produces fewer meaningful new variables. Exploratory factor analysis, on the other hand, is a technique that aims to determine the basic relationships between the variables of a structure whose sub-dimensions are not certain, and to reveal the existing theoretical structure (5) In this study, exploratory factor analysis was used to ensure construct validity as a stage of scale development.

Before applying the exploratory factor analysis, it was ensured that the data set was not missing and the reverse items were coded. Kaiser-Meyer-Olsen (KMO) statistics and Barlett's sphericity statistics values were examined and these values were found to be statistically significant (KMO = 0.957 and $p < 0.01$). According to Hutcheson and Sofroniou (1999), the KMO value being between 0.80 and 0.90 indicates the adequacy of the sample size. Field (6) stated that the correlation between the items should be sufficient and the Barlett value should be significant for factor analysis. When the available values were examined, it was seen that the data set was suitable for exploratory factor analysis.

Exploratory factor analysis was performed without any limitation on the number of factors and by applying varimax rotation. Items with a minimum factor load value of 0.40 and above were included in the scale. In determining the factor structure of the scale, it is accepted to reduce the item factor loads to 0.30 (2).

As a result of the exploratory factor analysis, 12 items (2,5,8,9,10,14,21,28,,32,38,39,40) with factor loadings below 0.40 were loaded under two different factors at the same time. removed from the scale. The final version of the scale consisting of 3 factors and 26 items was obtained. The first factor is the attitudes towards the contribution of the movement education course to all developmental areas of children, the second factor is the negative attitudes towards the movement education course, and the third factor is the positive attitudes towards the movement education course.

The total explained variance is 64.49%. The variance explained for the 1st factor was 29,978, for the second factor 19,429, for the 3rd factor 15,083. The factor loading values of the scale items are shown in Table 1.

Table 1. Factor Loads of Items

1. FACTOR		2. FACTOR		3. FACTOR	
Item No	Factor Load	Item No	Factor Load	Item No	Factor Load
Item12	.810	Item24	.800	Item1	.758
Item19	.766	Item23	.779	Item3	.746
Item30	.750	Item26	.745	Item15	.656
Item13	.746	Item27	.738	Item20	.613
Item17	.728	Item16	.663	Item7	.601
Item18	.710	Item6	.619		
Item29	.687	Item4	.600		
Item31	.672				
Item33	.671				
Item34	.661				
Item22	.648				
Item36	.598				
Item11	.578				
Item35	.510				
Item36	.736	.960	Item20	.786	.960

When Table 1 is examined, it is seen that the factor loads of the items in the measurement tool are between .510 and .810. Scale items have very high factor loads. There are 14 items in the 1st factor, 7 items in the 2nd factor and 5 items in the 3rd factor.

Reliability and Item Total Correlation

In order to ensure the internal reliability of the scale, item analysis based on item-total correlation was performed. In order to determine the reliability of the scale, the Cronbach Alpha reliability coefficient was calculated. Item-total correlation expresses the relationship between the value of each item in the measurement tool and the total value taken from the entire measurement tool. On a scale, values above 00.30 are considered good values. In addition, item-total correlations are expected not to be negative (16,20). The Cronbach Alpha reliability coefficient is a measure of the internal consistency of the scale between test scores, and values of 0.70 and above are considered sufficient for the reliability of the scale (2). In this study, the Cronbach Alpha reliability coefficient was calculated as .962. When the reliability of the sub-dimensions was calculated, the Cronbach's alpha coefficients were found to be 0.95 for the 1st factor, 0.90 for the 2nd factor, and 0.887 for the 3rd factor. It can be said that the scale is quite reliable. The item-total correlation of the scale is given in Table 2.

Table 2. Item-Total Correlation

Item No	Item-Total Correlation	Cronbach Alpha Value When Item Is Deleted	Item No	Item-Total Correlation	Cronbach Alpha Value When Item Is Deleted
Item12	.769	.960	Item35	.647	.961
Item19	.785	.960	Item24	.634	.961
Item30	.723	.960	Item23	.544	.962
Item13	.703	.960	Item26	.590	.962
Item17	.661	.961	Item27	.740	.960
Item18	.764	.960	Item16	.629	.961
Item29	.561	.960	Item6	.730	.960
Item31	.723	.960	Item4	.664	.961
Item33	.777	.960	Item1	.660	.961
Item34	.800	.960	Item3	.679	.961
Item22	.715	.960	Item15	.687	.961
Item11	.685	.961	Item7	.735	.960
% of Variance	29.978			19.429	15.083

When Table 2 is examined, it is seen that the item-total correlation coefficients vary between .544 and .800. Since each correlation coefficient is higher than 0.30, it can be said that the internal consistency of the scale is high. In addition, when we remove any item in the scale from the scale, it is seen that the Cronbach Alpha coefficient decreases.

DISCUSSION AND CONCLUSION

With this research, it is aimed to develop a valid and reliable scale in order to determine the attitudes of the students who take the movement education course towards the movement education course. The higher the score from the scale, the more positive the attitude towards the movement training course.

As a result of the expert opinion and exploratory factor analysis for the draft form consisting of 41 items at the beginning, a five-point Likert type scale consisting of 26 items was obtained. The scale consists of three dimensions.

In order to determine the internal consistency of the scale, the item-total correlation was calculated and it was seen that the correlation values of all items were high. The Cronbach Alpha reliability coefficient, which was calculated to determine the reliability of the scale, was calculated as .962.

When the findings related to the validity and reliability studies of the scale are examined, it can be said that the scale is a valid and reliable measurement tool that can measure the attitudes of the students towards the movement education lesson.

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