CHAPTER 3

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In this chapter, the procedure for obtaining data regarding the attitude of the subjects as depicted through objectives of physical education i.e. physical fitness development, emotional development, personality development and value of subject of those male physical education teachers working in different colleges of Punjab and U.T. Chandigarh has been described. The subjects, tools used, collection of data, scoring of the scale, method used and the statistical procedures adopted are given below.

Participants

Data for this study were obtained from 100 male physical education teachers working in different colleges of Punjab and U.T. Chandigarh. Respondents were only those who indicated a willingness to complete the test instrument. Thus the sample could be described as incidental. However, no known bias operated in the selection of the participants.

Tools used

In India, very little research work has been done in attitude assessment especially in the field of physical education. Therefore, it was felt as a need of the hour to assess teachers attitude towards physical education. Therefore, the purpose of this study was to develop a standard attitude scale designed to investigate teachers attitude towards physical education so that maximum possible requirements of the study could be fulfilled. The details of the procedure and techniques followed in developing and standardizing the scale have been given in this chapter.
The following physical education objectives were used for attitude scale:

1. Physical fitness development.
2. Emotional development.
3. Social development.
4. Personality development.
5. Value of subject.

Physical education attitude scale for teachers

In order to assess subjects attitude towards physical education, a five point Likert type scale was developed. The scale is an agree-disagree type and subjects were to indicate the intensity of their attitude. The scale was validated by a panel of judges who are physical education academic professionals and researchers. This scale is based upon physical education objectives.

First, the general objectives of physical education will be reviewed to select concepts for the statements to be used in this attitude scale.

The present study under investigation will be carried out on the basis of these objectives as listed below:

According to Barrow (1975), the aim of physical education is:

“The optimum development of the physically, socially and mentally integrated and adjusted individual through guided instruction and participation in selected total-body sports, rhythmic and gymnastic activities conducted according to social and hygienic standards”.

According to Barrow (1973) objectives are more specific statements
of purposes than an aim, it is neither so remote nor so abstract objectives are really short-term aims, and they are part of whole. It has been already pointed out that for field of learning there would be a number of major objectives.

The following is a hierarchy of objectives which have been agreed upon by many outstanding personalities in this field. Probably, the basis for these major goals was first established by Hetherington (1922) and later elaborated upon by Nash (1948) and Williams (1959).

1. Organic development including fitness.
2. Psychomotor domain including sports skills.
3. Cognitive developing including knowledge and understandings associated with sports and exercise.
4. Emotional and social development.

**Brownell and Hagman (1973)**

Brownell and Hagman base objectives on their definition of physical education. They define this specialized field as “the accumulation of wholesome experience through participation in large muscle activities that promote optimum growth and development”. They point out in the light of this definition, physical education concerns itself with four general objectives.

1. Objectives related to the development of physical fitness.
2. Objectives related to the development of social and motor skills.
3. Objectives related to the development of knowledge and understanding.
4. Objectives related to the development of habits, attitudes and appreciation's.
Cowell and Hazelton (1973)

Cowell and Hazelton classify the general and specific objectives and physical education into five groups: (1) organic power, the ability to maintain adaptive power effort, (2) neuromuscular development, (3) personal social attitudes and adjustment, (4) interpretive and intellectual development, and (5) emotional responsiveness.

Organic

The physical development objective: The value of this objective is based on the fact that an individual will be more active, have better performance and be healthier if the organic system of the body are adequately developed and function properly.

Neuromuscular

The motor development objective: The name motor is derived from the relationship to a nerve or nerve fiber which connects the central nervous system or a ganglion with a muscle. Effective motor movement is dependent upon a harmonious working together of the muscular and nervous system.

Interpretive

The mental development objective: The name mental development objective deals with the accumulation of a body of knowledge and the ability to think and to interpret this knowledge. Physical activities must be learned, hence, there is a need for thinking on the part of the intellectual mechanism, with resulting acquisition of knowledge.
Emotional

The human relations objective: The human relations objective is concerned with helping an individual in making personal adjustment, group adjustment, and adjustment as a member of society. Activities in the physical education programme offer one of the best opportunities for making these adjustments provided there is proper leadership.

Procedure of data collection

The physical education attitude scales were administered, supervised and explained personally. Physical education attitude scale was used in first phase of data collection. This was administered individually on the physical education teachers. On the first page of the scale introduction and detailed instructions were given.

Introduction included aim of the present study and purpose of this scale and the major areas covered in it. Instructions included a sample filled responses request to fill in all items, an appeal for free and frank opinion and assurance of confidentiality of responses and of their use only for research work. The entire data was collected personally by visiting the respondents in their respective colleges.

Scoring of the scale

Physical education attitude scale was scored by adopting Likert’s method, that is, assigning each response category a numerical value from 5 to 1 for strongly agree, agree, undecided, disagree and strongly disagree for positive statement. For negative statement a reverse pattern was followed.
### Statistical techniques used

Various statistical techniques were used for developing the attitude scale as well as for analyzing final data. These techniques are briefly reported below:

#### Techniques used in the development of the scale

1. **Principal axes method of factorial analysis followed by the Scree test and varimax rotation** was employed for identifying dimensions underlying the scale. The method followed allows the identification of factors whether the influence of the pre-conceived and subjective ideas about the dimensions of physical education.

2. To determine the internal consistency reliabilities, Cronbach’s alpha for each scale has computed and for test-retest reliability, the final test was administered to 29 physical education teachers.

#### Technique used for the analysis of final data

The data obtained on the factor analytical obtained dimensions of the scale were converted to raw scores and subjected to statistical treatment from three different angles.

1. **Descriptive statistics** where mean, standard deviation, measures of
skewness and Kurtosis were computed.

2. The t-test was applied to compare the attitude of teachers from rural and urban background.

3. ANOVA (F-test) was applied to compare the attitude of physical education teachers of Panjab University, Chandigarh; Punjabi University, Patiala and Guru Nanak Dev University, Amritsar.