

# A SCALE OF PERCEPTION OF TEACHER CHARACTERISTICS (SPTC)

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An important trend in Psychology and Education, during the past few decades has been an increasing concern with measurement instruments. A diversity of scales of measurements have been designed by research workers in Psychology, Sociology, Education and related fields -- These scales seek to measure or quantify psycho-sociological characteristics of individuals or groups.

Many studies have been made for the purpose of identifying and listing personality characteristics or qualities of teachers which contribute to effective teaching -(Singer 1978; Coulter 1978, Witking 1977, Saracho *et al* 1981, Richter *et al* 1983, Aspy 1972, Sheppard 1978, Barr 1948, Ryan 1952, 1960, 1961). These studies have resulted in the identification of a number of desirable teacher characteristics. However, very limited efforts have been made to quantify or intensify these characteristics by those involved in the education of children. An instrument designed to measure an individual's perception of the significance or desirability of each of a group of given teacher characteristics will indicate not only the perceived desirability of each of the characteristics, but will also assist in obtaining an overall measure of perception of the teacher by others and may even by herself.

The Scale of Perception of Teacher Characteristics (SPTC) described in this paper represents an attempt made to develop an instrument of this nature.

## Objectives of the SPTC

SPTC has been designed with the following purposes in view;

to provide an instrument to measure an individual's perception of the relative significance of each of a group of given teacher characteristics which have been empirically recognised to be desirable for secondary school teachers.

The instrument can be used either as a self-rating device enabling a teacher to rate her own predominant characteristics or an observer rating enabling School Principals, other teachers and students to rate a given on the listed characteristics. This instrument will measure an individual's overall perception of the given characteristics, expressed by means of a single aggregate score.

## Method employed in developing the SPTC

Identification and validation of Items of the SPTC.

Since the SPTC purports to measure an individual's perception of the desirability of teacher characteristics, first task was to identify the characteristics. The validity of the scale largely depends on the teacher characteristics. The teacher characteristics identified by the authors in a previous research study (Sedera and Kularatne 1986, Kularatne 1982). See the list of traits in Figure 01.

A questionnaire designed to elicit free responses, on the characteristics deemed to be desirable for Secondary School Teachers, was administered to a sample of principals, teachers and pupils. The respondents were required to describe, name or list characteristics which they perceive to be desirable for Secondary School Teachers. Responses received were analysed. All characteristics mentioned were identified, and a count was taken of the frequency with which each characteristic had been mentioned by the respondents. Besides available literature or studies of teacher characteristics (Symonds 1955, Taylor 1962, Brown 1966, Delamont 1978, Barr 1961, Gallup 1976, Chaikin 1978, McKeachie 1980) made hitherto, in Sri Lanka and elsewhere were reviewed in order to check whether those identified by the Sri Lankan sample included characteristics which these studies had discovered to be generally desirable for Secondary School Teachers. Based on these analyses and comparisons, 25 characteristics were identified. These 25 characteristics are included in the SPTC (Sedere and Kularatne 1985). These were found to belong, to the following three broad categories.

- (a) Cognitive Characteristics
- (b) Pedagogical Characteristics
- (c) Temperamental Characteristics

Having determined the characteristics to be subjected to measurement, it was necessary to develop a scale by means of which the perceived significance of each of them could be assessed. This in turn required the identification of the ranks to be awarded or the relative significance to be attributed to each of these traits. For this purpose an instrument employing the paired Comparison Technique (Torgerson 1958; Edwards 1969; Sedere 1983) was developed. This presented the subjects with a paired comparison tasks in which they were required to compare two of the traits in pairs and selected the trait which they perceive to be more important for a Secondary School Teacher. Each subject was accordingly expected to make 300 comparative judgements in respect of the 25 characteristics.

The paired comparison data was then analysed by F, P and Z matrices as given in Literature (Torgerson 1958, Edwards 1969 and Sedere 1983) to derive the scale values.

### **Pilot Study**

The questionnaire so designed was subjected to a pilot study by administering it to a group of principals, teachers and pupils in a few selected schools. After the pilot administration certain revisions were made in the instructions and descriptions of teacher characteristics and the final form of the questionnaire was arrived at.

### **Selection of Sample**

Random stratified sampling procedure was used in selection of a sample. Forty secondary schools from Kandy Municipality and its suburbs and another forty from the rest of Kandy Education Region, representing urban and rural schools respectively were randomly drawn. Classification of schools used in drawing the sample was as follows.

- (a) Junior Schools (Kanishtha Vidyalayas)
- (b) Senior Schools (Maha Vidyalayas)
- (c) Central Schools and Collegiate Schools

From the schools selected in this manner, the following groups of subjects were chosen.

- (a) All principals of the selected schools (N=72)
- (b) Four secondary teachers from each school selected randomly from the staff lists (N=300)
- (c) Ten students in grade 10 and/or ten students in grade 11 from each schools in a smaller sample of 23 schools drawn from the larger sample using the same stratified sampling procedure (N = 320).

The sample of principals so selected included 60 males and 12 females. Their ages ranged from 40 years to 60 years. There were trained graduates and trained non-graduate teachers. Teacher sample consisted of 148 males and 152 females, with ages ranging from 30 years to a little over 50 years. There were trained graduates, trained non-graduates, graduates and GCE (OL/AL) qualified persons among them. Their teaching experience varied from about 5 years to over 25 years. The teacher sample consisted of teachers engaged in teaching the whole range of subjects in the secondary school curriculum. The student sample was made of 162 males and 158 females. Their ages ranged from 14 years to 20 years, and included children from different social classes and backgrounds. The total sample which responded to the questionnaire included 692 persons.

### **Administration of the Questionnaire**

Investigators visited the selected schools and distributed the questionnaire to selected teachers and the principals. Purposes of the questionnaire were explained and clarification offered when requested. The completed questionnaire was returned by post. Investigators personally administered the questionnaire to selected students. Purposes of the questionnaire and the method of responding were explained. Description of teacher characteristics provided were further explained and the questionnaire was completed in the presence of the investigators.

### **Completion of Scale Values**

Perceptions of the importance of selected teacher characteristics, examined by means of the paired comparison technique were analysed following procedures specified by Torgerson (1958), Edwards (1968) and Sedere (1980). Equal interval scale values computed for the 25 characteristics in respect of the total sample made up of 679 subjects. Following the F, P and Z Matrices analysis, the Z scores in each column were summed up and the mean of this value represented the scale value of the characteristic.

Linear transformations were made of the scale values so obtained in order to set the lowest scale value equal to zero. Scale values of the 25 characteristics so derived was found to vary from 0.0 to 1.265. These values were then multiplied by 10 and were rounded off to the nearest integral value. Scale values for the 25 characteristics so derived ranged from 1 to 13.

### **Nature of the SPTC**

The SPTC consisting of 3 parts, namely an Instructional Manual, A Response Sheet and an Examiner's Manual.

#### **The Instructional Manual**

This part explains how the scale is to be administered and also provides instruction to the subjects on the manner in which they are expected to respond. Subjects are first required to study the list containing the description of the 25 teacher characteristics presented under 25 Key Phrases. After a study of these descriptions, they are required to indicate the 10 characteristics which they perceive to be most important and then to select the 5 most important characteristics from among the 10 selected earlier. In recording their responses subjects are required to refer back to the descriptive statements as and when they feel necessary.

#### **The Response Sheet**

The subjects record their responses on a sheet provided for this purpose. It contains the list of 25 Key Phrases which designate the teacher characteristics arranged in a random order and two columns against the Key Phrases where the ten most important, and the 5 most important characteristics perceived to be desirable for ~~secondary~~ ~~perceived to be desirable for~~ secondary school teachers are to be checked. See Figure 01.

#### **The Examiner Manual**

Examiner Manual describes the scoring procedure and also provided some statistical data which may be of use in interpreting the scores. It also indicates some of the possible uses and the interpretations of assessments obtained through the SPTC. The score to be awarded for each trait is the scale value of that particular trait. It was seen that the scale values range from 01 to 13. The Table 01 indicates the highest and the lowest and individual may possibly score in respect of the perception of the 10 most important or the 5 most important characteristics.

#### **Reliability of the SPTC**

The reliability of the instrument was examined by test-retest method with a sample of secondary school teachers as a self rating device and with secondary school students as a rating device of their own teachers teaching various disciplines in the school curriculum. As a self rating device the test-retest reliability was as high as 0.76 and found to be more reliable when the most important five traits were checked.

The student ratings of the teacher was found to be less reliable and coefficient of stability varied from 0.20 to 0.45. Once again higher coefficients were observed with the most important five characteristics. However, this do not rule out the necessity of rating the most important ten characteristics.

### Uses of the SPTC and the Interpretation of Scores

SPTC can be employed either to determine the image of an ideal teacher or the real image of a particular teacher, held by an individual when the objective is to determine a person's ideal teacher image, he will be required to select the characteristics he perceives to be most important for a teacher. When the objective is to determine a person's real image of a particular teacher, he will be required to select the most predominant characteristics he perceives to be actually present in the particular teacher.

Some of the uses and the interpretations of assessments made using the SPTC with the above intentions in view may now be briefly discussed.

*SPTC may be employed for self evaluation by teachers.* It may be used to measure a teacher's self image of an ideal teacher, that is to determine a teacher's perception of the desirability of given characteristics. A high score in this instance may be interpreted as indicating this teacher's awareness, and a more positive behaviour and hence a greater commitment towards teacher characteristics which have been generally recognised to be most desirable for secondary school teachers. Such teachers are more likely to be committed towards the acquisition of those traits and are more likely to possess them and to be therefore more effective teachers. Since the traits contributing mainly to a high score are cognitive and pedagogical, high scoring teachers may be regarded as possessing a correct perception of the specific traits related to effective teaching in the secondary school.

On the other hand, a high score obtained on assessment of a teacher's self image may be interpreted as indicating a more positive self concept and hence a teacher who approaches his task with a sense of greater self confidence.

A low score on the other hand, may be interpreted as indicative of the opposite trends. A teacher obtaining a low score on self assessment, is most likely to possess a more negative behaviour towards those important teacher traits, and little commitment towards their acquisition. They are less likely to actually possess those cognitive and pedagogical traits related to effective teaching. Since a low score is made up mainly of temperamental traits, it is likely that such teachers depend more on superficial personality traits, perhaps to make amends for the lack of more significance ones. Chances that such persons are confident and effective secondary teachers are likely to be remote. However, for a teacher who is bent on professional growth a low self assessment score may reveal his shortcomings and needed changes. SPTC can in this way contribute towards a teacher's self professional growth.

*SPTC may be employed by principals and other school administrators to determine the extent to which a teacher actually possess the characteristics, as they perceive, that is to measure their perception of real teacher image. Results of such evaluations may provide a more reasonable basis for providing the teachers with rewards, incentives and recognition or direction, advice and guidance needed for a teacher's professional development and job satisfaction. However, as the reliability indicators are somewhat towards the low side one ought to be very careful when this instrument is used other than as a self rating device.*

*SPTC may also be employed as a pre and post test for self evaluation of teachers or prospective teachers following professional development courses. Results may reveal the character of entering and terminal behaviour, the extent of perceived growth that has accrued from the course and may yield some indication of the effectiveness of the course itself.*

This scale can also be employed by the instructors of the course participants, at the termination of the course for purposes of summative evaluation of teacher characteristics perceived to be actually present in the course participants.

*Another possible use of the SPTC lies in the field of social interaction in educational settings. Characteristics perceived to be necessary for a teacher by individuals who are in constant interaction with him like the students, other teachers and school principals are in effect role expectation held of teacher by those other role incumbents enacting complementary roles. Hence, self and other evaluation made of a teacher simultaneously using the SPTC may reveal the extent of of consensues occuring within the group, and hence of the amount of conflict or harmony most likely to be prevailing within the group when the SPTC is used in this way, it provides a very useful measure of the quality of social interaction, taking place within the classroom and the school.*

When the SPTC is employed by the school heads and others supervising the work of teachers to measure the characteristics they perceive to be actually present in teachers of a particular school, the results may be used *for the evaluation of the quality of teaching and learning or the educational standard of the school.* Teachers who score high on the TCPS from their superiors or heads are more likely to possess those traits related to effective teaching in the secondary schools where academic excellence is valued most. Consequently, a school with such teachers is likely to be one with better educational standards. SPTC may therefore be employed to discover the overall quality or standard of education in a school.

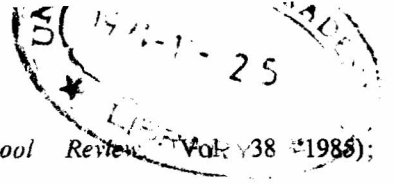
*For research workers, the SPTC provides a useful tool for collecting data about the characteristics of teachers; real and ideal, when they are preoccupied with educational problems, in which teacher characteristics constitute one of the variables. In a study by Rajapakse and Sedera (1987) it was found that some of the twenty five teacher characteristics are more required for some of the subjects of the school curriculum and the most important five characteristics were found more valid. However, the validity of the most important five characteristics was found due to the fact of elimination at the first round of response selecting the most important ten characteristics.*

**Availability**

The SPTC is available in English and Sinhalese languages can be obtained from either of the authors. However, it is not so far made available on commercial scale as a printed test.

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Figure 01

**SPTC - ANSWER SHEET**  
**SCALE OF PERCEPTION OF TEACHER CHARACTERISTICS**

Read the twenty five traits given below and indicate with a ' ' mark in column (1) the most prevalent ten traits. Once you finish marking in column (1) consider the ten traits that you have marked in column (1) and indicate with a ' ' mark in column (2) the most prevalent five traits.

T r a i t s	(1) The most prevalent ten traits out of the twenty five	(2) The most prevalent five traits out of the ten
Understanding of Children	_____	_____
Ability to Discipline	_____	_____
Stimulatingness	_____	_____
Scholarliness	_____	_____
Preparedness	_____	_____
Efficiency	_____	_____
Ethicalness	_____	_____
Professional Knowledge	_____	_____
Interest in Guidance	_____	_____
Interest in Subject	_____	_____
Orderliness	_____	_____
Recognition and Praise	_____	_____
Objectivity	_____	_____
Expressiveness	_____	_____
Cooperativeness	_____	_____
Fairness	_____	_____
Kindliness	_____	_____
Democratic Attitude	_____	_____
Leadership	_____	_____
Friendliness	_____	_____
Emotional Stability	_____	_____
Interest in Extra Curricular Activities	_____	_____
Sociability	_____	_____
Cheerfulness	_____	_____
Pleasantness	_____	_____