



## Construction and Standardization of a Scale for Measuring Self Concept of the Learners Studying Through Formal and Distance Mode at all Levels.

### KEYWORDS

Self concept, standardization of self concept scale, dimensions of self concept scale, scoring key

**Dr. Priyanka Bose (Das)**

Assistant Professor Department of Education Budge Budge College, Kolkata, India

**Professor Debasri Banerjee**

Head of the Department Department of Education University of Calcutta, Alipore Campus

**ABSTRACT** *Self concept is the composite of ideas, feelings and attitudes that a person has about his or her own identity, worth, capabilities and limitations. Such factors as the values and opinions of others, especially in the formative year of early childhood, play an important role in the development of self-concept. It is found that most of the tools available for measurement of self concept were mainly on the formal school students' self concept and many of them are made exclusively for young learners, need was felt to develop a self concept inventory suitable for adult learners in both distance and formal mode.*

*So a Likert type self concept scale has been developed and standardized empirically by the researcher.*

### Introduction

After more than a decade of relative neglect, self-concept is enjoying renewed popularity and attention by both researchers and practitioners. There is growing awareness that of all the perceptions we experience in the course of living, none has more profound significance than the perceptions we hold regarding our own personal existence-our concept of who we are and how we fit into the world. Rogers (1951) defined the self-concept as "an organized configuration of perceptions of the self which are admissible to awareness.

Self-concept may be defined as the totality of a complex, organized, and dynamic system of learned beliefs, attitudes and opinions that each person holds to be true about his or her personal existence.

It is a multi-dimensional construct that refers to an individual's perception of "self" in relation to any number of characteristics, such as academics (and nonacademic), gender roles and sexuality, racial identity, and many others. While closely related with [self-concept clarity](#) (which "refers to the extent to which [self-knowledge](#) is clearly and confidently defined, internally consistent, and temporally stable"), it presupposes but is distinguishable from [self-awareness](#), which is simply an individual's awareness of their self. It is also more general than [self-esteem](#), which is the purely evaluative element of the self-concept.

The importance of self concept stems from its notable contribution to personality formation. Self esteem has to do with social competence, since it influences how the person feels, how he or she thinks, learns, values himself or herself, relates to other and ultimately how he or she behaves (Clark, Clemes and Bean, 2000; Clemes and Bean, 1996).

### Some basic assumption regarding Self concept

Many of the successes and failures that people experience in many areas of life are closely related to the ways that they have learned to view themselves and their relationships with others. It is also becoming clear that self-concept has at least three major qualities of interest to counselors: (1) it is learned, (2) it is organized, and (3) it is dynamic.

Some of the sub dimensions of self concept are:

**Self confidence:** It refers to the belief in one's personal worth and likelihood of succeeding. It is the combination of self esteem and general self efficacy.

**Physical self concept:** - It refers to the belief of the individual about his own physique and physical ability and what others think about the same. The six components of physical self concept are endurance, balance, flexibility, strength, appearance, and general physical ability.

**Intellectual and school status:**-It refers one's belief about the worthiness of his intellectual ability and where does actually he stands in his school i.e. his status in the school group.

**Anxiety and Emotion:** - It refers to the individual's self concept about the incidents of which he or she feels anxious and emotional.

**Happiness and Satisfaction:** - It refers to the individuals self concept about the incidents of which he or she feels happy and satisfied.

**Social self concept and Popularity:** - It refers to the individuals belief about how much popular or socially desirable.

**Self Worthiness:** - It refers to the individual feeling how worthy he or she is to others.

**Job Related Self-Concept:**- It refers to the individual's idea about his or her satisfactory job and environment.

**Belief and Conviction:** - It refers to the individuals self concept about his belief and conviction

### Some of the available Self-Concept scales are

- Self-Concept Scale Secondary Level
- Tennessee Self-Concept Scale
- Adjective Check List (ACL)
- Q. Sort
- Piers-Harris Children Self Concept Scale (The Way I Feel)

About Myself)

**Rational for construction of self concept inventory:**

Since most of the tools available for measurement of self concept were mainly on the formal school students' self concept and many of them are made exclusively for young learners, need was felt to develop a self concept inventory suitable for adult learners in both distance and formal mode to find what the students think about themselves in different dimensions of self concept.

**Construction of self concept scale:**

**A likert type self concept scale has been developed with the help of the following stages:**

**Selection of items:**

For this research purpose self concept specifically means what people think about themselves through experiences, attention and feedback from others specially in relation to self confidence, intellectual and school status, physical conditions, anxiety and emotion, happiness and satisfaction, social popularity, self worthiness, job environment, belief and convictions. Several self concept scales developed by Indian author were scanned before the framing of 92 initial items for the scale. This was then given to three experts for their rating as very good item, good item, not so good item, bad item and very bad item.

From the ratings only those items were selected that were rated as very good and good item by at least two experts. On the basis of expert rating 70 items were selected for try - out purpose.

**Validity:**

Validity refers the extent to which a tool measures for which it is intended to measure.

Face validity was ensured through careful collection of items for the self concept scale.

The content validity of the test was determined from the Judgment of 3 experts. Inter rater agreement as the basis for content validity was also calculated and found to be 0.74 which is significant.

**TABLE 1: Correlation of Inter rater agreement to prove content validity.**

|          |          |           |
|----------|----------|-----------|
|          | Rater II | Rater III |
| Rater I  | 0.71     | 0.77      |
| Rater II |          | 0.74      |

The average co-efficient of content validity is 0.74 which definitely proves significant validity of the items.

**Try out:**

The self concept scale was then administered to 400 students with varying background comprising 200 students from distance mode and 200 from formal mode of instruction attending various schools and study centers situated in different parts of Kolkata. After getting responses they were scored for each individual separately and the reliability was calculated.

**Reliability:**

Reliability of a tool may be defined as the extent to which a tool is consistent in measuring whatever it does measures. As the items are sub-divided into different sub di-

mensions so the reliability and validity of each dimension was found out.

Cronbach alpha method was employed to determine the stability and internal consistency of the self concept inventory and reliability was found to be 0.792. The detail of statistics to establish the reliability of the test is as below:

**Table2: Reliability co-efficient of self concept inventory**

|                |     |              |                         |
|----------------|-----|--------------|-------------------------|
| Method         | N   | Inventory    | Reliability Coefficient |
| Cronbach alpha | 400 | Self Concept | 0.792                   |

**Table3: Table showing Item Statistics**

|                                       |        |                |     |
|---------------------------------------|--------|----------------|-----|
|                                       | Mean   | Std. Deviation | N   |
| SCI 1(Self confidence)                | 30.57  | 5.002          | 400 |
| SCI 2(Intellectual and School status) | 26.04  | 3.971          | 400 |
| SCI 3(Physical Self Concept)          | 33.25  | 5.704          | 400 |
| SCI 4(Anxiety and Emotion)            | 22.90  | 6.164          | 400 |
| SCI 5(Happiness and Satisfaction)     | 23.34  | 4.385          | 400 |
| SCI 6(Social Self Concept)            | 32.17  | 5.924          | 400 |
| SCI 7(Self Worthiness)                | 25.27  | 4.065          | 400 |
| SCI 8(Job related Self concept)       | 23.84  | 4.520          | 400 |
| SCI 9(Belief and Conviction)          | 20.51  | 3.415          | 400 |
| Total Self Concept                    | 237.69 | 24.158         | 400 |

Table 5: Table showing Summary Item Statistics

|                |        |         |         |         |                   |          |            |
|----------------|--------|---------|---------|---------|-------------------|----------|------------|
|                | Mean   | Minimum | Maximum | Range   | Maximum / Minimum | Variance | N of Items |
| Item Means     | 47.559 | 20.510  | 237.692 | 217.182 | 11.589            | 4.481E3  | 10         |
| Item Variances | 79.785 | 11.664  | 583.602 | 571.938 | 50.034            | 3.142E4  | 10         |

**Table showing Item-Total Statistics**

|                                      | Scale Mean if Item Deleted | Scale Variance if Item Deleted | Corrected Item-Total Correlation | Squared Multiple Correlation | Cronbach's Alpha if Item Deleted |
|--------------------------------------|----------------------------|--------------------------------|----------------------------------|------------------------------|----------------------------------|
| SCI 1(Self confidence)               | 445.02                     | 1978.035                       | .548                             | .606                         | .685                             |
| SCI2(Intellectual and School status) | 449.55                     | 2057.376                       | .482                             | .05                          | .697                             |
| SCI 3(Physical Self Concept)         | 442.34                     | 1951.908                       | .521                             | .677                         | .684                             |
| SCI 4(Anxiety and Emotion)           | 452.69                     | 2110.139                       | .174                             | .687                         | .20                              |
| SCI5(Happiness and Satisfaction)     | 452.24                     | 2073.422                       | .386                             | .529                         | .703                             |
| SCI 6(Social Self Concept)           | 443.42                     | 1902.941                       | .597                             | .678                         | .674                             |
| SCI 7(Self Worthiness)               | 450.32                     | 1997.185                       | .642                             | .583                         | .685                             |
| SCI 8(Job related Self concept)      | 451.74                     | 2008.733                       | .537                             | .554                         | .690                             |
| SCI 9(Belief and Conviction)         | 455.08                     | 2142.077                       | .294                             | .451                         | .712                             |
| Total Self Concept                   | 237.89                     | 550.270                        | .982                             | .965                         | .687                             |

3.5: Table showing ANOVA

|              |          | Sum of Squares | df   | Mean Square | F       | Sig. |
|--------------|----------|----------------|------|-------------|---------|------|
| Between      | People   | 89646.494      | 399  | 224.678     |         |      |
| Within       | Between  | 1.613E7        | 9    | 1792419.565 | 2.814E4 | .000 |
|              | Residual | 228695.614     | 3591 | 63.686      |         |      |
|              | Total    | 1.636E7        | 3600 | 4544.575    |         |      |
| Total        |          | 1.645E7        | 3999 | 4113.558    |         |      |
| Grand Mean = |          | 47.56          |      |             |         |      |

Inter dimension correlation was also calculated using Pearson correlation method. All the dimensions were found to be significantly correlated with each other and all dimensions have significant correlation with the total self concept score at 0.01 level.

**Table 4: Table showing Inter dimension Correlation Matrix of Self Concept Inventory using Pearson's method**

|       | SCI 2 | SCI 3 | SCI 4 | SCI 5 | SCI 6 | SCI 7 | SCI 8  | SCI 9  | TOTAL  |
|-------|-------|-------|-------|-------|-------|-------|--------|--------|--------|
| SCI 1 | .268* | .374  | .046  | .207* | .346* | .351* | .240*  | .195** | .610** |
| SCI 2 |       | .224  | .070  | .133* | .371* | .341* | .273** | .195** | .536** |
| SCI 3 |       |       | 1     | -.036 | .288* | .287* | .347*  | .251*  | .601** |
| SCI 4 |       |       |       | 1     | -.068 | .102* | .110*  | .064   | .301** |
| SCI 5 |       |       |       |       | 1     | .189* | .285*  | .185** | .457** |
| SCI 6 |       |       |       |       |       | 1     | .418*  | .369*  | .663** |
| SCI 7 |       |       |       |       |       |       | 1      | .395*  | .270** |
| SCI 8 |       |       |       |       |       |       |        | 1      | .323** |
| SCI 9 |       |       |       |       |       |       |        |        | 1      |

Where

- SCI 1 = Self confidence
- SCI 2 = Intellectual and School status
- SCI 3 = Physical Self Concept
- SCI 4 = Anxiety and Emotion
- SCI 5 = Happiness and Satisfaction
- SCI 6 = Social Self Concept
- SCI 7 = Self Worthiness
- SCI 8 = Job related Self concept
- SCI 9 = Belief and Conviction

**The final form of the scale:**

The final form of the self concept inventory comprised of 70 items of which 17 items are negative and rest are positive items of Likert type on five point rating scale. Each item was provided with alternative responses such as Strongly Agree (SA), Agree (A), Undecided (U), Disagree (D) and Strongly Disagree (SD). It is a self administering tool without any time limit. The scoring was done on the basis of the five point scale. For positive item a weightage of 5,4,3,2,1 and for negative items a weightage of 1,2,3,4,5 are to be given to response SA,A,U,D,SD respectively. The summated score for all the 70 items provides the total self concept score of an individual. The maximum possible score on the whole scale could be 350 and minimum score can be 70. A high score indicates high self concept and the low score indicates lower self concept. Dimension wise distribution of items is given below

| SL.No | Dimensions of self concept inventory | SL.No. of statement on the scale | Total no of items |
|-------|--------------------------------------|----------------------------------|-------------------|
| 1     | Self Confidence                      | 1, 5, 6, 8, 9, 11, 12, 13, 14    | 9                 |
| 2     | Intellectual and Social Status       | 7, 15, 16, 17, 18, 19, 20        | 7                 |

|       |                                    |  |    |
|-------|------------------------------------|--|----|
| 3     | Physical Self Concept              | 21, 22, 23, 24, 25, 26, 27, 28, 29, 30 | 10 |
| 4     | Anxiety and Emotion                | 31, 32, 33, 34, 35, 36, 37, 38         | 8  |
| 5     | Happiness and Satisfaction         | 10, 39, 40, 41, 42, 43, 53             | 7  |
| 6     | Social Self Concept and Popularity | 44, 46, 47, 48, 49, 50, 51, 52, 54     | 9  |
| 7     | Self Worthiness                    | 4, 55, 56, 57, 58, 59, 60              | 7  |
| 8     | Job Related Self Concept           | 2, 3, 45, 61, 62, 63, 64               | 7  |
| 9     | Belief and Convictions             | 65, 66, 67, 68, 69, 70                 | 6  |
| Total |                                    |  | 70 |

**Administration of the Self Concept Scale and Scorings:**  
 The self concept inventory is a self administering tool. The scale is mainly used for adults who are pursuing any course or study through traditional or open system. There is no time limit. Normally an adult learner takes 30 minutes to complete all the items.

The following specific instruction was given to the respondents. "Here are some statements related to your academic and other aspects. Each statement is associated with five possibilities of responses, viz., Strongly Agree (SA), Agree (A), Undecided (U), Disagree (D) and Strongly Disagree (SD). Strongly Agree (SA), Agree (A), Undecided (U), Disagree (D) and Strongly Disagree (SD). Please go through each statement carefully and give your response by ticking on any one of the five responses given."

**Table 5: Dimension wise distribution of items of self concept scale**

|                          | DIMENSIONS                         |        |     |     |     |     |     |     |     |     |     |     |          | RANGE OF SCORES |
|--------------------------|------------------------------------|--------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|----------|-----------------|
| 1                        | SELF CONFIDENCE                    | ITEM   | 1+  | 5+  | 6+  | 8+  | 9-  | 11+ | 12+ | 13+ | 14+ |     |          | 9 – 45          |
|                          |                                    | SCORES |     |     |     |     |     |     |     |     |     |     |          |                 |
| 2                        | INTELLECTUAL AND SCHOOL STATUS     | ITEM   | 7-  | 15+ | 16+ | 17+ | 18- | 19+ | 20+ |     |     |     |          | 7 – 35          |
|                          |                                    | SCORES |     |     |     |     |     |     |     |     |     |     |          |                 |
| 3                        | PHYSICAL SELF CONCEPT              | ITEM   | 21+ | 22+ | 23+ | 24+ | 25+ | 26+ | 27- | 28+ | 29+ | 30+ |          | 10 – 50         |
|                          |                                    | SCORES |     |     |     |     |     |     |     |     |     |     |          |                 |
| 4                        | ANXIETY AND EMOTION                | ITEM   | 31- | 32- | 33- | 34- | 35- | 36+ | 37- | 38- |     |     |          | 8 – 40          |
|                          |                                    | SCORES |     |     |     |     |     |     |     |     |     |     |          |                 |
| 5                        | HAPPINESS AND SATISFACTION         | ITEM   | 10+ | 39+ | 40+ | 41+ | 42+ | 43+ | 53+ |     |     |     |          | 7 – 35          |
|                          |                                    | SCORES |     |     |     |     |     |     |     |     |     |     |          |                 |
| 6                        | SOCIAL SELF CONCEPT AND POPULARITY | ITEM   | 44+ | 46+ | 47+ | 48+ | 49- | 50- | 51- | 52+ | 54+ |     |          | 9 – 45          |
|                          |                                    | SCORES |     |     |     |     |     |     |     |     |     |     |          |                 |
| 7                        | SELF WORTHINESS                    | ITEM   | 4+  | 55+ | 56+ | 57- | 58+ | 59+ | 60+ |     |     |     |          | 7 – 35          |
|                          |                                    | SCORES |     |     |     |     |     |     |     |     |     |     |          |                 |
| 8                        | JOB RELATED SELF CONCEPT           | ITEM   | 2-  | 3-  | 45+ | 61+ | 62+ | 63+ | 64+ |     |     |     |          | 7 – 35          |
|                          |                                    | SCORES |     |     |     |     |     |     |     |     |     |     |          |                 |
| 9                        | BELIEF AND CONVICTION              | ITEM   | 65+ | 66+ | 67+ | 68+ | 69+ | 70+ |     |     |     |     |          | 6 - 30          |
|                          |                                    | SCORES |     |     |     |     |     |     |     |     |     |     |          |                 |
| Total Self Concept Score |                                    |        |     |     |     |     |     |     |     |     |     |     | 70 - 350 |                 |

The scoring will be done according to the scoring key

**Table 5.1: Scoring Key for Self Concept Inventory**

(+) SHOWS POSITIVE ITEMS      SCORES FOR POSITIVE ITEMS: 5, 4,3,2,1

(-) SHOWS NEGATIVE ITEMS      SCORES FOR POSITIVE ITEMS: 1, 2,3,4,5

## REFERENCE

- 1) Barry, C. T. (1991), "The relationship among domains of Self- Concept and Academic Achievement in learning-disabled children", Dissertation abstract International, 52(3), 842-A. | 2) Cazenave, Anita Washington. (1993), The effect of self concept, school atmosphere, motivation, locus of control and attendance on African American Adolescents' reading achievement, Dissertation Abstract International, 54(2), 470 | 3) Chistain, Z.M. (1992), The impact of completion of basic algebra course on college students' global self concept and academic self concept. Dissertation Abstract International. 53(8), 2686 | 4) Chisthty, S.B.H. (1992), Achievement Motivation, Self Concept, Personal Preferences, Student's Morale and other Ecological correlates in relation to Intelligence, Socio economic Status and Performance of Higher Secondary Tribal Students of Rajasthan, Indian Education Review, 27(4). | 5) Einer, M. Skaalvik. (2009), Self concept and self efficacy in mathematics. Journal of Educational Research ISSN: 1932-052X Volume 3, Issue 3. | 6) Gerald, Steven. (1990), Academic self concept as a predictor of academic success among minority and low socio economic status students, Psychological Abstract, 78(2), 587. | 7) Giglotti Card Chafel. (1995), The relationship between self concept of academic ability and academic performance of adult students, Dissertation Abstracts International, 55(7), 1791. | 8) Goswami, Promod Kumar. (1978), A study of self concept of adolescents and its relationship to scholastic achievement and adjustment. In Buch M. B., Third Survey of Research in Education (1986), New Delhi, NCERT. | 9) Hangal Suneetha and A Vijayalaxmi. Aminabhavi; Self Concept, Emotional maturity and Achievement Motivation of Adolescent Children of Employed Mothers and Homemakers. (Journal of the Indian Academy of Applied Psychology, January 2007, Vol. 33, No.1, p 103-110). Hay I, Ashman AF, Van Kraayenoord CE (1998) Educational Characteristics of Students with High or Low Self-Concept. Psychol in the Schools, 35(4), p391-400. | 10) Hirnval, A. (1980), A study of pupils' self concept, academic motivation, classroom climate and academic performance. In Buch M. B., Third Survey of Research in Education (1986), New Delhi, NCERT. | 11) House, J. Danel. (1992), The relationship between academic self concept, achievement related expectancies and college attribution, Psychological Abstracts, 79(8), 3497. | 12) Hussain Akbar; Self Concept of Physically Challenged Adolescents. (Journal of the Indian Academy of Applied Psychology, January 2006, Vol. 32, No.1, 43-46, p 43-46). | 13) Marsh, Herbert W. (1993), Content Specificity of Relationship between Academic Achievement and Academic Self Concept, Psychological Abstracts, 79(8), 3025. Also in Journal of Educational Psychology, 84(1), 35-42. | 14) Nasir rohani, Zamani Zainah ahmed, (2011), Family Functioning, Self Esteem, Self Concept and cognitive distortion among juvenile Delinquents, Journal of Social Sciences, volume 6, issue 2, p 155-163. | 15) Pathni, R.S. (1985), Psychosocial developmental stage , self evaluation (self concept) and need (self analyzing) as predictors of academic achievement. In Buch, M.B., Forth Survey of Research in Education (1991), New Delhi, NCERT. | 16) Pujar, L. and Gaonkar, V. (2000), "Influencing of age and type of family on Self-concept of high and low achieving adolescents". Indian Psychological Review Vol.54 (152), pp. 24-26. | 17) Radha Rani. (1983), Self concept and adjustment as factors in academic achievement, Indian Education Review, 18(2), p46-59. | 18) Rani, B. (1980), Self concept and other noncognitive factors affecting the academic achievement of the scheduled caste students in institutions of higher technical education. In Buch, M.B., Third Survey in Research in Education(1986), New Delhi: NCERT. | 19) Robert C. Kanoy, Beth W. Johnson, Korrel W. Kanoy (2006), Locus of control and self concept in achieving and underachieving bright elementary students. Psychology in the schools. Vol- 17, issue 3, p395-399. | 20) Saraswat, R.K. (1982), A study of self concept in relation to adjustment , values, academic achievement, socio economic status, and sex of high school students of Delhi. In Buch, M.B., Forth Survey of Research in Education (1991), New Delhi, NCERT. | 21) Shavelson, R.J., Hubner, J.J. (1976), Self concept: validation of construct interpretations, Review of Educational Research, 46(3), p 407-441. | 22) Singh, A.D. (1983), A comparative study of high and low achievers in self concept formation. In Buch, M.B., Forth Survey of Research in Education (1991), New Delhi, NCERT. | 23) Sylves, Ann Frances. (1993), Experimental exploration of causal direction between self concept and achievement. Dissertation Abstract International, 54(2), 468. | 24) Surindar kumar Sharma. (2011), A comparative study of self concept and self esteem of blind students studying in integrated and special school setting. Unpublished research work, Jamia Milia Islamia University. | 25) Vasanth Ramkumar. (1969), Self concept and achievement in school subjects of prospective university entrants. In Buch, M.B., A survey of Research in Education(1974), Baroda: CASE, M.S. University of Baroda. | 26) Whlwhite, Stephen C. (1992), Self concept in academic ability, aptitude and study activities as predictors of college course achievement. Research in Education, 28(20) 157.