

Received : 20 May 2024, Accepted: 15 June 2024

DOI: <https://doi.org/10.33282/rr.vx9i2.08>

## Self-Confidence Scale Development for Youth

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### ABSTRACT

The aim of this study was to validate and develop the Self- confidence scale for youth. In current study through systematic random sampling technique accessed (N=200) participants and used cross-sectional survey research design in this study for 2<sup>nd</sup> try out. Scale was developed by the authors through committee approach questions were approved by expert panel. Descriptive statistics, exploratory analysis, alpha reliability, test re test and split half reliability, discrimination validity, construct validity, convergent validity was utilizes for the data analysis. This was assumed to develop the valid and reliable self-confidence scale for target population. The findings of the study proved true all study hypothesis. Communalities of all factors in principal factor analysis was ( $\lambda > 0.5$ ),  $p < .001$  and evidence shows all items selected for the final draft. Alpha reliability ( $\alpha = .749$ ), test retest reliability ( $\alpha = .767$ ). Total inter items and inter correlation coefficient of self-confidence was high. Discriminant validity of self-confidence scale with self-esteem scale was also high. It is the self-confidence scale development for youth which is valid and reliable. This study scope able for researchers, educators, clinical psychologist will use self-confidence scale for the assessment of the individual.

**Keywords:** *Self-confidence, scale development, validity, reliability.*

## INTRODUCTION

Confidence and self-confidence are often considered synonymous, a concept widely discussed in psychology since the late 20th century. Bandura (1978) introduced the notion of self-confidence defining it as an individual's belief in their ability to successfully perform specific tasks. Self-confidence, a component of one's character, involves having faith in one's own abilities, being unaffected by external influences, and acting according to one's desires. It is associated with happiness, optimism, tolerance, and responsibility (Cook et al., 2015; Gürler, 2015). Self-confidence entails the belief in one's ability to achieve desired outcomes, characterized by a lack of anxiety, freedom to act according to one's desires and responsibilities, politeness in interpersonal interactions, a motivation for achievement, and an awareness of one's strengths and weaknesses (Federičová et al., 2018; Oney & Oksuzoglu-Guven, 2015; Pettersson, 2018).

Developing a self-assured mindset involves acquiring skills to effectively respond to external stimuli through interaction with one's environment (Lawal et al., 2017). Self-confidence is not innate but is acquired through life experiences and can be cultivated through education. Efforts to build and enhance self-confidence are supported by research (Schneider et al., 2018). One sign of lacking self-assurance is reliance on others' evaluations. Confident individuals are characterized by independence, selflessness, tolerance, ambition, optimism, assertiveness, and moderation (Unver et al., 2017). Conversely, a lack of confidence often stems from insufficient self-education and a passive attitude toward external influences. Confidence is advantageous in all situations, indicating an individual's accountability for their tasks (Nadiyah, 2019). As individuals lose confidence in themselves, they increasingly rely on others, using inherent social capacities and problem-solving techniques to navigate challenges (Harding, 2017).

Self-confidence can be categorized into self-efficacy and perceived efficacy (Bandura, 1978). Regardless of perspective, self-esteem encompasses numerous facets, such as self-satisfaction and self-esteem, or "Start," "Don't Give Up," and "Persistence" (Yıldırım & İlhan, 2010). Yıldırım and İlhan (2010) further delineate self-confidence into internal and external categories. Internal self-confidence includes self-love, communication skills, self-knowledge, and self-expression, while external self-confidence encompasses setting clear goals, self-assertion, positive thinking, and emotional control. Past experiences influencing self-efficacy include observed experiences of others, persuasion, and affective experiences (Cassidy & Eachus, 2002). Employees often categorize their self-assurance into internal and external aspects. Self-confidence involves contentment and trust in oneself and others (Özbey, 2004).

Research shows that adolescent self-confidence is evident in their self-acceptance (Fitri et al., 2018; Hariko & Ifdil, 2017). Adolescents with high self-confidence tend to feel secure, avoid disillusionment, possess self-awareness, and exhibit independence (Macher et al., 2013). However, some individuals experience fluctuating self-confidence due to personal turmoil or other factors (Campos et al., 2015). Various scales exist for assessing students' self-confidence levels (Garant et al., 1995; Stankov et al., 2015). Garant et al. (1995) developed and validated an 18-item self-confidence scale with a reliability coefficient of .84. Akın (2007) developed a self-confidence scale consisting of external and internal self-confidence categories with 33 items, showing high internal and external reliability coefficients. Yıldırım and İlhan (2010) also created a self-validity scale, a Likert-type scale with three sub-categories and 17 items. There is

a notable lack of scales tailored to specific cultural contexts, such as Pakistan, which presents a research gap. Efforts to develop culturally appropriate self-confidence scales are essential (Andrich & Pedler, 2019).

The development of a Self-Confidence Scale (SCS) involves rigorous methods to ensure reliability and validity. Reliability assesses consistency across repeated measures (Porta, 2008), often evaluated using Cronbach's alpha (Cronbach, 1951). Exploratory factor analysis (EFA) is used to test the construct validity of a scale during initial development stages, examining the underlying dimensionality of item sets (Worthington & Whittaker, 2006). The Likert scale is widely used in educational and social research for its ability to capture degrees of opinion, reducing social desirability bias (Joinson, 1999).

Numerous scales have been developed to measure self-confidence, such as those by Akın (2007), Yıldırım and İlhan (2010), Grundy (1993), and Shrauger and Schohn (1997). In Pakistan, there is a need for a self-confidence scale adapted to the cultural context, leading to the initiation of this study to build a scale for Pakistani youth.

## **METHOD**

### **Objectives**

The study has the following objectives;

1. To develop the self-confidence scale
2. To assess the reliability of self-confidence scale.
3. To evaluate the validity of self-confidence scale.

### **Hypotheses**

**H1:** Self-confidence scale development for youth.

**H2:** To develop a valid and reliable scale for target population.

### **Research method**

The study was based on a Survey method.

### **Research design**

In this study Cross-sectional survey research design was used to collect data from general population.

### **Sampling techniques**

Systematic random sampling technique was used for the purpose of the study.

### **Sampling size**

For the present study, the sample was consist of participants (300). Experimenter were randomly collected data from males and females. Date was collected from age 16 to 50 and from general population.

## Questions route

Authors first collected data from ten participants recruited five teachers and five students by utilizing semi structured interviews. Aftermath, authors analyzed collected data and generated questions for scale development process. These questions were on the base of content of semistructured interview screening, experts books and previous scales. Researchers presented to panel members for review. After reviewers review items were selected for further process of scale development.

### For first try out 100

In first tryout , researcher collected the data from (n=57) females and (n=43) males. Authors generated questions on the base of content of semistructured interview screening, experts, books and previous scales. Items were included and excluded from the pool of items on the base of these reliability and correlation coefficient. Final approval was taken from reviewers, Accord to reviewers opinion items were included and excluded from the pool of items.

### For final try out

For the second try out, researcher recruited (n=79) males and (n=121) females for data collection purpose. Authors strained consents from participants individually and before approaching youth authors obtained consent of concern authorities. Informed participants your participation as volunteer without any Monterey reward. There is no any abvious risk for participating in concern research and provided information will keep confidential. Statistical analysis was performed for validation and for accepting and rejecting the items for final draft.

## Procedure

After getting approval to supervisor and internal departmental research committee, Unstructured interviews were taken from ten ynugesters. Unstructured interviews qualitative analysis helped authors in generating the items for Self Confidence scale. 25 items were prepared by authors with the help of precious scales, books, previous researches and unstructured interviews qualitative analysis. These items were final after getting approval from reviewers panel. This panel or committee was compromised on five members. Opinion about all items was taken from the five panel members. In first tryout (N=100) participants were recruited through using probability simple random sampling technique. Institutional Inform consent and participants Inform consents were prepared for getting permission from institutions and participants individually. Inform consent and demographic questions was also provide to the youth who are willing to participate in the research. Statistical analysis was performed for items analysis and reviewers were obtained from reviewers for selection the Self Confidence scale (SCS) for final draft.

## Test Development and Planning

Before the development process, blue print was prepared by the authors. Then conducted unstructured interviews on youngsters. Then on the base of interview, screening the developed items for concern scale. The source of the screening are unstructured interviews, experts, books, previous researches and scales for getting ideas for items generation. Scale development process was compromised on three phases initial unstructured interviews stage and there were two tryouts. In first phase conducted unstructured interviews for qualitative analysis for getting genuine source of content for self confidence

scale Development. In first tryout items were excluded and included for advance study. In first tryout after data collection items analysis was performed with the help of SPSS software and excluded six items. Authors completed reviews reviews process for all items then final draft for 2nd tryout. Similarity, after completing data collection process, authors made items analysis with the help of SPSS software. Panel members reviews were obtained by authors, then final draft items were selected.

Self-confidence scale consist on one questionnaire which is 4-point Likert scale. Total score of this scale has 57 with responses ranging from 0 for never, 1 for rarely, 2 for sometimes and 3 for oftentimes. Levels for self-confidence determined as base on raw scores. Maximum time for attempting the scale was determined on 10 to 15 minutes.

## Results of 1st Draft

**Table 1**

*Psychometric Properties of Demographic Variables*

<b>Variables</b>	<b>N</b>	<b>%</b>
<b>Gender</b>		
Male	43	43.0%
Female	57	57.0%
<b>Region</b>		
Rural	41	41.0%
Urban	59	59.0%

*Note. N=participants, %= percentage*

Table 1 is indicating the psychometric properties of the demographic variables. Male and female participation statistical values are (n=43, 43.0%; n=57, 57.0%) respectively. Rural and urban participants numerical values are (n=41, 41.0%; n=59, 59.0%) respectively.

**Table 2**

*Factor Loadings and Communalities Based On a Principal Components Analysis with Self-Confidence Scale (SCS)*

<b>Self-confidence</b>	<b>Factor loading</b>
Item 1	.616
Item 2	.680
Item 3	.710

Item 4	.736
Item 5	.666
Item 6	.671
Item 7	.679
Item 8	.721
Item 9	.716
Item 10	.808
Item 11	.676
Item 12	.779
Item 13	.572
Item 14	.653
Item 15	.740
Item 16	.686
Item 17	.687
Item 18	.613
Item 19	.724

*Note. Principal component method for factor loading*

Table is showing the factor loading of the self-confidence scale. Selection criteria is ( $\lambda < 0.5$ ) just. All items selected on the base of factor loading values. There is not any value which is less than 0.5 and as well factor Kaiser-Meyer-Olkin measure is .573 which is acceptable range and Bartlett's Test is also significant ( $P < .000$ ).

**Table 3**

*Alpha Reliability of Self-Confidence Scale (SCS)*

No of items	<i>A</i>
19	.749

*Note.  $\alpha = \text{alpha}$ ,  $p < .001$*

Table 2 shows the Alpha reliability of the self-confidence scale for youth. All items of the self-confidence scale, the internal consistency are higher ( $\alpha = .749$ ) which shows that the scale is significant and reliable.

**Results of 2<sup>nd</sup> / Final Draft**

**Table 1**

*Psychometric Properties of Demographic Variables*

<b>Variables</b>	<b>N</b>	<b>%</b>
<b>Gender</b>		
Male	79	39.5%
Female	121	60.5%
<b>Region</b>		
Rural	82	41.0%
Urban	118	59.0%

*Note. N=participants, %= percentage*

Table 1 is indicating the psychometric properties of the demographic variables. Male and female participation statistical values are (n=79, 39.5%; n=121, 60.5%) respectively. Rural and urban participants numerical values are (n=82, 41.0%; n=118, 59.0%) respectively.

**Table 2**

*Factor Loadings and Communalities Based On a Principal Components Analysis with Self-Confidence Scale (SCS)*

<b>Self-Confidence</b>	<b>Factor loading</b>
Item 1	.690
Item 2	.876
Item 3	.893
Item 4	.235
Item 5	.929
Item 6	.889
Item 7	.921
Item 8	.940
Item 9	.983
Item 10	.921
Item 11	.930
Item 12	.983
Item 13	.981
Item 14	.980
Item 15	.943
Item 16	.890
Item 17	.852
Item 18	.857
Item 19	.764

*Note. Principal component method for factor loading*

Table is showing the factor loading of self-confidence scale. All items are selected on the base of factor loading values, these are not any value less than 0.5 except item 4.

**Table 3**

*Alpha Reliability of the Self-Confidence Scale (SCS)*

No of items	<i>A</i>
19	.767

Note.  $\alpha = \text{alpha}, p < .001$

Table 2 shows the Alpha reliability of the self-confidence scale for youth. All items of the self-confidence scale, the internal consistency are higher ( $\alpha = .767$ ) which shows that the scale is significant and reliable.

**Table 4**

*Alpha, Test Re Test and Split Half Reliability of Self-Confidence Scale (SCS)*

No of items	$\alpha$	Test re Test Reliability	Split Half Reliability
19	.749	.767	
Part A	10		.624
Part B	9		.599
Split half reliability	19		.71

Note;  $\alpha = \text{Alpha}, p < .001$

Table shows the test re test and split half reliability of Self-Confidence scale. All items of the self-confidence scale internal consistency are in significant range. The value of the split half reliability are .71 which shows signification internal consistency. Therefore this is a reliable scale for measuring the self confidence level of youth.

**Table 5**

*Percentiles for Self Confidence Scale (SCS)*

Scores	%
1	1.75
2	3.51
3	5.26
4	7.02
5	8.77
6	10.53
7	12.28
8	14.04
9	15.79



10	17.54
11	19.30
12	21.05
13	22.81
14	24.56
15	26.32
16	28.07
17	29.82
18	31.58
19	33.33
20	35.09
21	36.84
22	38.60
23	40.35
24	42.11
25	43.86
26	45.61
27	47.37
28	49.12
29	50.88
30	52.63
31	54.39
32	56.14
33	57.89
34	59.65
35	61.40
36	63.16
37	64.91
38	66.67
39	68.42
40	70.18
41	71.93
42	73.68
43	75.44
44	77.19
45	78.95
46	80.70
47	82.46
48	84.21
49	85.96
50	87.72

51	89.47
52	91.23
53	92.98
54	94.74
55	96.49
56	98.25
57	100.00

Note; %=percentage

This table shows the percentage values for each raw score for self confidence scale from 1 to 57 represents out of the total.

**Table 6**

*Levels of Self-Confidence Scale (SCS)*

<b>F</b>	<b>%</b>	<b>Levels</b>
Less than 11.4	20	No confidence
11.4 – 22.8	40	Mild
22.8 – 34.2	60	Moderate
34.2 – 45.6	80	High
45.6 – 57	100	Very high

Note; f=frequency, %=percentage

This table categorizes levels of confidence based on a percentage scale. It specifies five distinct confidence levels. 0-11.4% indicates a person's complete lack of confidence, 11.4%-22.8% suggests some degree of confidence, 22.8%-34.2% indicates a moderate level of confidence, and 45.6%-57% indicates an extremely high level of confidence.

**Validation of Self-Confidence Scale (SCS)**

**Table 7**

*Total Inter Item Correlation for Construct Validity of Self-confidence Scale*

<b>Self-confidence scale</b>	<b>r</b>
Item 1	.677
Item 2	.687
Item 3	.710
Item 4	.737
Item 5	.777
Item 6	.674
Item 7	.673
Item 8	.720

Item 9	.715
Item 10	.809
Item 11	.674
Item 12	.776
Item 13	.573
Item 14	.656
Item 15	.745
Item 16	.687
Item 17	.688
Item 18	.619
Item 19	.728

*Note. P<.001, r= Co Relation*

Table is showing the total inter items correlation for construct validity of the self-confidence scale development. All items have positive correlation within the items above average. There is not any value which is less than 0.5 which is acceptable range and association is also significant (P<.002). Construct validity shows high self-confidence scale (SCS).

**Table 8**

*Discriminant Validity of the Self-Confidence Scale (SCS)*

<b>Variables</b>	<b>N</b>	<b>M</b>	<b>S. D</b>	<b>1</b>	<b>2</b>
1. Self Confidence scale	200	66.97	34.706	-	
2. Self-esteem scale	68	22.03	3.909	-.035	-

*Note, N= participants, M= mean, S. D= standard deviation*

Table is showing the discriminant validity of self-confidence scale. Self-confidence is negatively correlate with self-esteem scale (r=-0.35, p< .01) so that self-confidence scale is reliable and valid.

**Table 9**

*Inter Items Correlation Coefficient for Convergent Validity of Self-confidence scale (SCS)*

Self-confidence	M	S. D	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	
Item 1	2.25	.719																				
Item 2	2.34	.688	.777**																			
Item 3	2.38	.779	.607**	.688*																		
Item 4	2.20	.654	.372**	.380*																		
Item 5	1.83	.809	.372**	.380*	.372*																	
Item 6	2.16	.944	.163	.236*	.316*	.088																
Item 7	1.72	.926	.360**	.291*	.178	.409*	.157															
Item 8	2.12	.799	.032	.122	.018	.410*	.234*	.204*														
Item 9	2.07	.773	.032	.122	.018	.410*	.234*	.204*	.032													
Item 10	1.89	1.058	.390**	.492*	.345*	.008	.379*	.082	.114	.014												
Item 11	1.96	1.009	.003	.025	.109	.041	.225*	.028	.022	.125	.147											
Item 12	2.12	.769	.197	.215*	.149	.167	.309*	.039	.023	.019	-	.196										
Item 13	1.82	.845	.569**	.459*	.193	.234*	.181	.364*	.037	.273*	.232*	.515*	.141	.190								
Item 14	1.84	.748	.283**	.256*	.036	.040	.356*	.181	.074	.020	.304*	.162	.454*	.453*								
Item 15	1.82	.881	.483**	.296*	.133	.177	.171	.549*	.056	.190	.448*	.235	.105	.560*	.257*							
Item 16	1.81	.692	.217*	.221*	.028	.029	.130	-.062	.148	.214*	.303*	.098	.008	.211*	.119	.293*						
Item 17	1.93	.624	.340**	.133	.226*	.376*	.035	.437*	.209	.373*	.139	.070	.092	.252*	.062	.467*	.010					
Item 18	1.96	.864	.357**	.365*	.328*	.135	.117	.192	.158	.241*	.348*	.080	.028	.355*	.244*	.344*	.124	.390*				
Item 19	1.80	.765	.294**	.160	.204*	.571*	.184	.319*	.141	.507*	.004	.038	.033	.159	.018	.256*	.083	.325*	.201			

*Note. M= mean, S. D= standard deviation, \*p<0.05, \*\*p<0.01 & \*\*\*p<0.001*

Table indicate the inter items correlation coefficient for Convergent Validity of Self-confidence scale. There among all these items \*p<0.05 & \*\*p<0.01 indicates that there is a significant association within all items which indicating the convergent validity of self-confidence scale.

## DISCUSSION

The aim of the current study was to develop the valid and reliable scale which measure the level of self-confidence for youth. First hypothesis was the self-confidence scale development for youth. The development of self-confidence tailored specifically for youth was motivated by the profound significance of self-confidence in youth development. This assumption proved to be true by the table no 2-7.

. Reliability was calculated on the data and then factor analysis was performed. A Kaiser-Meyer-Olkin (KMO) analysis was conducted to determine the validity. Bartlett's test was used to determine the factorability capacity. According to the results of this analysis, the scale was given the final shape (Büyüköztürk, 2012; Sönmez & Alacapınar, 2016). After all, these operations, factor analysis was done. For this, the first Kaiser Meyer-Olkin analysis was conducted to determine whether the sample size was sufficient. The criteria set for loading  $<0.5$ . All items selected on the base of factor loading values. There was not any values which was less than 0.5. At the end of this analysis, there was an association of .573 which was acceptable range. In the second step, it was determined whether the value of Bartlett's Test was also significant ( $p < .000$ ). Without these two analyzes, you cannot go to factor analysis (Büyüköztürk, 2012; Sönmez & Alacapınar, 2016). Self-confidence questionnaire proved that it is a valid scale.

The second hypothesis is to develop the valid and reliable scale for target population. This assumption proved true by the table no 2, 7, 8 and 9.

In term of validity, which refers to the degree to which an instrument is effective in measuring what it is supposed to measure. For the validity testing, the construct validity, convergent validity and discrimination validity were analyzed by SPSS. Construct validity measures the extent to which a test or instrument measures the theoretical construct it is intended to measure. This involves demonstrating that the test is related to other measures as theoretically expected and not related to those it should not be related to (Cronbach & Meehl, 1955). Therefore, the result of construct validity shows that there is a significant association among all items. For the discrimination validity test, self-esteem scale were used to discriminate with self-confidence scale which shows that self-confidence is negatively correlated with self-esteem scale. Whenever there are high construct intercorrelations, there is a need to assess discriminant validity, in order to have confidence in subsequent research findings (Farrell, 2010). Discriminant validity is assessed by comparing the shared variance (squared correlation) between each pair of constructs against the average of the AVEs for these two constructs (Bovee et al., 2009, Hassan et al., 2007; Walsh, Beatty and Shiu, 2009). Convergent validity measure the extent to which test scores or responses demonstrate a strong relationship with scores or responses on conceptually similar tests (Sireci and Sukin, 2013). The result shows that there is a significant association within all items. So the hypothesis have proven that the self-confidence scale is valid and reliable.

The reliability of an instrument refers to the stability of a measurement and consistency in measurement. In this study, Cronbach's Alpha was used to see the consistency of the items (Williams, 1984). In first draft of data collection, the alpha reliability of self-confidence scale were 7.49 which has good reliability while in second draft of data collection, the alpha reliability of the self-confidence scale were 7.67 which also shows the good reliability. The test re test and split half reliability were also analyze by SPSS. The split half method divides a scale into equivalent halves and correlate the both. Cronbach's alpha coefficient provides more evidence than the split half method because it is the average of all possible split half correlations for the scale (Dorfman & Hersen, 2013). Alpha and split half coefficients are designed for scales with items that have multiple possible answers. In addition, the Kuder-Richardson-20 is a special equation of the alpha coefficient that is suggested for scales that use a "yes or no" answer system (Dorfman & Hersen, 2013). Test-retest reliability (stability) requires administration of a scale on two (or more) times to the same examinee allows for an estimation of test retest 41 stability (Dorfman & Hersen, 2013).

The result reveal that the self-confidence scale is reliable.

## **IMPLICATION**

The implication of self-confidence scale development for youth are:

- 1) It provides a reliable tool for assessing self-confidence levels in youth, allowing for early identification of low self-confidence.
- 2) The current study highlights that this scale provide assistance for educators and counselors to develop specific strategies to address self-confidence issues in various domains, such as academics, sports, and social interactions.
- 3) This study would helpful to contributes research on the correlation between self-confidence and mental health outcomes in youth.
- 4) Researchers, educators, clinical psychologist would use self-confidence scale for the assessment of an individual self confidence.

## **RECOMMENDATIONS**

Following are the recommendations for self-confidence scale development

- 1) Based on the good reliability of this scale, other studies should also use this measure for testing its reliability and validity again and again.
- 2) The scale should be applied to different schools, teachers, and students.
- 3) Design different versions of the scale for different age groups to ensure the questions are developmentally appropriate.
- 4) Studies ensure that the scale is easy to administer and interpret, providing clear instructions and scoring guidelines.
- 5) Data should be collect on a large number of participants in future.
- 6) Moreover, if a parallel measuring instrument is prepared and applied, more valid and reliable results can be obtained than the measurements.

## CONCLUSION

The study aim was to develop the valid and reliable self-confidence scale for youth in Pakistan. This was the validated scale for accessing the Self Confidence among youth.

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