

Validation of the Schutte Self-Report Emotional Intelligence Test (SSEIT) on Nigerian Adolescents

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Abstract

A cross-sectional survey design was adopted to validate The Schutte Self-report Emotions Intelligence Test (SSEIT) using Nigerian secondary school adolescents. A multistage sampling technique was used to purposively select the 200 (*mean age* 16.00± 2.01) participants made up of 118 males and 82 females from four selected secondary schools in Odeda Local Government Areas of Ogun state Southwestern Nigeria. Participants responded to Schutte Self-report Emotional Intelligence Test (SSEIT) and Trait Emotional intelligence Questionnaire Short-Form) (TEIQue-SF). Observed internal consistency of SSEIT showed a Cronbach's alpha coefficient of .90, a Spearman-Brown coefficient of .91 and Guttman Split-Half coefficient of .91. All items in the scale reported acceptable goodness-of-fit measures revealing corrected item-total correlations range of .60 to .83. Significant positive correlation was also observed between SSEIT and TEIQue-SF revealing concurrent validity score of ($r = .656, p = .000$). Determined new norms for SSEIT were scores ≥ 44.9 for male and ≥ 43.9 for female. SSEIT is gender sensitive and has acceptable psychometric properties for Nigerian population.

Keywords: Validation, emotional intelligence test, Nigerian Adolescents

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1. Introduction

The first use of the term “emotional intelligence” was by Salovey and Mayer (1990) who described emotional intelligence (EQ) as consisting of three categories of adaptive abilities (appraisal and expression of emotion, regulation of emotion and utilization of emotions in solving problems). Cooper and Sawaf (1997) further defined a model of EQ into four bases: emotional literacy (knowledge of one's own emotions and how they function), emotional fitness (emotional hardiness and flexibility) emotional depth (emotional intensity and potential for growth and emotional alchemy (including the ability to use emotion to spark creativity).

Bar-On (2000) defines EQ as ability to effectively understanding oneself and others, relating well to people, and adapting to and coping with the immediate surroundings to be more successful in dealing with environmental demands. Emotional intelligence (EQ) has been described as the ability to identify, use, understand, and manage emotions in positive ways to relieve stress, communicate effectively, empathize with others, overcome challenges, and defuse conflict (Segal & Smith, 2013; Colman, 2008 & Cherry, 2018). Emotional intelligence impacts many different aspects of daily life, such as the way one behaves and interacts with others. An emotionally intelligent individual has is able to recognize his own emotional state and the emotional states of others, and engage with people in a way that draws them to him. Such individual can use this understanding of emotions to relate better to other people, form healthier relationships, achieve greater success at work, and lead a more fulfilling life (Segal & Smith, 2013). Emotional intelligence refers to the capacity for recognizing one's own feelings and those of others, for motivating ourselves and for managing emotions well in ourselves and our relationships (Colman, 2008 & Cherry, 2018). Unlike Intelligence Quotient (IQ) which changes little after adolescent years, emotional intelligence (EQ) is largely learnt, is not fixed genetically or develops in early childhood but continues to develop and is predominantly environmentally determined

Assessing the construct of emotional intelligence has been carried out by many authors especially in western clime including the 133 item Bar-On Emotional Quotient Inventory by Bar-On, (1996) the 93-item Style in the Perception of Affect scale by Bernet, (1996) and 250 items EQ MAP test by Cooper and Sawaf, (1997). There is however no EQ scale developed among Nigerian researchers. Judging from the foregoing and considering the diversity in the socio-cultural setting this study therefore uses a Nigerian sample to validate the SSEIT to determine its validity and reliability coefficients on Nigerian population.

1.1. Objectives

The aim of this study is to validate the **Schutte Self-Report Emotional Intelligence Test (SSEIT)** developed by

Schuttle, Marlouf, Hall, Harggerty, Cooper, Golden and Dohheim (1998) using a Nigerian sample in order to obtain socio-culturally sensitive acceptable psychometric properties (new norms, reliability and validity coefficients).

2. Methods

2.1. Participants

A total of 200 participants were purposively selected and took part in the study; they were made up of 118 (59.0%) males and 82 (41.0%) females. The mean \pm SD age of the participants was 16.00 ± 2.01 . A total of 90 (45%) of the participants were in the junior secondary schools, while 110 (55%) were selected from the senior secondary schools.

2.2. Measurement

Two scales were used in this study. First is The Schutte Self-Report Emotional Intelligence Test (SSEIT) developed by Schuttle et.al., (1998) to assesses emotional intelligence based on self-report responses to items. The scale has a 33 items measured on a five-point scale ranging from 1-strongly disagrees to 5-strongly agree. **The SSEIT measures general EQ with four factors which are** emotion perception, utilizing emotions, managing self-relevant emotions, and managing others' emotions (Schutte et al. 1998). The scores of each of these factors are graded and then added together to find the total score for an individual's general EQ score.

The second instrument is the Trait Emotional Intelligence Questionnaire (**TEIQue-Short Form**). This is a 30-item questionnaire developed by Petrides (2009) to measure global trait emotional intelligence (Trait EI) based on the full form of the TEIQue.

2.3. Existing Psychometric Properties of SSEIT

The SSEIT has demonstrated high internal consistency with Cronbach's ranging from .87 to .90, and a two-week test retest reliability coefficient of 0.78 (Schuttle et al, 1998). The instrument has been successfully used by various some Nigerian researchers who made use of the original psychometric properties by the developer (Salami, 2005; Adeyemo & Ogunyemi, 2005). This necessitate the need for a re-validations of the scale for Nigerian population considering the fact that the psychometric properties provided by the developer was derived more than 20 years ago, and considering the changing nature of human behavior.

2.4 Statistical Analysis

Descriptive statistics including mean and standard deviation were used to determine the new norms for the instrument.

To determine the internal consistency / reliability of SSEIT, Cronbach's standardized α , Spearman-Brown coefficient and Guttman Split-Half coefficient was calculated and obtained.

Using Pearson's Correlation Analysis, SSEIT was correlated with Trait Emotional Intelligence Questionnaire Short Form (TEIQue-SF) in order to determine the concurrent validity of SSEIT.

The items total correlations were also obtained to test the relationship between each item and the composite / total item score.

3. Results

3.1 Measure of Reliability of Schutte Self-Report Emotional Intelligence Test

In other to determine the reliability and verify the internal consistency of the items on Nigerian population, Cronbach's alpha (or alpha coefficient), Spearman-Brown coefficient and Guttman Split-Half coefficient were used. As summarized in Table 1, the internal consistency, measured by Cronbach's coefficient was ($\alpha = .90$), with a Spearman-Brown coefficient of .91 and Guttman Split-Half coefficient of .91. The corrected item total correlations ranged from .60 to .83. The result of this analysis shows that SSEIT is reliable for the Nigerian population. All items in the scale resulted in acceptable goodness-of-fit measures.

Table 1: Correlation Coefficients Items of SSEIT

Item-Total Statistics					
S/N	Items	Item Mean	SD	Corrected Item-Total Correlation	Cronbach's Alpha if Item Deleted
1	I know when to speak about my personal problems to others.	2.68	1.74	.724	.90
2	When I am faced with obstacles, I remember times I faced similar obstacles and overcame them.	3.14	1.54	.833	.90
3	I expect that I will do well on most things I try.	3.11	1.48	.798	.90
4	Other people find it easy to confide in me.	3.18	1.47	.757	.90
5	I find it hard to understand the nonverbal messages of other people.	3.25	1.59	.601	.90
6	Some of the major events of my life have led me to re-evaluate what is important and not important.	3.27	1.54	.769	.90
7	When my mood changes, I see new possibilities.	3.10	1.49	.793	.90
8	Emotions are some of the things that make my life worth living.	3.06	1.53	.784	.90
9	I am aware of my emotions as I experience them.	2.99	1.62	.786	.90
10	I expect good things to happen.	3.00	1.63	.760	.90
11	I like to share my emotions with others.	2.85	1.64	.662	.90
12	When I experience a positive emotion, I know how to make it last.	3.13	1.54	.764	.90
13	I arrange events others enjoy.	3.10	1.47	.741	.90
14	I seek out activities that make me happy.	3.29	1.50	.749	.90
15	I am aware of the nonverbal messages I send to others.	3.26	1.56	.680	.90
16	I present myself in a way that makes a good impression on others.	3.42	1.57	.714	.90
17	When I am in a positive mood, solving problems is easy for me.	3.20	1.58	.725	.90
18	By looking at their facial expressions, I recognize the emotions people are experiencing.	3.03	1.55	.764	.90
19	I know why my emotions change.	3.16	1.47	.816	.90
20	When I am in a positive mood, I am able to come up with new ideas.	3.06	1.62	.715	.90
21	I have control over my emotions.	3.03	1.65	.666	.90
22	I easily recognize my emotions as I experience them.	3.14	1.58	.715	.90
23	I motivate myself by imagining a good outcome to tasks I take on.	3.22	1.50	.731	.90
24	I compliment others when they have done something well.	3.17	1.58	.711	.90
25	I am aware of the nonverbal messages other people send.	3.15	1.59	.650	.90
26	When another person tells me about an important event in his or her life, I almost feel as though I have experienced this event myself.	3.18	1.53	.671	.90
27	When I feel a change in emotions, I tend to come up with new ideas.	3.04	1.51	.665	.90
28	When I am faced with a challenge, I give up because I believe I will fail.	2.95	1.44	.644	.90
29	I know what other people are feeling just by looking at them.	3.07	1.51	.712	.90
30	I help other people feel better when they are down.	3.01	1.57	.690	.90
31	I use good moods to help myself keep trying in the face of obstacles.	3.01	1.57	.708	.90
32	I can tell how people are feeling by listening to the tone of their voice.	3.08	1.53	.765	.90
33	It is difficult for me to understand why people feel the way they do.	3.29	1.56	.671	.90

3.2 Measure of Validity of SSEIT:

To measure the validity of SSEIT, concurrent validity technique was employed to show how well SSEIT compares to other well established related test. Using the Pearson's r, correlations between SSEIT and TEIQue-SF were investigated. As summarized in Table 2, SSEIT correlated positively and significantly with TEIQue-SF ($r = .656, p = .000$). This result shows that SSEIT is valid for Nigerian population.

Table 2: Pearson's correlation of SSEIT and TEIQue-Short Form

	<i>Trait Emotional Intelligence Questionnaire (TEIQue-SF)</i>
<i>Schutte Self-Report Emotional Intelligence Test (SSEIT)</i>	.656**

** Significant at $p = .000$

3.3 Calculation of Norms of SSEIT

The cutoff value of the SSEIT for both male and female Nigerian adolescents is summarized in Table 3. By implication, any score below the cutoff is considered to be low EQ. This cut off result shows a significant difference in the score of the male (≥ 44.9) when compared by that of the female participants (≥ 43.9).

Table 3: Calculated New Norm for SSEIT Using Nigerian Samples.

Variable	Gender	SSEIT Norm
SSEIT	Male	≥ 44.9
	Female	≥ 43.9

4. Discussions

The focus of this study is to obtain a psychometric property for the **Schutte Self-Report Emotional Intelligence Test (SSEIT)** for the Nigerian adolescent population. The SSEIT in the Nigerian version reported a high Cronbach alpha similar to that which was obtained by the developer (Schuttle et al, 1998). The implication of this finding shows a good inter-relatedness of the items of the SSEIT, unidimensionality and homogeneity of the construct (Cortina, 1993; Bland & Altman 1997) among the Nigerian population. The alpha scores are also too high to render some items redundant as the alpha values did not exceed the maximum value of 0.90 (Streiner 2003; DeVellis 2003). The high alpha score in our study shows that SSEIT has a strong reliability value.

Finally, the obtained norm scores for the Nigerian sample is a novel addition to the scale as the developer and previous users of SSEIT did not indicate a norm for the scale. The norm derived from this study is suggestive of the fact that SSEIT is gender sensitive. This finding however is in support of the finding of the developer which reported that women in the original sample scored significantly higher mean \pm standard deviation than the men participants (Schuttle et al, 1998).

4.1 Conclusions and Recommendations

Based on the findings the 33-item of the SSEIT showed good internal reliability and a valid measure of emotional intelligence. The scale is gender sensitive posing different cutoff scores for both male and female participants. Accordingly, we conclude that SSEIT has acceptable psychometric properties for Nigerian population as it fits well to the Nigerian socio-cultural setting as a measure of EQ. Further validation studies using a larger sample, as well as other geopolitical regions of Nigeria are recommended.

Ethical Considerations

This study carried out investigations that involved human elements hence ethics of research for human subjects were observed in compliance with the Helsinki Declaration. The research intention and proposed procedures was subjected to scrutiny by the Internal Research Ethic Committee (IREC) of Redeemer's University Nigeria. Respondents' informed consent was sought and obtained before the instruments were administered.

Conflict of Interest

The authors declare that there is no conflict of interest.

References

- Adeyemo, D.A. & Ogunyemi B. (2005). "Emotional Intelligence and Self-Efficacy as Predictors of Occupational Stress among Academic Staff in a Nigerian University". *Electronic Journal of Organisational Learning and Leadership*, 4
- Bar-On, R. (1996). The era of the "EQ": Defining and assessing emotional intelligence. Toronto: Annual Convention of the American Psychological Association.
- Bar-On, R. (2000). Emotional and social intelligence: Insights from the Emotional Quotient Inventory (EQ-i). In Reuven Bar-On and James D.A. Parker (Eds.), *Handbook of emotional intelligence: Theory, development, assessment and application at home, school and in the workplace*. San Francisco: Jossey-Bass: 363-88.
- Bernet, M. (1996). Emotional intelligence: components and correlates. Toronto: Annual Convention of the American Psychological Association.
- Bland J, Altman D (1997). Statistics notes: Cronbach's alpha. *BMJ*;314:275. 10.1136/bmj.314.7080.572
- Cherry K. (2018). ID vs. EQ. Which one is more important? *VeryWell Mind*.

- Available:<https://www.verywellmind.com/co>
- Colman A. A Dictionary of Psychology (3 Ed.). Oxford University Press; 2008. ISBN: 9780199534067.
- Cooper, R. K., & Sawaf, A. (1997). *Executive EQ: Emotional intelligence in leadership and organizations*. New York: Grosset/Putnam.
- Cortina J. (1993). What is coefficient alpha: an examination of theory and applications. *Journal of applied psychology*. ;78:98-104. 10.1037/0021-9010.78.1.98
- DeVellis R (2003). *Scale development: theory and applications: theory and application*. Thousand Okas, CA: Sage
- Petrides, K. V. & Furnham, A. (2006). The role of trait emotional intelligence in a gender-specific model of organizational variables. *Journal of Applied Social Psychology*, 36, 552-569.
- Petrides, K. V. (2009). *Technical manual for the Trait Emotional Intelligence Questionnaires (TEIQue)*. London: London Psychometric Laboratory.
- Petrides, K. V., & Furnham, A. (2000). "On the Dimensional Structure of Emotional Intelligence", *Personality and Individual Differences*, 29: 313-320.
- Salami, S.O. (2007). "Relationships of emotional intelligence and selfefficacy to work attitudes among secondary school teachers in southwestern Nigeria". *Essays in Education*, 20: 43-56.
- Salovey, P., & Mayer, J. D. (1990). Emotional intelligence. *Imagination, Cognition and Personality*, 9, 185-211.
- Schutte, N.S., Malouff, J.M., Hall, L.E., Haggerty, D.J., Cooper, J.T., Golden, C.J., et al. (1998). Development and validation of a measure of emotional intelligence. *Personality and Individual Differences*, 25, 167-177.
- Segal J., & Smith M. (2013). *Emotional Intelligence (EQ). Helpguide*. Retrieved from http://www.helpguide.org/mental/eq5_raising_emotional_intelligence.htm
- Streiner, D. (2003). Starting at the beginning: an introduction to coefficient alpha and internal consistency. *Journal of personality assessment*. ;80:99-103. 10.1207/S15327752JPA8001_18