© Journal of the Indian Academy of Applied Psychology
April 2024, Vol. 50, Sp. Issue, 192-207

# Psychometric Evaluation of the Youth Social Competence Multifaceted Scale (YSCMS): A Validation Study

**Rambar Lavanya and Subramanian Kadhiravan**
Periyar University, Salem, Tamil Nadu, India

The primary objective of this study is to develop a reliable and valid scale for assessing the social competence, of youth. To achieve this, focus group discussions were conducted with school teachers, college professors, psychologists, parents, and youth to identify subconstructs of social competence. A total of 157 questions were initially generated based on the literature and insights obtained from the focused group discussion. A five-point Likert scale was employed for the response format, ranging from Never-(1) to Always-(5). The ABC of content validation was utilized to ensure content validity, and the content validity index was calculated following Yusoff's method (2019). Subsequently, the initial pool of 157 items was refined to 100 items. The finalized item pool was administered to a sample of 327 participants aged between 15 to 24 years chosen conveniently for exploratory factor analysis. Confirmatory factor analysis was subsequently employed to validate the identified constructs and determine their interrelationships. The reliability of the tool was found to be satisfactory. The results of these analyses and their implications are presented in the article.

**Keywords** : social competence, scale development, validation, youth

Social competence is defined as the social, emotional, cognitive, and behavioral skills needed for successful social adaptation. It also reflects having the ability to take another's perception of concerning a situation, learn from past experiences, and apply that learning to the changes in social interactions (*Semrud-Clikeman, 2007).*

Individuals who have competent skills use the knowledge to make positive relationships with other people (Rose-Krasnor , 1997) as well as expressed in the form of pro-social and altruistic behavior *(Semrud-Clikeman, 2007).* Social competence consists of social, emotional, behavioral, motivational, and cognitive elements, and it reflects the individual's development (*Felner, Lease, & Phillips (1990).* The definite indicators of social competence vary with age and are linked to developmental tasks like being independent by establishing a social network and leading a successful life (Erikson, 1994). To perform such tasks psychological resources are required. Being deficient and exhibiting inability could increase the risk for mental health symptoms in young adulthood (Bijl, De Graaf, Ravelli, Smit & Vollebergh, 2002; Kessler, Ronald et al., 2005). Moreover, social competence mostly depends on expectations by the society in which they are living; competence in specific social situations and cultural characteristics (Orpinas & Home, 2006).

## Need for the study

Numerous scales have been formulated to measure the social competence of adolescent and preadolescent children, a predominant approach relied on assessments from teachers and parents. Conversely, there has been limited emphasis on incorporating the viewpoints of students or individuals themselves through self-report methods. Numerous research endeavours

have centered on evaluating social competence within occupational contexts and other relevant spheres. To measure the social competence in youth, the emphasis was laid on appraising social functioning within academic settings as well as problem-related domains. After an inspection of the nature of the tools of social competence scales mentioned in table 1, there are standardized tools in the Indian context found which be old and not appropriate for youth in the age group between 15 and 24 years of the present study. Furthermore, the frame of reference of items does not appear to be satisfactory in our cultural context. Other tools were developed in foreign contexts and only applicable to pre-adolescent and adolescent populations. Hence the researcher intended to construct a standardized test of social competence for youth in the study's frame of reference.

Table 1: Exhibiting the Surveyed Social Competence Test/Scale

| S.No | Author , Year | Tools |
|---|---|---|
| 1. | Sana Hamid, Aysha Jabeen and Zhid Mahmood-(2019) | Development of Social Skills for Adolescents |
| 2. | Dominic A et al., (2018) | Multidimensional Social Competence Scale (MSCS) for young adults |
| 3. | Izabela Zych, Rosario Ortega-Ruiz et al.,(2017) | Social and Emotional Competencies Questionnaire in youth and Adolescence (SEC-Q) |
| 4. | Gomez-Ortiz, Romera and Ortega-Ruiz (2017) | The Adolescent Multidimentional Social Competence Questionnaire |
| 5. | Ming-Fir Tsai (2014) | Development of Social Competence for Adolescent |
| 6. | Merral, Kenneth W, (2008) | School Social Behavior Scale(SSBS-2) |
| 7. | Anderson-Butcher, D., Iachini, A. L., & Amorose, A. J. (2007) | PerceivedSocial Competence Scale |
| 8. | Gresham and Elliott,(1992) | Social skills rating system |

## Method

In the present study, mixed methods were utilized by the researcher. The procedure of constructing and validating the tools involves below mentioned steps:

(a) Formulation of the theoretical foundation through a review of relevant literature.

(b) Qualitative study: Item generation and establishment of the face validity (Item Generation and Formulation)

(c) Quantitative study: pilot testing, identifying and confirming the construct and estimation of the internal consistency of the tools (Empirical Evaluation of Items).

### Step 1: Formulation of the theoretical background using a literature review

An extensive literature review of the international and national research studies regarding social competence was conducted initially, focusing on the dimensions of the construct and the items used in the tools used

for measuring social competence. The search was conducted in PubMed, Google Scholar, Science Direct, Shodhganga, and Scopus using keywords such as social competence, youth, developmental model, social encoding, emotion regulation of youth, social skills, and social interactions with weightage on the research papers published during the last two decades. The most widely used measurement tools and dimensions for measuring the social competence of youth were identified in this step. Thus, a first draft with a pool of 157 items was generated.

Social competence develops over time at various developmental stages from infancy to young adulthood. Some of the components of social competence identified across the developmental stages include prosocial skills, anger management, negotiation skills, and problem-solving skills *(Semrud-Clikeman,*2007).

Based on the review of related literature the following elements of social competence were identified namely self-regulation, resilience, loyalty, adaptability/flexibility scholastic and other achievements, interpersonal relationship, social cognition in decision-making and problem-solving, assertiveness and sensitivity, team cohesion, non-impulsive/delay gratification, social skills, altruism, acceptance, the influence of others, negotiation, extraversion, body language, sense of humor, empathy, open-minded social maturity.

**Step 2: Qualitative study: Item generation and establishment of the face validity (Item Generation and Formulation)**

The First draft consisting of 157 items was given to focus groups (school teachers, college professors, psychologists, parents, and youth) who contributed with their expertise to check the dimensions of social competence and also check the inclusion of any missing items as well as the understandability of the items. They were requested to appraise each item thoroughly to confirm its congruence and validity concerning the objectives of this tool and further requested to give suggestions for improvement. The primary draft of items was developed, reviewed, and checked for their appropriateness. Expert feedback was processed and scrutinized accordingly. Subsequently, the pre-final iteration of the questionnaire were drafted and a content validation was conducted using the ABC of content validation (Yusoff 2019). Experts commented on the questionnaire content and construction and also made sure the items were not misleading, confusing, or double-barrelled.

The ABC of content validation was utilized to ensure content validity, and the content validity index was calculated using Yusoff's method (2019). According to Cook & Beckman,( 2006) & Haynes, Richard & Kubany(1995), "Content validity is defined as the degree to which elements of an instrument are relevant to and representative of the targeted construct for a particular assessment purpose"

**Content validation procedure**

The following outlines the procedure for content validation, comprising six distinct steps.

*(a) Preparing content validation form* – a form was prepared with the rating scale of relevance from 1 to 4 where the definitions of each dimension were stated clearly to have a clear understanding of the dimension (refer fig 2). Figure 1 & 2 shows a sample of instruction and rating scale in the content validation form items representing (measure) the social competence of youth given to the experts.


Figure 1- Instructions

| | ITEMS | RELEVENCE | | | | COMMENTS |
|---|---|---|---|---|---|---|
| | | 1 | 2 | 3 | 4 | |
| 1 | I can resist my temptation in all situations (P) | | | | | |
| 2 | It is difficult for me to notice my thoughts when I am in crowd (N) | | | | | |
| 3 | I can assess my feelings when I am in the midst of people (P) | | | | | |
| 4 | I am confused when in a group, which lead me to behave differently (N) | | | | | |
| 5 | I behave the same way with all the people (P) | | | | | |
| 6 | I place value to my personal identity and independence than anything else. (P) | | | | | |
| 7 | In a group, I find difficult to resist comparing myself to others. (N) | | | | | |

Figure 2- Sample rating scale form

(b) *panel of experts' selection* : The selection of experts to appraise the questionnaire is usually based on the individual expertise with the topic to be studied. Table 2 briefly outlines the number of experts and the acceptable cut-off score of CVI. In this study, 9 experts from the field of psychology experts were selected (Yusoff,2019). The experts are asked to give a rating of 3 0r 4 for an agreed item for the degree of relevance where 1 being the item is not relevant to the measured domain, 2 being the item is somewhat relevant to the measured domain, 3 being the item is quite relevant to the measured domain and 4 being the item is highly relevant to the measured domain to calculate the item-level content validity index (I-CVI). A rating of 3 or 4 by the experts was recorded whereas the rating of 1 or 2 was recorded as 0 to compute further for I-CVI values. The rated score from each expert for an item is summed to obtain the universal agreement (UA) score. Item-level content validity index (I-CVI) was calculated expert in agreement divided by the number of experts. Scale-level content validity index based on the average method (S-CVI/Ave) was calculated using the sum of UA scores/ number of items.

c) *Content validation Conduction* : The content validation can be conducted through the face-to-face or non-face-to-face approach. In the present study, both approaches were used, a printout of the items was given in content validation form to the experts and clear directions were provided (fig 2) to aid the content validation process.

d) *Reviewing domain and items*: The experts were requested to critically review the items before providing a score on each item. Verbal and written comments are recorded to improve the relevance of items to the targeted construct. The comments and suggestions were taken to refine the items.

Table 2. represents the relevance ratings for the item scale by 9 experts

| ITEMS | E1 | E2 | E3 | E4 | E5 | E6 | E7 | E8 | E9 | TEA | I-CVI | UA |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Q1 | 1 | 1 | 1 | 0 | 1 | 1 | 1 | 1 | 1 | 8 | 0.889 | 0 |
| Q2 | 1 | 1 | 0 | 0 | 1 | 1 | 0 | 1 | 1 | 6 | 0.667 | 0 |
| Q3 | 1 | 1 | 0 | 1 | 1 | 1 | 1 | 1 | 0 | 7 | 0.778 | 0 |
| Q4 | 1 | 0 | 0 | 0 | 1 | 0 | 1 | 0 | 1 | 4 | 0.444 | 0 |
| Q5 | 1 | 0 | 0 | 1 | 1 | 0 | 0 | 1 | 0 | 4 | 0.444 | 0 |
| Q6 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 0 | 1 | 8 | 0.889 | 0 |
| Q7 | 0 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 8 | 0.889 | 0 |
| Q8 | 1 | 1 | 0 | 1 | 1 | 1 | 1 | 1 | 0 | 7 | 0.778 | 0 |
| Q9 | 1 | 1 | 1 | 0 | 1 | 1 | 1 | 1 | 1 | 8 | 0.889 | 0 |
| Q10 | 0 | 1 | 0 | 1 | 1 | 1 | 1 | 0 | 0 | 5 | 0.556 | 0 |
| Q11 | 1 | 1 | 1 | 0 | 1 | 1 | 1 | 1 | 1 | 8 | 0.889 | 0 |
| Q12 | 1 | 1 | 0 | 0 | 1 | 1 | 1 | 1 | 0 | 6 | 0.667 | 0 |
| Q13 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 9 | 1 | 1 |
| Q14 | 1 | 1 | 0 | 0 | 1 | 1 | 1 | 1 | 1 | 9 | 1 | 1 |
| Q15 | 1 | 1 | 1 | 0 | 1 | 1 | 1 | 1 | 1 | 8 | 0.889 | 0 |
| Q16 | 1 | 0 | 0 | 1 | 1 | 1 | 0 | 1 | 1 | 6 | 0.667 | 0 |
| Q17 | 1 | 1 | 0 | 1 | 1 | 1 | 1 | 1 | 1 | 8 | 0.889 | 0 |
| Q18 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 9 | 1 | 1 |
| Q19 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 9 | 1 | 1 |
| Q20 | 1 | 0 | 0 | 1 | 1 | 0 | 1 | 1 | 0 | 5 | 0.556 | 0 |
| Q21 | 1 | 1 | 1 | 0 | 1 | 0 | 1 | 1 | 1 | 7 | 0.778 | 0 |
| Q22 | 1 | 1 | 1 | 0 | 1 | 1 | 1 | 1 | 1 | 8 | 0.889 | 0 |
| Q23 | 1 | 1 | 1 | 1 | 1 | 0 | 1 | 1 | 1 | 8 | 0.889 | 0 |
| Q24 | 1 | 1 | 1 | 0 | 1 | 1 | 1 | 1 | 1 | 8 | 0.889 | 0 |
| Q25 | 1 | 0 | 0 | 0 | 1 | 0 | 1 | 1 | 0 | 4 | 0.444 | 0 |
| Q26 | 1 | 1 | 0 | 0 | 1 | 1 | 0 | 1 | 0 | 6 | 0.667 | 0 |
| Q27 | 1 | 1 | 0 | 1 | 1 | 1 | 1 | 1 | 1 | 8 | 0.889 | 0 |
| Q28 | 1 | 1 | 0 | 0 | 1 | 1 | 1 | 1 | 0 | 6 | 0.667 | 0 |
| Q29 | 1 | 1 | 0 | 0 | 1 | 1 | 1 | 1 | 0 | 6 | 0.667 | 0 |
| Q30 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 0 | 8 | 0.889 | 0 |
| Q31 | 1 | 1 | 0 | 1 | 1 | 1 | 1 | 1 | 0 | 7 | 0.778 | 0 |
| Q32 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 9 | 1 | 1 |
| Q33 | 1 | 0 | 0 | 1 | 1 | 1 | 1 | 1 | 0 | 6 | 0.667 | 0 |

| | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Q34 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 9 | 1 | 1 |
| Q35 | 1 | 1 | 1 | 1 | 1 | 0 | 1 | 1 | 1 | 8 | 0.889 | 0 |
| Q36 | 1 | 0 | 1 | 1 | 1 | 0 | 1 | 1 | 1 | 7 | 0.778 | 0 |
| Q37 | 1 | 0 | 1 | 0 | 1 | 0 | 1 | 1 | 1 | 6 | 0.667 | 0 |
| Q38 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 9 | 1 | 1 |
| Q39 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 9 | 1 | 1 |
| Q40 | 1 | 1 | 1 | 1 | 0 | 1 | 1 | 1 | 1 | 8 | 0.889 | 0 |
| Q41 | 1 | 1 | 1 | 0 | 1 | 0 | 1 | 1 | 1 | 7 | 0.778 | 0 |
| Q42 | 1 | 0 | 1 | 1 | 1 | 0 | 0 | 1 | 1 | 6 | 0.667 | 0 |
| Q43 | 1 | 0 | 1 | 0 | 1 | 1 | 0 | 1 | 1 | 6 | 0.667 | 0 |
| Q44 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 9 | 1 | 1 |
| Q45 | 1 | 0 | 1 | 0 | 1 | 1 | 1 | 1 | 1 | 7 | 0.778 | 0 |
| Q46 | 1 | 1 | 1 | 1 | 1 | 0 | 1 | 1 | 1 | 8 | 0.889 | 0 |
| Q47 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 9 | 1 | 1 |
| Q48 | 1 | 1 | 1 | 0 | 1 | 1 | 1 | 1 | 1 | 8 | 0.889 | 0 |
| Q49 | 1 | 1 | 0 | 1 | 1 | 1 | 1 | 1 | 0 | 7 | 0.778 | 0 |
| A50 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 9 | 1 | 1 |
| Q51 | 1 | 1 | 0 | 1 | 1 | 1 | 1 | 1 | 0 | 7 | 0.778 | 0 |
| Q52 | 1 | 1 | 1 | 0 | 1 | 1 | 1 | 1 | 1 | 8 | 0.889 | 0 |
| Q53 | 1 | 1 | 1 | 0 | 1 | 1 | 0 | 1 | 1 | 7 | 0.778 | 0 |
| Q54 | 1 | 1 | 0 | 1 | 1 | 1 | 1 | 1 | 0 | 7 | 0.778 | 0 |
| Q55 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 9 | 1 | 1 |
| Q56 | 1 | 1 | 0 | 1 | 1 | 1 | 1 | 1 | 0 | 7 | 0.778 | 0 |
| Q57 | 1 | 1 | 0 | 1 | 1 | 1 | 1 | 1 | 0 | 7 | 0.778 | 0 |
| Q58 | 1 | 1 | 0 | 1 | 1 | 1 | 1 | 1 | 1 | 8 | 0.889 | 0 |
| Q59 | 1 | 0 | 1 | 0 | 1 | 1 | 1 | 1 | 1 | 7 | 0.778 | 0 |
| Q60 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 9 | 1 | 1 |
| Q61 | 1 | 1 | 0 | 1 | 1 | 1 | 1 | 1 | 0 | 8 | 0.889 | 0 |
| Q62 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 9 | 1 | 1 |
| Q63 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 9 | 1 | 1 |
| Q64 | 1 | 1 | 0 | 1 | 1 | 1 | 1 | 1 | 0 | 7 | 0.778 | 0 |
| Q65 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 9 | 1 | 1 |
| Q66 | 1 | 1 | 1 | 0 | 1 | 1 | 1 | 1 | 1 | 8 | 0.889 | 0 |
| Q67 | 1 | 0 | 0 | 1 | 1 | 1 | 1 | 1 | 0 | 6 | 0.667 | 0 |
| Q68 | 1 | 1 | 1 | 1 | 1 | 1 | 0 | 1 | 1 | 8 | 0.889 | 0 |

| | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Q69 | 1 | 1 | 1 | 1 | 1 | 1 | 0 | 1 | 1 | 8 | 0.889 | 0 |
| Q70 | 1 | 1 | 1 | 1 | 1 | 1 | 0 | 1 | 1 | 8 | 0.889 | 0 |
| Q71 | 1 | 1 | 1 | 0 | 1 | 1 | 1 | 1 | 1 | 8 | 0.889 | 0 |
| Q72 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 9 | 1 | 1 |
| Q73 | 1 | 1 | 1 | 0 | 0 | 1 | 1 | 1 | 1 | 7 | 0.778 | 0 |
| Q74 | 1 | 1 | 1 | 0 | 1 | 1 | 1 | 1 | 1 | 8 | 0.889 | 0 |
| Q75 | 1 | 0 | 0 | 0 | 1 | 1 | 1 | 1 | 0 | 5 | 0.556 | 0 |
| Q76 | 1 | 0 | 0 | 0 | 1 | 1 | 1 | 1 | 0 | 5 | 0.556 | 0 |
| Q77 | 1 | 1 | 1 | 0 | 0 | 1 | 1 | 1 | 1 | 7 | 0.778 | 0 |
| Q78 | 1 | 1 | 0 | 0 | 1 | 1 | 0 | 0 | 0 | 4 | 0.444 | 0 |
| Q79 | 1 | 1 | 0 | 1 | 1 | 1 | 1 | 1 | 0 | 7 | 0.778 | 0 |
| Q80 | 1 | 1 | 1 | 0 | 1 | 1 | 1 | 1 | 1 | 9 | 1 | 1 |
| Q81 | 1 | 1 | 0 | 1 | 1 | 1 | 1 | 1 | 0 | 7 | 0.778 | 0 |
| Q82 | 1 | 1 | 0 | 1 | 1 | 1 | 1 | 1 | 1 | 8 | 0.889 | 0 |
| Q83 | 1 | 1 | 0 | 1 | 1 | 1 | 0 | 1 | 0 | 6 | 0.667 | 0 |
| Q84 | 1 | 0 | 1 | 1 | 0 | 1 | 1 | 1 | 1 | 7 | 0.778 | 0 |
| Q85 | 1 | 1 | 1 | 0 | 1 | 1 | 1 | 1 | 1 | 8 | 0.889 | 0 |
| Q86 | 1 | 1 | 1 | 0 | 1 | 1 | 1 | 1 | 1 | 8 | 0.889 | 0 |
| Q87 | 1 | 0 | 1 | 0 | 0 | 1 | 1 | 1 | 1 | 6 | 0.667 | 0 |
| Q88 | 0 | 0 | 0 | 1 | 1 | 1 | 1 | 1 | 0 | 5 | 0.556 | 0 |
| Q89 | 1 | 0 | 0 | 1 | 1 | 1 | 1 | 1 | 0 | 6 | 0.667 | 0 |
| Q90 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 9 | 1 | 1 |
| Q91 | 1 | 1 | 0 | 1 | 1 | 1 | 1 | 1 | 0 | 7 | 0.778 | 0 |
| Q92 | 1 | 1 | 0 | 1 | 1 | 1 | 1 | 1 | 1 | 8 | 0.889 | 0 |
| Q93 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 9 | 1 | 1 |
| Q94 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 9 | 1 | 1 |
| Q95 | 1 | 1 | 1 | 1 | 0 | 1 | 1 | 1 | 1 | 8 | 0.889 | 0 |
| Q96 | 1 | 0 | 0 | 1 | 1 | 0 | 1 | 1 | 0 | 5 | 0.556 | 0 |
| Q97 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 9 | 1 | 1 |
| Q98 | 0 | 0 | 1 | 0 | 1 | 1 | 1 | 1 | 1 | 6 | 0.667 | 0 |
| Q99 | 1 | 1 | 0 | 0 | 1 | 1 | 1 | 1 | 0 | 6 | 0.667 | 0 |
| Q100 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 9 | 1 | 1 |
| Q101 | 1 | 1 | 1 | 0 | 1 | 1 | 1 | 1 | 1 | 8 | 0.889 | 0 |
| Q102 | 1 | 1 | 1 | 1 | 1 | 0 | 1 | 1 | 1 | 8 | 0.889 | 0 |
| Q103 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 9 | 1 | 1 |

| | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Q104 | 1 | 1 | 0 | 0 | 1 | 0 | 1 | 1 | 0 | 5 | 0.556 | 0 |
| Q105 | 1 | 1 | 1 | 0 | 1 | 1 | 1 | 1 | 1 | 8 | 0.889 | 0 |
| Q106 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 9 | 1 | 1 |
| Q107 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 0 | 1 | 8 | 0.889 | 0 |
| Q108 | 1 | 1 | 0 | 0 | 1 | 1 | 1 | 1 | 0 | 6 | 0.667 | 0 |
| Q109 | 1 | 0 | 0 | 1 | 1 | 1 | 1 | 1 | 0 | 6 | 0.667 | 0 |
| Q110 | 1 | 0 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 8 | 0.889 | 0 |
| Q111 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 9 | 1 | 1 |
| Q112 | 0 | 1 | 0 | 1 | 1 | 1 | 1 | 1 | 0 | 6 | 0.667 | 0 |
| Q113 | 1 | 1 | 0 | 1 | 1 | 1 | 1 | 1 | 0 | 7 | 0.778 | 0 |
| Q114 | 1 | 1 | 0 | 1 | 1 | 1 | 1 | 1 | 0 | 7 | 0.778 | 0 |
| Q115 | 1 | 1 | 0 | 1 | 1 | 1 | 1 | 1 | 0 | 7 | 0.778 | 0 |
| Q116 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 9 | 1 | 1 |
| Q117 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 9 | 1 | 1 |
| Q118 | 1 | 1 | 0 | 1 | 0 | 1 | 1 | 1 | 1 | 7 | 0.778 | 0 |
| Q119 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 7 | 0.778 | 0 |
| Q120 | 1 | 1 | 0 | 1 | 0 | 1 | 1 | 1 | 1 | 7 | 0.778 | 0 |
| Q121 | 0 | 1 | 0 | 0 | 1 | 1 | 1 | 1 | 1 | 6 | 0.667 | 0 |
| Q122 | 1 | 1 | 1 | 0 | 1 | 1 | 0 | 1 | 1 | 7 | 0.778 | 0 |
| Q123 | 1 | 1 | 1 | 0 | 1 | 1 | 1 | 1 | 1 | 8 | 0.889 | 0 |
| Q124 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 9 | 1 | 1 |
| Q125 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 9 | 1 | 1 |
| Q126 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 9 | 1 | 1 |
| Q127 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 9 | 1 | 1 |
| Q128 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 9 | 1 | 1 |
| Q129 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 0 | 1 | 8 | 0.889 | 0 |
| Q130 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 9 | 1 | 1 |
| Q131 | 1 | 0 | 0 | 1 | 1 | 1 | 1 | 1 | 0 | 6 | 0.667 | 0 |
| Q132 | 1 | 0 | 0 | 1 | 0 | 1 | 1 | 1 | 0 | 5 | 0.556 | 0 |
| Q133 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 9 | 1 | 1 |
| Q134 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 0 | 0 | 7 | 0.778 | 0 |
| Q135 | 1 | 1 | 0 | 1 | 1 | 1 | 1 | 1 | 0 | 7 | 0.778 | 0 |
| Q136 | 1 | 1 | 0 | 1 | 1 | 1 | 1 | 1 | 0 | 7 | 0.778 | 0 |
| Q137 | 1 | 0 | 0 | 1 | 1 | 1 | 1 | 1 | 0 | 6 | 0.667 | 0 |
| Q138 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 9 | 1 | 1 |

| | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Q139 | 1 | 0 | 0 | 1 | 1 | 1 | 1 | 1 | 1 | 7 | 0.778 | 0 |
| Q140 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 9 | 1 | 1 |
| Q141 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 9 | 1 | 1 |
| Q142 | 1 | 1 | 0 | 0 | 1 | 1 | 1 | 1 | 0 | 6 | 0.667 | 0 |
| Q143 | 1 | 1 | 1 | 1 | 1 | 0 | 1 | 1 | 1 | 8 | 0.889 | 0 |
| Q144 | 1 | 1 | 1 | 1 | 1 | 0 | 1 | 1 | 1 | 8 | 0.889 | 0 |
| Q145 | 1 | 1 | 0 | 1 | 1 | 1 | 1 | 1 | 0 | 7 | 0.778 | 0 |
| Q146 | 1 | 1 | 0 | 1 | 1 | 1 | 1 | 1 | 0 | 7 | 0.778 | 0 |
| Q147 | 1 | 1 | 0 | 1 | 1 | 1 | 1 | 1 | 0 | 7 | 0.778 | 0 |
| Q148 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 9 | 1 | 1 |
| Q149 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 9 | 1 | 1 |
| Q150 | 1 | 1 | 0 | 1 | 0 | 1 | 1 | 1 | 0 | 6 | 0.667 | 0 |
| Q151 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 9 | 1 | 1 |
| Q152 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 9 | 1 | 1 |
| Q153 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 9 | 1 | 1 |
| Q154 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 9 | 1 | 1 |
| Q155 | 1 | 1 | 1 | 0 | 1 | 1 | 1 | 1 | 1 | 8 | 0.889 | 0 |
| Q156 | 1 | 1 | 1 | 0 | 0 | 1 | 1 | 1 | 1 | 7 | 0.778 | 0 |
| Q157 | 1 | 1 | 1 | 0 | 1 | 1 | 1 | 1 | 1 | 8 | 0.889 | 0 |
| Total | 151 | 128 | 95 | 107 | 146 | 140 | 144 | 150 | 107 | | 130.7 | 44 |
| Average | 0.96 | 0.81 | 0.65 | 0.7 | 0.9 | 0.9 | 0.91 | 0.95 | 0.7 | | 0.83 | 0.28 |
| | | | | | | | | | | | SCV-I | |

Some of the suggestions are

i) Remove the double-barrelled questions ii) sentence to be rephrased iii) improve the clarity of the item iv) use simple sentences v) reduce the number of items v) reduce the ambiguity vi) reduce the length of the items vii) delete the repeated items

e) *Providing a score on each item:* Upon completion of the review process, the experts provide a score on each item (Figures 1 and 2). Once the scoring is done the following values are calculated numerically as shown in table 2.

**Calculating CVI (Yusoff,2019)**

i. Experts in agreement:

ii. Universal agreement (UA):

iii. I-CVI: 0.83

iv. S-CVI/Ave (based on I-CVI): 0.83

v. S-CVI/Ave (based on proportion relevance):0.83

vi. S-CVI/UA: 2.26

Based on the above calculation, the researcher concludes that I-CVI, S-CVI/Ave, and S-CVI/UA meet satisfactory levels (Yusoff,2019), and thus the questionnaire measuring the social competence of youth has achieved a satisfactory level of content validity.

(iii) Quantitative study: pilot testing, identifying and confirming the construct and estimation of the internal consistency of the tools (Empirical Evaluation of Items).

The quantitative study included administering the questionnaire to 327 youth in the age group of 15-24 years who were selected purposively. A questionnaire was given to volunteers and through Google Forms and their responses were recorded. Exploratory and confirmatory factor analysis was performed to check the structural validity of the scale, while Cronbach's alpha coefficients were estimated to check the internal consistency of the tool.

a) Exploratory factor analysis

b) Confirmatory factor analysis

c) Cronbach alpha coefficient

**a) Exploratory factor analysis**

Table 3 represents the Kaiser-Meyer-Olkin Measure of Sampling Adequacy and Bartlett's Test of Sphericity

| | | |
|---|---|---|
| Kaiser-Meyer-Olkin Measure of Sampling Adequacy. | | 0.832 |
| Bartlett's Test of Sphericity | Chi-Square value | 1787.52 |
| | P value | < 0.001** |

Note: ** p< 0.01

The Kaiser-Meyer-Olkin Measure of Sampling Adequacy is a statistical metric that indicates the proportion of variance in variables that could be attributed to underlying factors. The Kaiser-Meyer-Olkin value of 0.832 is greater than 0.50 indicates that a factor analysis is suitable for the collected data which indicates the adequacy of the sample. Bartlett's test of Sphericity examines the hypothesis that a correlation matrix is an identity matrix, indicating that variables are uncorrelated and, therefore, not suitable for factor identification. Since the p-value is less than 0.01, the hypothesis is rejected and indicates that variables are related and factor analysis can be done with our data.

Table 4. Factor Loading, Eigen value and Percentage of Extraction using Principle Component Method based on Social competence of youth

| Factor | Statement for Social Competence of youth | Factor loading | Eigen Values | % of variance | Cumula-tive % |
|---|---|---|---|---|---|
| Self-containment | | | | | |
| | Q1 | .635 | 3.351 | 31.964 | 31.964 |
| | Q41 | .618 | | | |
| | Q49 | .544 | | | |
| | Q25 | .504 | | | |
| Conflict management | | | | | |
| | Q22 | .684 | 3.032 | 15.820 | 47.784 |
| | Q42 | .676 | | | |
| | Q10 | .647 | | | |
| | Q58 | .575 | | | |
| Prosocial behaviour | | | | | |
| | Q7 | .695 | 2.276 | 14.001 | 61.785 |
| | Q15 | .673 | | | |
| | Q11 | .617 | | | |
| | Q76 | .574 | | | |
| | Q95 | .485 | | | |
| | Q63 | .462 | | | |
| Personality attribution | | | | | |
| | Q28 | .738 | 1.568 | 11.574 | 73.359 |
| | Q80 | .725 | | | |
| | Q72 | .700 | | | |
| | Q64 | .616 | | | |
| | Q44 | .540 | | | |
| | Q40 | .529 | | | |

From Table 4 it is evident that 4 factors (eigenvalue > 1) have been extracted. From the Cumulative Percentage of Variance value is evident that 4 factors extracted together account for 73.359 % of the total variance from the information contained in the original 100 variables which means that only 26.641% of the information content is lost.

Factor loadings of the variables extracted are 0.635, 0.712, 0.618, 0.544, and 0.501 of factor 1 with an eigenvalue of 3.351 and their percentage of extraction is 31.964. From this, it is obvious that that Factor 1 is a combination of these 4 original variables namely "1. I can resist my temptation even in tough situations; 2.My friends trust me all times; 3.During critical times, people can rely on me; 4. In every difficult situation, I find my way out for a solution". Factor 1 is named as Self-containment.

From the above table, it is evident that 4 variables have loadings of 0.684, 0.676, 0.618, 0.647, and 0.575 of factor 2 with an eigenvalue of 3.032, and their percentage of extraction is 15.820. From this, it is obvious that Factor 2 is a combination of these 4 variables namely "1. "I respect the decisions of others; 2. I respect others despite their differences; 3. Being close with boys and girls makes me feel comfortable; 4. I make others comfortable when they have through body postures " and it is named as Conflict management.

With respect to 3rd factor 6 variables have loadings of 0.695, 0.673, 0.617, 0.574,0.485, and 0.462 with an value of 2.276 and their percentage of extraction is 14.001. From this it is obvious that that Factor 3 is a combination of these 6 original variables namely " 1. I voluntarily help others even when they not approached; 2. At times of need, I help even the unknown; 3. By helping others, I expand my circle of connections; 4. I cheer up my friends when they are down; 5. Whenever I initiate a topic, I am doing it in a friendly manner; 6.I consider other people's suggestions and opinions for making best decisions" and it is called Prosocial behavior.

Concerning 4th factor 6 variables have loadings of 0.738, 0.725, 0.700, 0.616,0.540, and 0.462 I with eigen value of 2.276, and their percentage of extraction is 14.001. From this, it is obvious that Factor 4 is a combination of these 6 original variables namely "1. I give value to those who listen to me; 2. I make sure to be available to those who need me in tough situations; 3.I respect people's feelings even they are not close to me; 4. I pay attention to what others say when they talk; 5.My sense of humour helps me to get close with others; 6.I prefer to observe the body language of others to handle people " and it is named as Personality attribution. Hence these four factors were extracted from principle component analysis.

**b) Confirmatory factor analysis**

In the above figure SC1, SC 2, SC 3, SC 4, CM1, CM2, CM3, CM4, PB1, PB2, PB3 ,PB4, PB5, PB6, PA1, PA2, PA3, PA4, PA5, PA6 observed variables and error variance is introduced for that. The latent variables Social containment (SC), Conflict management (CM), Prosocial behavior (PB), and Personality Attribute (PA) are the construct and hence they both are correlated with two -way arrow. From Table 5 it is evident that the chi-square value is (1.664), GFI (0.897), AGFI (0.868 ), CFI (0.910), RMR (0.073) and RMSEA (0.053) have met the thumb rule, hence the social competence scale model is found to be fit.

**c) Cronbach alpha coefficient**

Cronbach's alpha coefficients was calculated using SPSS 21 and the values are given in the table below. The overall Cronbach's alpha coefficient was found to be 0.814. For individual items, it ranges from 0.797 to 0.812. This value indicates that the social competence scale for youth has high

internal consistency since this value of 0.814 is closer to 1.0 (Hair et al, 1998). So it can be concluded that the social competence scale for youth is highly reliable.

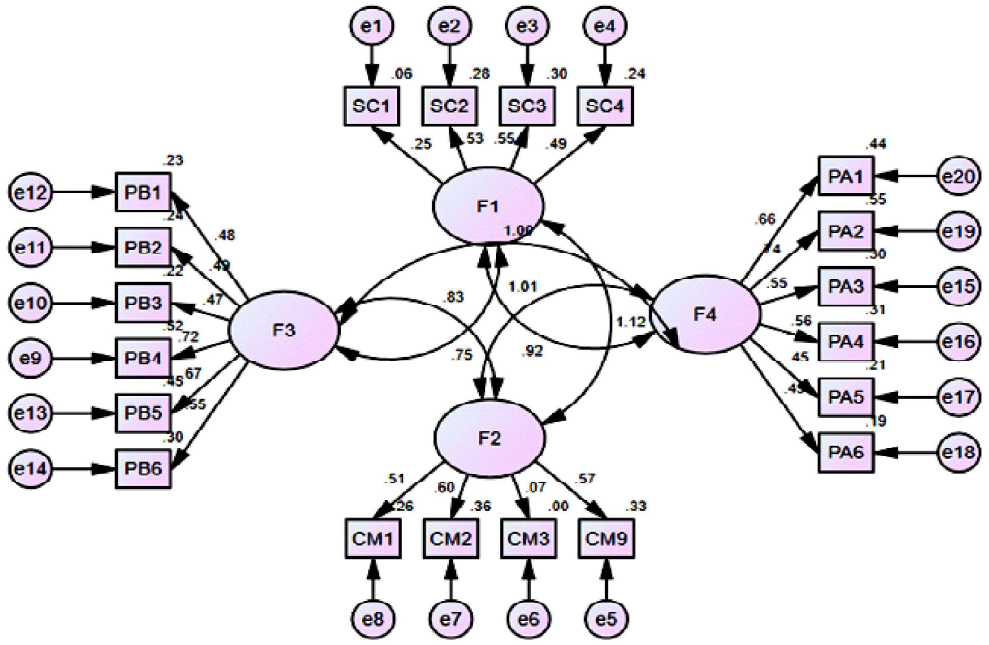


Fig 3. Confirmatory Factor Analysis

Table 5. Results of Model Fitness from CFA (Social Competence)

| Model | Chi-square | GFI | AGFI | CFI | RMR | RMSEA |
|---|---|---|---|---|---|---|
| Social competence | 1.664 | 0.897 | 0.868 | 0.910 | 0.073 | 0.053 |
| Recommended value | < 5 | 0.8-0.9 | 0.8-0.9 | >0.90 | <0.08 | <0.08 |

Source: Fit Indices - Hair et al.(2010)[1], Hu & Bentler (1999)[2]

Table 6. representing the Cronbach alpha coefficient of the Final draft of items

| Cronbach's Alpha | N of Items |
|---|---|
| .814 | 20 |

| | Mean | Std. Deviation | Scale Mean if Item Deleted | Scale Variance if Item Deleted | Corrected Item-Total Correlation | Cronbach's Alpha if Item Deleted |
|---|---|---|---|---|---|---|
| Q1 | 2.96 | 1.107 | 63.05 | 149.854 | .307 | .810 |
| Q41 | 3.26 | 1.431 | 62.74 | 147.555 | .282 | .812 |
| Q49 | 3.30 | 1.295 | 62.70 | 145.652 | .386 | .806 |
| Q25 | 3.45 | 1.312 | 62.55 | 146.426 | .355 | .808 |
| Q22 | 3.38 | 1.312 | 62.63 | 145.155 | .397 | .806 |
| Q42 | 3.36 | 1.379 | 62.64 | 142.556 | .454 | .802 |

| | | | | | | |
|---|---|---|---|---|---|---|
| Q10 | 3.41 | 1.404 | 62.60 | 147.284 | .298 | .811 |
| Q58 | 3.23 | 1.351 | 62.78 | 144.996 | .387 | .806 |
| Q7 | 3.29 | 1.340 | 62.71 | 145.543 | .373 | .807 |
| Q15 | 3.40 | 1.348 | 62.60 | 144.768 | .395 | .806 |
| Q11 | 3.11 | 1.410 | 62.89 | 148.071 | .272 | .812 |
| Q95 | 3.23 | 1.344 | 62.78 | 144.315 | .411 | .805 |
| Q63 | 3.13 | 1.383 | 62.87 | 142.376 | .458 | .802 |
| Q28 | 3.56 | 1.449 | 62.45 | 145.045 | .351 | .808 |
| Q80 | 3.24 | 1.282 | 62.76 | 145.483 | .397 | .806 |
| Q72 | 3.38 | 1.391 | 62.62 | 141.352 | .487 | .800 |
| Q64 | 3.43 | 1.294 | 62.58 | 140.699 | .555 | .797 |
| Q44 | 3.27 | 1.316 | 62.73 | 148.110 | .299 | .811 |
| Q76 | 3.36 | 1.385 | 62.65 | 144.677 | .385 | .806 |
| Q40 | 3.27 | 1.299 | 62.73 | 145.527 | .389 | .806 |

Table 7. Final draft of Social Competence Scale

| No of Items | Remarks |
|---|---|
| 157 | Constructed the items based on literature and focused group discussion |
| 100 | Based on ABC content validation (Yusoff,2009) |
| 20 variables with four factors | Exploratory Factor Analysis |
| 1. Self-containment – 4 items | Confirmatory Factor Analysis |
| 2. Conflict management - 4 items | |
| 3. Prosocial behaviour - 6 items | |
| 4. Personality attribution - 6 items | |

**Scoring of the Social Competency Scale**

Table 8: Quartiles of the Social Competency Scale

| Social competency | Percentile 25 | Median | Percentile 75 |
|---|---|---|---|
| | 70 | 77 | 84 |

The researcher has constructed a five-point scale to measure the social competency of youth. The scale had 20 items with 4 dimensions. Each item of this scale has to be responded to on 5 5-point rating scale of 1 being (Never) to 5 being (Always). The social competency score of a subject is the sum of the item scores of all four subscales. The scores on the scale range from 20 to 100 with the higher score indicating the youth to be socially competent. From the data analyzed it was found that scores lie below 70 were considered as a low level of social competence, above 84 was considered as a high level of social competence, and between 70 and 84 was considered as moderate level of social competence

## Results

Confirmatory factor analysis validated the assumed theoretical model with the four components of the social competence scale for youth namely (a) 1. Self-containment – 4 items (for example, managing temptations, crisis) 2.Conflict management - 4 items (for example, respecting the decision of others) 3.Prosocial behaviour - 6 items (example, helping others) 4. Personality attribution - 6 items (example, respecting others' feelings, attending to others). Researchers provide strong evidence for social initiative and self-efficacy within individuals, peers, family, and parents as a core dimension for social competence for adolescents. Specifically, Shujja and Malik (2011) described self-control, empathy and helping behaviour, social skills and obedience, assertiveness, antisocial behaviors, and communication skills as important components of children's social competence. However, in the present study it was highlighted that in addition to social containment and prosocial behavior, conflict management and personality attribution are vital for the youth when they undergo transition from adolescence to young adulthood.

## Conclusion

A reliable and valid scale to measure the social competence of youth aged between 15-24 years was developed. The components of social competence of youth were identified as Self-containment, Conflict management, Prosocial behavior, and personality attribution. The youth social competence scale could be very useful in assessing the social competence of youth as well as would be helpful to social psychologists, trainers, human resource managers, and interventionists in planning their intervention.

## Implications and Suggestions

It is an initiative in measuring the social competence of youth in the Indian context and this research provides new guidelines to researchers investigating social competence with the above identified components. These findings may be useful for social science researchers, counsellors, educationists, and clinical psychologists to develop intervention programs to enhance the social competence of youth. In the data were gathered from various culturally diverse schools and colleges of Chennai city in Tamil Nadu. Hence the prospective researchers may attempt to select more samples from various states to generalize the findings. In further research, it would be interesting to have a larger number of participants with various educational qualifications to explore the model with a longitudinal study.

## References


Attili, G. (1990). Successful and disconfirmed children in the peer group: Indices of social competence within an evolutionary perspective. Human Development, 33(4-5), 238-249.

Bijl et al., 2002 R.V. Bijl, R. De Graaf, A. Ravelli, F. Smit, & W.A.M. Vollebergh. (2002). Gender and age-specific first incidence of DSM-III-R psychiatric disorders in the general population. Results from the Netherlands mental health survey and incidence study (NEMESIS. Social Psychiatry and Psychiatric Epidemiology, 37 (8) (2002), pp. 372-379, 10.1007/s00127-002-0566-3.

Cook, D. A., & Beckman, T. J. (2006). Current concepts in validity and reliability for psychometric instruments: theory and application. The American journal of medicine, 119(2), 166-e7.

Duck, S. (1989). Socially competent communication and relationship development. In Social competence in developmental perspective (pp. 91-106). Dordrecht: Springer Netherlands.

Ford, M. E. (1982). Social cognition and social competence in adolescence. Developmental psychology, 18(3), 323.