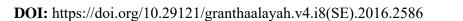**INTERNATIONAL JOURNAL OF RESEARCH – GRANTHAALAYAH**

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Social

CONSTRUCTING AND VALIDATING A SCALE FOR ASSESSING THE SOCIABILITY OF TEACHERS

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ABSTRACT

In the present context, educationist and education planners have started preferring social learning environments in the classrooms. Thus arises the need for teacher behaviour characteristically 'sociable' in nature. The ability to be in the company of others is the core of 'sociability'. On analyzing literature, the author has identified three constructs forming the core of sociability – Trust and belonging; Sense of community; and Good working relationship. On the basis of these altogether 36 statements were formed to be answered on a 4 point scale ranging from Strongly Agree to Strongly Disagree. After establishing content validity, item validity, and construct validity, the draft tool retained thirty items. The presence of the trait constructs were established by confirmatory factor analysis. The rested reliability coefficient 0.697 upholds the consistency of the tool.

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1. INTRODUCTION

Teachers irrespective of the stages at which they are teaching or the cadre they hold, they have to play similar roles in the teaching – learning process. However, if someone starts listing the roles they play in different contexts, it keep on extending along with changes coming upon different phases of education, affecting the intellectual, emotional, social, moral, spiritual, and physical domains of the learners. Focusing on physical strength and health oriented education, the aims of education have been shifting from one to another with the passage of time on the basis of the philosophy of life the people hold and the scientific advancement opening spaces for adoption of quite different life styles.

In the present educational scenario, the educationist and the educational planners, having realized the strength and weakness of IT / digital based teaching and learning, have started preferring social learning environment in the classrooms for securing social learning for learners. Thus arises the need for teacher behaviour characteristically *sociable* in nature for structuring an environment for promoting *sociability* among the students.

2. BACKGROUND

Sociability is a personality trait, the ability to be fond of the company of others; people who are sociable are inclined to seek out the opportunity of social contact with others (retrieved).

When one analyses the social nature of children it may be observed that the children acquire knowledge by interaction with others in their innate capacity. One can also recognize their enjoyment of being together – chatting, joking, laughing, working, and creating friendships. It is through this interaction they are initiated into new thoughts and feelings that help them approach different life situations. This is what being termed as '*sociability*'.

The key aspects of *sociability* are those skills that help one understand and express feelings, and behaviours that facilitate positive relationships. It includes self-regulation, active listening, cooperation, and effective communication. All these work together to build social – emotional learning skills necessary for human thriving. That is why; Cathy Yeulet (2015) has marked *sociability* as the core of social – emotional learning (retrieved).

It has been shown that cooperative ability to engage with others is critical to successful learning communities. A study on the Economic Value of social – emotional learning suggests that classroom efforts to improve *sociability* are well worth the costs. The social – emotional learning programmes were found to have measurable benefits in the form of Reduced Aggression, and Improved impulse Control from 3 to 13 times more than their costs of schools. *Sociability* flourishes when individuals feel connected, respected, cared about and when they can communicate their feelings of connectivity with others. Besides education, *sociability* is also an advantage to business leaders for leading, managing, and innovating in a world of increasing complexity.

Therefore, *sociability* is increased when individuals cooperate with each other. In a place where cooperation is undervalued, and the individuals cooperate for power, status, or achievement, *sociability* is lost. It means that there is urgent need to shift from more traditional leadership approaches that force cooperation through rules, to ways of creating shared norms. In this setting in classrooms, teachers become facilitators as students discuss ways they would feel most supported, including how they should treat each other, what it means to respect different opinions, and ways of learning and what happens when they disagree. As a result of their involvement, student comes to own their belief that cooperation is the right way to behave. It is also an experiential lesson to understand *sociability* as the goal of democracy.

3. REVIEW

In a study entitled 'the role of Sociability Self-concept in the relationship between exposure to and concern about aggression in middle schools', Miller Janic Williams (2013) has reported students who witnessed more aggression at schools tended to be more concerned about aggressive incidents occurring. The prediction of concern by exposure was stronger among students low in sociability self-concept and weaker for those high sociability self-concept. Sociability self-concept thus appeared to be protective factor in the sense that it buffered the effect of exposure to aggression on concern about violence at school.

Abedin Babik et al (2012) have identified in their study 'do non task interactions matter'? the relationship between non task sociability of computer supported collaborative learning and learning outcomes; five attributes opearationalising the non-task sociability: Finding help, Sense of appealing, Sense of boringness, Sense of interactivity, and Sense of frustration. By working on non-task sociability in the study entitled 'enhancing non task sociability of Asynchronous CSCL environments' Abedin Babik et al (2011) have developed and validated an instrument to measure social functionality of the environment.

The influence of family size and parenting style was investigated by Trent Katherine and Spitze Glenna (2011) in the study entitled 'growing up without siblings and adult sociability behaviors' and have reported that there are some differences in adult sociability behaviours between those who grew up with and without siblings. The study also suggests that these differences are not large or pervasive across a range of sociability behaviors and may grow smaller with age.

Ng, Rowena et al (2013) have identified the link between emotional expressivity through music and sensitivity and responsibility to emotions of others in the case of people with Williams syndrome. Kreijans Karel et al (2007) in their study 'measuring perceived sociability of computer supported collaborative learning environments' have defined sociability 'as the extent to which an environment is perceived to be able to facilitate the emergence of a sound social space with attributes as Trust and Belonging, a strong sense of community, and Good Working Relationships. Specific environmental characteristics designated as 'social affordances' are stated to be the factors determining sociability. Further, the study deals with the construction and validation of a self-reporting sociability scale consisting of 10 items and has the internal consistence of 0.92.

4. PREPARATION OF THE DRAFT TOOL

After reviewing the literature on sociability the researcher has understood that this area is not yet much investigated to identify the positive impact of the trait sociability on different personality characteristics and its advantages of application in the field of education and other allied fields. Though sociability has been studied in different context in the field of education pertaining to students, classrooms, teachers, and other institutional environments; still there are possibilities for in-depth studies on sociability in terms of teachers of different cadres, institutions of different categories, institutions offering academic, vocational, and other professional courses. The studies reviewed are mostly children oriented or individuals of typical development.

Since sociability has been established as a crucial factor for fostering essential social skills in individuals to be persons of social wellbeing, in the school context the teachers are expected to be sources for creating a social environment for teaching learning process so as to inculcate the same in the learners. That is, unless the teachers are sociable, sociability cannot be practiced in the classrooms. The adoption of group method, collaborative learning method, etc for the maintenance of relationships among the members of the groups is of very importance for the successful practice of cooperation, coordination, and collaboration leading to sociability. In the study reported by Kreijans Karel et al (2007), it is shown that the sociability exists in a school environment when the members feel the presence of *trust and belonging; sense of community; and good working relationships*. These are to be understood as the constructs of sociability in an academic environment. Such an environment will become feasible only when the teachers practice all these three attributes of sociability in the school environment. Therefore, the researcher has treated trust and belonging, sense of community and good working relationship as the dimensions of sociability existing in classroom environment.

On the basis of this, statements have been prepared to be included under each dimension to be answered by the subjects in a four point scale as:

Strongly Agree – Agree Disagree – Strongly Disagree.

The following table furnishes the number of statements prepared for the proposed sociability scale.

Table 1: Dimension wise number of statements of the Sociability Scale

S.N0	Dimension	No. of Items
1	Trust and Belonging	12
2	Sense of Community	12
3	Good Working Relationship	12
Total		36

5. VALIDATION OF THE TOOL

Validity of an assessment is the degree to which it measures what it is supposed to measure. Validity is also dependent on the instrument measuring what it was designed to measure, and not something else instead. Validity is based on matters of degrees; validity is not an all or nothing idea.

CONTENT VALIDITY

Copies of the Draft Tool were provided to Three Experts guiding Doctoral studies in Education with a request to study the appropriateness of the statements prepared and offer suggestions for better alterations or modifications. On the basis of the suggestions provided by the experts alterations and verbal reforms were made to make the tool more relevant and appropriate to assess the sociability.

ITEM VALIDITY

To establish the statistical validity, the modified Draft tool was administered to 100 higher secondary students. After scoring responses of the respondents, the validity of each item has been established by subjecting the data to Goodness of Fit Test, which is otherwise called one sample test of chi square. It is one of the several applications of chi square test (Cohen Louis, 1976).Here it is used to test the null hypothesis formed for every Reaction statement in the draft tool that the responses obtained under Strongly Agree, Agree, Disagree, and Strongly Disagree are not by CHOICE.

Table 2 furnishes the Goodness of Fit value for all the 36 items prepared.

Table 2: Goodness of Fit Value of Items of Sociability Scale

Item No.	Goodness of Fit Value	Table Value at .01Level	Remark on H_0	Item No.	Goodness of Fit Value	Table Value at .01Level	Remark on H_0
1	26.18	11.34	Rejected	19	35.76	11.34	Rejected
2	48.62	11.34	Rejected	20	41.76	11.34	Rejected
3	32.15	11.34	Rejected	21	32.71	11.34	Rejected
4	30.48	11.34	Rejected	22	8.92	11.34	*Accepted*
5	28.62	11.34	Rejected	23	31.76	11.34	Rejected
6	26.95	11.34	Rejected	24	31.20	11.34	Rejected
7	28.48	11.34	Rejected	25	30.96	11.34	Rejected
8	7.29	11.34	*Accepted*	26	29.07	11.34	Rejected
9	35.48	11.34	Rejected	27	19.62	11.34	Rejected
10	34.42	11.34	Rejected	28	29.52	11.34	Rejected
11	29.64	11.34	Rejected	29	33.67	11.34	Rejected
12	23.41	11.34	Rejected	30	29.34	11.34	Rejected
13	33.36	11.34	Rejected	31	26.82	11.34	Rejected
14	31.52	11.34	Rejected	32	25.68	11.34	Rejected
15	61.28	11.34	Rejected	33	38.80	11.34	Rejected
16	8.61	11.34	*Accepted*	34	45.08	11.34	Rejected
17	34.24	11.34	Rejected	35	26.64	11.34	Rejected
18	34.21	11.34	Rejected	36	22.16	11.34	Rejected

Table 2 shows that 33 Statements are **Retained** because the stated null hypotheses for these statements are **Rejected** at 0.01 level.

CONSTRUCT VALIDITY

Using the tabulated data, the Item - Dimension total correlation was computed for each Statement to establish the construct validity of the newly formed tool. The Dimensions:***Trust***

and Belonging, Sense of Community, and Good Working Relationship are incorporated in the Statements.

Table 3 reveals the Item - Dimension total correlation for the 33 items.

Table 3: Item – Dimension Total Correlation value of Sociability Scale

Item No	r Value	Item No	r Value	Item No	r Value
1	0.48	12	0.34	23	0.46
2	0.51	13	0.62	24	0.38
3	0.04*	14	0.51	25	0.52
4	0.43	15	0.59	26	0.23
5	0.26	16	0.38	27	0.24
6	0.54	17	0.40	28	0.29
7	0.39	18	0.27	29	0.10*
8	0.32	19	0.39	30	0.61
9	0.09*	20	0.50	31	0.35
10	0.21	21	0.46	32	0.29
11	0.28	22	0.28	33	0.21

*** items deleted**

From table 3 it may be seen that 30 Statements are significantly correlated with their respective dimensions and retained in the scale; whereas three statements which have not secured significant correlation with their dimension were deleted.

Thereafter, correlation was computed between the dimension wise total and the overall total of the scale. The noted correlation coefficients are provided in table 4.

Table 4: Dimension - Total Correlation of Sociability Scale

S.N	Dimension	'r' value	Significance
1	Trust and belonging	0.69	0.00
2	Sense of community	0.81	0.00
3	Good working relationship	0.76	0.00

Since the correlation between dimensions and overall total score of Sociability Scale is significant at 1% level, the contribution of dimensions to the total score is confirmed.

FACTORIAL VALIDITY

Finally the researcher has decided to make the process of validation complete by Factor Analysis. The partially validated draft tool was again administered to 200 subjects chosen by random from various schools of Tirunelveli district. The tabulated data were used for Factor Analysis.

The process of factor analysis started with the extraction of Communality Values for all the 30 items. The Extracted Values are furnished in Table 5. All the 30 items have recorded more than 0.61, proving their suitability for inclusion.

Table 5: Communality value of Sociability Scale

Item No	Initial value	Extraction	Item No	Initial value	Extraction	Item No	Initial value	Extraction
1	1.00	0.62	2	1.00	0.70	3	1.00	0.72
4	1.00	0.74	5	1.00	0.71	6	1.00	0.66
7	1.00	0.63	8	1.00	0.82	9	1.00	0.81
10	1.00	0.82	11	1.00	0.76	12	1.00	0.66
13	1.00	0.69	14	1.00	0.66	15	1.00	0.69
16	1.00	0.64	17	1.00	0.78	18	1.00	0.82
19	1.00	0.65	20	1.00	0.72	21	1.00	0.61
22	1.00	0.62	23	1.00	0.64	24	1.00	0.82
25	1.00	0.70	26	1.00	0.68	27	1.00	0.79
28	1.00	0.64	29	1.00	0.72	30	1.00	0.81

The further analysis to explain the total variance of each component by Initial Eigen Values is given in Table 6.

Table 6: Extraction Sums of Squared Loading of Sociability Scale

Total Variance Explained

Component	Initial Eigen values			Extraction Sums of Squared Loadings		
	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %
1	7.167	23.886	23.886	7.167	23.886	23.886
2	5.324	17.741	41.627	5.324	17.741	41.627
3	4.326	14.422	56.049	4.326	14.422	56.049
4	3.658	12.190	68.239	3.658	12.190	68.239
5	2.854	9.513	77.752	2.854	9.513	77.752
6	1.452	4.815	82.567	1.452	4.815	82.567
7	1.124	3.742	86.309	1.124	3.742	86.309
8	.965	3.213	89.522	.965	3.213	89.522
9	.854	2.843	92.365	.854	2.843	92.365
10	.851	2.833	95.150	.851	2.833	95.150
11	.710	2.791	97.989	.710	2.791	97.989
12	.617	2.054	100.000	.617	2.054	100.000
13	5.632E-16	1.083E-15	100.000			
14	5.065E-16	9.740E-16	100.000			
15	2.619E-16	5.037E-16	100.000			
16	2.166E-16	4.165E-16	100.000			
17	1.437E-16	2.764E-16	100.000			
18	9.785E-17	1.882E-16	100.000			
19	7.925E-17	1.524E-16	100.000			
20	-4.323E-17	-8.313E-17	100.000			

21	-1.489E-16	-2.863E-16	100.000				
22	-2.430E-16	-4.673E-16	100.000				
23	-2.960E-16	-5.692E-16	100.000				
24	-4.185E-16	-8.048E-16	100.000				
25	5.632E-16	1.083E-15	100.000				
26	5.065E-16	9.740E-16	100.000				
27	2.619E-16	5.037E-16	100.000				
28	-7.980E-17	-2.955E-16	100.000				
29	-2.495E-16	-9.241E-16	100.000				
30	-4.100E-16	-1.518E-15	100.000				

It is understood from the table that the first three components explain a variance ranging from 23.866 to 56.049., while the components four, five and six are shown to explain the variance to the maximum of 68.239, 77.752, and 82.567 respectively. It may be understood that though three components have been incorporated in the scale, another three components of lesser values seem to be present. Therefore, considering the negligible difference between the components three and four; and four and five; and five and six, all the three have been (4,5,and 6) have been dropped. Therefore, these three components may be treated as the major constructs of the instrument designed to assess sociability.

Thereafter, the contribution of each item to these three factors has been computed principal component analysis using Varimax Rotation Method with Kaiser normalization. The generated rotated component matrix is given in Table 7.

Table 7: Principal Component Analysis values of Sociability Scale

Component						
	1	*2*	*3*	*4*	*5*	*6*
item1	**.487**	.462	-.263	.482	.298	-.224
item2	-.182	**.383**	.518	.255	.194	.103
item3	.250	-.101	**.302**	-.193	-.096	.422
item4	**.250**	.048	-.317	-.285	.300	.068
item5	.174	**.256**	.235	.037	.196	-.068
item6	-.397	-.064	**.443**	.233	.379	.110
item7	**.328**	.244	.196	.146	-.019	.532
item8	-.138	**.357**	-.017	-.041	-.428	-.257
item9	.163	-.184	**.368**	-.418	-.490	.365
item10	.236	-.174	**.417**	**.413**	.219	-.027
item11	.144	**.235**	-.036	.155	.010	.230
item12	**.373**	-.104	.007	.238	-.281	-.368
item13	**.343**	-.022	-.123	-.079	.124	.048
item14	.164	**.231**	.019	-.386	-.130	.090
item15	-.009	.152	**.438**	-.193	-.098	-.241
item16	**.270**	.110	.228	.102	-.054	.089
item17	.166	**.303**	.026	.285	-.053	.289
item18	.045	.472	**.396**	-.008	**.479**	-.357
item19	-.571	.203	**.312**	-.324	-.246	.212

item20	-.037	**.340**	-.344	.258	.238	-.229
item21	**.444**	.047	.284	-.169	.281	.058
item22	**.313**	.040	-.054	-.101	-.222	-.090
item23	.277	**.281**	-.268	-.082	-.388	-.089
item24	.282	-.141	**.373**	.357	.181	.107
item25	**.464**	.325	-.166	-.029	-.010	-.058
item26	.059	**.342**	-.281	-.568	.144	.450
item27	-.297	.477	**.350**	.137	-.282	**.361**
item28	-.157	.176	**.301**	.288	.522	-.189
item29	-.419	**.341**	.059	.302	.168	.617
item30	**.325**	-.078	.207	-.218	.076	.162

It reveals in table 7 that each item has obtained higher loadings on the component for which it has been structured, confirming the validity of each item incorporated in the tool.

6. RELIABILITY

The reliability coefficient of the tool has been established by test and retest method. The computed reliability coefficient *0.697*shows that the tool is highly reliable.

Final form and Dimension wise Item Categorization

The items meant for different dimensions of the final tool are furnished in   table 8.

Table 8: Items of the Sociability Scale – Dimension wise

Dimensions	Statements
Trust and belonging	1, 4, 7, 12, 13, 16, 21, 22, 25, 30
Sense of community	2, 5, 8, 11, 14, 17, 20, 23, 26, 29
Good working relationship	3, 6, 9, 10, 15, 18, 19, 24, 27, 28

SCORING

All the thirty items are positive in nature. Therefore, the scoring of each item is to be followed as four for strongly agree, three for agree, two for disagree, and one for strongly disagree.

FINAL FORM OF THE TOOL

Kindly go through each one of the thirty statements given carefully and give your response under any one of the four responses strongly agree, agree, disagree, and strongly disagree by putting a tick mark (√). Kindly answer all the statements without fail.

S.N	Statement	Strongly Agree	Agree	Disagree	Strongly Disagree
1	All those serving with me in the institution are trustworthy.				
2	Our institution functions asa social community.				
3	No one of my colleagues will come to the institution late.				

4	I discuss freely all my personal problems with my colleagues.				
5	As every community is identified by its leader our institution is known by our head.				
6	When the bell strikes for the commencement of classes my colleagues will be there in the class.				
7	Whenever I am affected by sickness, somehow my colleagues get the information and come forward to help me on their own.				
8	All the members of the staff of our institution work with the same thinking and feeling to carry out the functions of the institution.				
9	Our students come to school without any delay.				
10	My colleagues help all the students in the class to secure good marks in the subjects they teach.				
11	As in community in our institution also each one of the students is taken care of individually.				
12	Whenever I am in utter confusion, my colleagues are by my side for help.				
13	Whenever my family celebrates any function at home the participation of my colleagues make the function greatly enjoyable.				
14	Along with education our students experience the duties and responsibilities of the community.				
15	My colleagues pay special attention to slow learners on their own without any instruction from the head.				
16	At times of difficulties at home the people who come forward first for assistance are my friends.				
17	Our students are proud enough to say that they belong to our institution.				
18	Each one of us will know the strength and weaknesses of our students.				
19	Only in unavoidable circumstances we avail leave.				
20	Our head of the institution and the teachers are very much interested in making every scheme of activity beneficial to each and every student.				
21	In the annual work schedule, if I come across some difficulty, some of my colleagues extend their help to me by sacrificing their comfort.				
22	Though there are different categories of workers serving in our institution we maintain good relationship with all of them irrespective of their cadre.				
23	The teacher- student relationship in our institution is like the relationship between the child and the parent bound by love and sacrifice.				
24	Whenever a number of teachers happen to take leave, other teachers come forward to manage their classes.				
25	My children are intimate with the children of my colleagues as brothers and sisters.				

26	Students who violate the norms of the institution are inducted in suitable programmes for correcting their behaviour.				
27	The head of the institution makes all efforts to help teachers get the benefits due for them from the Government or from the management.				
28	Our institution functions smoothly without any disturbances from the side of the students or from teachers.				
29	Our students get amble training for developing values necessary for serving the community for its welfare and development.				
30	Our institution helps us to build up trust and relationship among ourselves.				

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