



**DLSU**  
**RESEARCH CONGRESS**  
Towards Industry 4.0  
Knowledge Building

**2019**

Presented at the DLSU Research Congress 2019  
De La Salle University, Manila, Philippines  
June 19 to 21, 2019

## Relationship Competency Scale (RCS) Using the Social Emotional Learning Theory- an Exploratory Factor Analysis

Chona T. Chin

De La Salle University, Manila, Philippines  
chona.chin@dlsu.edu.ph

**Abstract:** This endeavor developed a tool that measures the relationship competency of college students based on the Social Emotional Theory (SEL). The items gathered were from the extensive reviews of related literature on the four sub-competencies of relationship skills of SEL such as: communication, social engagement, relationship-building and teamwork. These items were examined carefully by the expert validators resulting to 40 items. This 4-factor modeled instrument were administered to the 680 college students (**N=680**) wherein **345** were female and **335** were male with a mean age of **18** years old. The Exploratory Factor Analysis (**EFA**) yielded a new 7-factor model with 36 accepted items. However, due to the limited items in the new 3 models only the **4 original factors** were considered. The reliability of the items was established through Cronbach's Alpha with a consistency value of **.89** for teamwork, **.88** for social engagement, **.82** for relationship-building, and **.72** for communication. This tool can be of help in gauging the relationship skills of the college students leading to the proper design in employing college counseling programs in the future.

**Key Words:** Social Learning Theory; relationship skills; competency scale

### 1. INTRODUCTION

It is a common knowledge that technical and intellectual skills alone are not adequate and could not guarantee success. Other important factors that ensures success are social intelligence or the ability of knowing how to get along with people well, managing conflicts and maintaining good stable relationships at the same time displaying a positive attitude (Goleman, 2015 & Newman 2006 cited in Chin, 2018). Connely (2017) also added that to effectively lead change or manage personal change, one has to allow others to connect in ways that help them feel understood and supported and that

managing relationships is an essential emotional intelligence skills. This idea was supported by The Center for Creative Relationship (2018) wherein they conducted a study from more than 400,000 people in 7,500 companies. They reported that at least 70 percent of the bosses reported that relationship skills are critical for leadership success aside from being resourceful, decisive and being able to manage change. Gonzalez (2003-2019) also narrated that there have been studies shown indicating that having close relationships with others boosts our level of happiness, satisfaction with life, and emotional and physical health. With these findings one cannot deny the huge importance of relationship



Presented at the DLSU Research Congress 2019  
De La Salle University, Manila, Philippines  
June 19 to 21, 2019

skills. However, at present there is a lack of standardized measures that specifically assess these skills (Halle and Darling-Churchill, 2016 cited in Chin, 2018). Hence, this research aims to answer this concern using the Social and Emotional Learning Theory (SEL). SEL has promising reviews which cited its importance and contribution in understanding the behavior of students as well as in promoting their academic success and increasing positive behavior as found in the works of Dusenbury & Weissberg (2017); Haywoode (2015); Durlak, & Weissberg, et al., (2011) and Hawkins (1999) also cited in Chin (2018). They disclosed that SEL programs resulted essential helpful effects on targeted social-emotional competencies and attitudes about self, others, and school. SEL also enhanced not only on students' behavioral adjustment in the form of increased pro-social behaviors and reduced conduct and internalizing problems, but also improved academic performance on achievement tests and grades. Nevertheless, despite of the increasing programs and good reviews of SEL, literature also showed that there seemed to be lack of adequate measurement in the social and emotional domain specifically in the social and relationship components in the local setting. Schonert-Reichl et. al (2009) recommended that there is a need for a broad review of present measures and a creation of a compendium of assessment tools that measure the various dimensions of children's social and emotional health. With these concerns on SEL and the need to have a standardized tool measuring on relationship domain, the author took the advantage to develop an instrument based on the SEL theory that will assess college students' relationship skills. This research therefore sought to answer the following: 1.) *Are the theoretically identified sub-competencies of relationship skills in Social Emotional Learning such as communication, community engagement, relationship building and teamwork* empirically applicable in local setting? 2.) *Is the instrument being developed considered as reliable?*

This tool named Relationship Competency Scale (RCS) as developed can be of used in assessing the level of relationship skills of Filipino college students which results can be a basis in coming up with an appropriate design of college counseling intervention focusing on relationship competencies' programs in the future.

## 2. METHODOLOGY

This research utilized Hinkin's et al. (1997) steps in developing a reliable and valid assessment scale. The first five steps of the process were employed in the initial validation phase such as: item generation, content adequacy assessment, questionnaire administration, factor analysis and internal consistency assessment. Forty items (40) were initially generated based on an extensive review of literature with 10 items per sub-construct based on the four sub-components of relationships skills in SEL: 1) *communication* as the ability of using verbal and non-verbal skills to express oneself and promote positive and effective exchanges with others; 2) *social-engagement* refer to one's participation in the activities of a social group or social setting 3) *relationship-building* a means of establishing and maintaining healthy and rewarding connections with individuals and groups; and 4) *teamwork* focuses on forming a cohesive, high-functioning group that works together effectively toward shared goals.

The consistency of the items was determined through the consensus of five (5) experts in the fields of Psychology, Counseling and Educational Measurement. In this process, the experts were presented with the definitions of the concepts and were to determine if the items are to be accepted, rejected or needed revisions. For the questionnaire administration, upon securing the approval and clearance from the administration, the items were administered to 680 college students utilizing the google online form. This is needed to determine the scale of the items and to examine how well the items confirmed expectations regarding its psychometric properties. For factor analysis, the Statistical Package for Social Sciences (SPSS) was utilized in analyzing and exploring the items and to reduce the set of items, thus cleaning out and removing unnecessary items. And to check the internal consistency and the reliability of the items, the Cronbach Alpha was also computed. It tells how well the items measure the same construct (Price and Mueller, 1986 cited in Hinkins 1997).



### 3. RESULTS AND DISCUSSION

The tool Relationship Competency Scale (RCS) was created and its initial validation phase was through the experts who have backgrounds in Counseling, Psychology and Educational Measurement. In order to validate the tool further, the Exploratory Factor Analysis (EFA) was utilized with the aid of the Statistical Package for Social Sciences Software (SPSS). EFA procedure was used in order to identify the underlying dimensions of a domain of functioning as assessed by a particular measuring tool (Floyd & Widaman, 1995). Employing first the Principal Component Method of factor extraction and promax rotation, seven factors were loaded from the original 4-factor modeled tool with 15.365 as the highest eigenvalue and 1.062 as the lowest in eigenvalue. However, since the additional 3 factors has limited items with only two items in each factor and some double loaded with other factors, the three new additional factors were not considered as reliable or accepted in the tool. This is because researchers have suggested varying numbers of item per factor and usually it is ranging from three to five items per factors (MacCallum et al., 2004). Thus, only the original four factors were retained. In order to determine the significant loading coefficient of the items on the 4 factors, a factor loading of  $>.40$  was set, which is considered as a conventional cut-off in terms of the acceptance threshold of the items (Matzunaga, 2010).

As checked, out of the 10 items on the sub-construct *teamwork* in the original instrument, 9 items loaded together in Factor 1. It can be observed that all of these items in Factor 1 were all about items under *teamwork*. The *teamwork* domain has the highest eigenvalue of 15.365. This only shows that in local setting, relationship skills are highly attributed to teamwork. Weikart (2019) from the Center for Youth Program Quality focusing on SEL practices defines teamwork “as more on forming a cohesive, high-functioning group that works together effectively toward shared goals.” This phenomenon is evident in the old Filipino culture of “*bayanihan*” or teamwork which literally means “*being in a bayan*”, referring to the spirit of communal assistance in which the members of a community work together (English Oxford Dictionary, 2019). The *Bayanihan* tradition is one of the oldest Filipino culture and tradition and is a core essence of the Filipino culture.

In history, it is the helping out one’s neighbor as a community, and doing a task together, thus lessening the workload and making the job easier. It is best exhibited when people wish to move locations in the rural area wherein the traditional Filipino house, ‘*bahay-kubo*’, can be moved using wooden poles which are carried from the old place to the new one. This requires a group of people to lift and carry the house on their shoulders. Afterwards, there will be a small gathering as a form of celebration and socialization (Kevin, n.d.; everythingfilipino.com). It is remarkable to know that this particular attribute still strongly thriving until today.

For factor 2, 8 items out of 10 items on the category of *social engagement* loaded significantly, thus factor 2 is labeled as *social engagement*. Avison et. al (2007) considered social engagement as the extent to which an individual participates in a broad range of social roles and relationships. In SEL social engagement is closely related to cooperation and offering help when needed (CASEL, 2019 para.5). It is observed that social engagement concept is closely connected to community engagement. Community engagement is related to outreaches and reaching out the marginalized as it is an opportunity for all members of the Lasallian community to contribute to providing solutions to the most pressing problems in the country and the Church, such as poverty, social disintegration, and ecological degradation, among many (DLSU Primer, 2015-2018). Community engagement is very much similar also to the concept of *bayanihan* as it talks about “community spirit.” Hence, for a Filipino culture the measure of relationship skills is also parallel to being, serving, engaging, cooperating and helping an individual, group or community.

For factor 3, 8 out of 10 items loaded significantly under the sub-construct *relationship building*. However, since a cross-loading is seen in two items, these two items will not be considered, thus only the 6 items are retained. SEL viewed relationship building as a means of establishing and maintaining healthy and rewarding connections with individuals and groups (SEL Core Competencies as stated CASEL, 2004 cited by Russell and Hutzler, 2007). Relationship building can be seen in a form of “*pakikisama*” which is a common Filipino trait. Saito (2010) refers “*pakikisama*” to an interpersonal relationship where people are friendly with each other and is a typical personality trait of the Filipino people. It is expressed in their private lives, public workplaces, and relationships with neighbors. Jocano



(2001, cited in Saito 2010) stated that to be a good Filipino, one must see to it that he does not hurt other people’s feelings; he is a good member of his family or of his *barkada* (peers); and he maintains good relationships with most, if not all, people around him. Also, it is the willingness to be one with the group in its opinions and decisions, to conform to group standards and expectations, to put oneself in the others place, to concede to the wishes of others, to extend help in times of need and sympathy in times of grief. Thus, the SEL sub-construct relationship building is also very much applicable in local setting.

For factor 4, 6 items of the original instrument which has 10 items under *communication* loaded accordingly. However, since two items cross-loaded with other items with a different factor therefore it is needed to be removed. Only 4 items are being retained in factor 4. Factor 4 items comprised of items on “communication,” which is for SEL another very important factor in relationship skills. SEL explains “communication” as the ability of using verbal and non-verbal skills to express oneself and promote positive and effective exchanges with others. (SEL Core Competencies as stated CASEL, 2004 cited by Russell and Hutzler, 2007). It can be observed that communication only comes fourth in rank in terms of identifying the factors in relationship skills of a Filipino, next only to teamwork (highest), social-engagement and relationship building. According to Cultural Atlas (2019) Filipinos often communicate indirectly in order to prevent a loss of face and evoking *hiya* (*shame*) on either side of an exchange. They tend to avoid interrupting others and are more attentive to posture, expression and tone of voice to draw meaning. Speech is often ambiguous and Filipinos may speak in the passive voice rather than the active to avoid being perceived as speaking harshly. To find the underlying meaning of the communication, it is common to check for clarification several times. This idea is being supported by the items that significantly loaded in factor 4 since most of the items have the context of being polite, respectful, humble and passive. This could be the reason why communication in Filipino culture is not the huge factor in determining the relationship skills of a Filipino.

The previous findings would imply how a certain Filipino college students define the concept of relationship skills. As seen, teamwork is showed to have the huge eigenvalue, which means that in assessing the relationship skills of a Filipino, teamwork plays the biggest and major role. Filipino

traits and culture therefore plays a major role in identifying these factors. This new form of the instrument which intends to assess the relationship skills of college students with its original 4-modeled factor comprising of 27 items which measures the sub-competencies: teamwork, social engagement, relationship building, and communication can be of used in the implementation of college counseling programs in the future. Table 1 shows the factor loadings of the items.

Table 1 Factor loadings of the accepted items

Items	F1	F2	F3	F4
36	.972			
35	.950			
39	.940			
38	.793			
40	.785			
32	.701			
34	.647			
37	.528			
31	.485			
14		.957		
13		.891		
12		.851		
17		.766		
15		.612		
16		.576		
10		.546		
11		.449		
30			.879	
25			.857	
21			.827	
22			.719	
29			.557	
24			.409	
6				.777
3				.754
8				.651
7				.564



In order to check the internal consistency and the reliability of the items in each factor, the Cronbach Alpha was computed. Cronbach's alpha gives a simple way to measure whether or not a score is reliable as it is used under the assumption that we have multiple items measuring the same underlying construct (Complete Dissertation, 2018). It tells how well the items measure the same construct. Table 2 shows the internal consistency of the items.

Table 2 Descriptive Indices of the 4 Factors

Factor	No. Items	Cronbach Alpha	Mean
1	9	.89	5.18
2	8	.88	4.59
3	6	.82	4.65
4	4	.72	4.84

As seen above, the internal consistency of the items in each factor was established and found to be sufficiently reliable as shown by their Cronbach alpha coefficients. The table above indicated that the items in each factor have high internal consistency and this shows how closely related this set of items in a group since the Cronbach Alpha Score ranges between .89 as the highest and .72 as the lowest. This means that the internal consistency and reliability of the items are interpreted as "good" and "acceptable" respectively (Statistics How to, 2019).

#### 4. CONCLUSIONS

This endeavor aimed to determine if the Social and Emotional Learning Theory framework and its definition of relationship skills with its sub-competencies: communication, social engagement, relationship-building and teamwork are applicable to the local setting and if the tool being developed that measure relationship skills of college students is valid and reliable. Results showed that in Filipino context, the SEL framework on relationship skills is applicable. The result of the Cronbach Alpha also indicated that the tool being developed is indeed

valid and reliable. It is also noticeable that "teamwork" which is similar to the Filipino concept of "bayanihan" showed to have the highest element which means that it plays the biggest role in determining the relationship skills of a Filipino. Furthermore, the sub-construct "communication" is seen to be of minor importance in determining the relationship skills of a Filipino college student. Related literature revealed that this is due to the distinct Filipino traits and characteristics since Filipinos have a communal spirit and are known to have an indirect way of communicating wherein they tend to be respectful and polite in expressing themselves. The results of this research have implications particularly in assessing the level of the relationship skills of Filipino College students so that appropriate programs on relationship will be designed and implemented. It is recommended that in order to examine further the validity and reliability of the items, future studies can be done by administering the tool to other populations. In order also to determine the applicability of the instrument in the local setting, a confirmatory factor analysis (CFA) is also being recommended. Replication of the tool and repeating the scale testing process with the new sets of data is also ideal for the strong validity and reliability of the tool.

#### 5. ACKNOWLEDGMENTS

This research was supported by the Office of Counseling and Career Services (OCCS) of De La Salle University, Manila. No portion of this article can be reproduced or utilized in any form or by any means without the written permission from OCCS

#### 6. REFERENCES

Avison, W. Mcleod J., & Pescosolido, B. (2007). *Mental Health, Social Mirror*. Springer. P.333 ISBN 978-0-387-36319-6 retrieved January 2019.  
 CASEL (2019) <https://casel.org/core-> retrieved January 2019  
 Center for Creative Relationships (2018). *Why Your Relationship Skills Help Distinguish You*. <https://www.ccl.org/multimedia/podcast/relationship-skills-in-demand/> retrieved January 2019.



**DLSU**  
**RESEARCH CONGRESS**  
Towards Industry 4.0  
Knowledge Building

**2019**

Presented at the DLSU Research Congress 2019  
De La Salle University, Manila, Philippines  
June 19 to 21, 2019

- Chin, C. (2018) Item Development of Social Awareness and Relationship Skills of College Student-An Initial Validation. *The Guidance Journal*. Vol.XLV No. 2 p. 106-113.
- Chin, C. (2018) Exploratory Factor Analysis of Social Awareness Competency Scale (SACS) Using the Social and Emotional Learning Theory. *The DLSU Research Congress 2018* Vol.6. <https://www.dlsu.edu.ph/wpcontent/uploads/pdf/conferences/research-congress-proceedings/2018/li-04.pdf> retrieved January 2019.
- Complete Dissertation (2018) *Statistics Solutions. Cronbach Alpha* <https://www.statisticssolutions.com/cronbachs-alpha/> retrieved January 2019
- Connelly, M. (2008/2017) Relationship management <http://www.change-management-coach.com/relationship-management.html> retrieved June 2018
- Cultural Atlas (2019) Filipino Culture <https://culturalatlas.sbs.com.au/filipinoculture/filipino-culture-communication> retrieved January 2019.
- De La Salle University Student Handbook (2015-2018) Vision-Mission p.ix
- Dusenbury, L. & Weissberg, R.(2017) *State Efforts to Promote Social and Emotional Learning in Students of the Collaborative for Academic, Social, and Emotional Learning* <https://www.casel.org/wpcontent/uploads/2017/01> retrieved Jun 2017
- English Oxford Living Dictionaries (2019) *Bayanihan*. <https://oxforddictionaries.com/definition/bayanihan> retrieved January 2019
- Gonzalez, K. (2003-2019). *Relationship Building Skills* <https://study.com/academy/lesson/relationship-building-skills.html> retrieved January 2019
- Floyd, F. & Widaman, K. (1995) Factor Analysis in the Development and Refinement of Clinical Assessment Instruments. *Psychological Assessment* 1995, Vol. 7, No. 3, 286-299
- Haywoode, A. (2015) *Social-Emotional Learning in the Early Years: Preparing Students for Success* <http://eyeonearlyeducation.com/2015/04/29/social-emotional-learning-in-the-early-years-preparing-students-for-success/> retrieved June 9, 2017
- Hinkin, T.R., Tracey J., Enz, C., (1997). A review of scale development practices in the study of organizations. *Journal of Management*, 21, 967-988.
- MacCallum, R. C., Widaman, K. F., Zhang, S., & Hong, S. (1999). Sample size in factor analysis. *Psychological Methods*, 4(1), 84.
- Matzunaga, Masaki (2010). *How to Factor Analyze Your Data. Do's & Don'ts*. International Journal of Psychological Research. Retrieved file:///C:/Users/SAO/Downloads/Dialnet-HowToFactoranalyzeYourDataRight-3296455%20(1).pdf January 2018.
- Russel & Hutzler, R. (2007) Promoting Social and Emotional Learning through Service-Learning Art Projects *Karen Art Education*: 60, 3; ProQuest Central
- Saito (2010). *Pakikisama A Filipino Trait* [http://repository.ris.ac.jp/dspace/bitstream/11266/5196/1/shinrikenkiyo\\_008\\_045.pdf](http://repository.ris.ac.jp/dspace/bitstream/11266/5196/1/shinrikenkiyo_008_045.pdf) retrieved January 2019
- Schonert-Reichl, K., Lawlor, S., Oberle, E., & Thomson, K. (2009) *Identifying Indicators and Tools for Measuring Social and Emotional Healthy Living: Children Ages 5-12 Years*. [http://www.jcsh-cces.ca/upload/SEL%20Report%20FINAL\\_May26.pdf](http://www.jcsh-cces.ca/upload/SEL%20Report%20FINAL_May26.pdf) retrieved May 10, 2017
- Statistics How to (2019) *Cronbach Alpha Simple Definition, Use and Interpretation* <https://www.statisticshowto.datasciencecentral.com/cronbachs-alpha-spss/> retrieved 1/19
- Weikart, D. (2019). *Center for Program Quality* <https://www.selpractices.org/domain/teamwork> retrieved January 2019