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Exploratory Factor Analysis of Social Awareness Competency Scale (SACS) using the Social Emotional Learning Theory

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Abstract: This research developed an instrument that measures the social awareness competency of college students (**SACS**). Using the Social Emotional Theory (SEL) as framework, the study generated items based on the four sub-competencies of social awareness such as: perspective-taking, empathy, appreciating diversity and respect for others. The items developed were examined thoroughly by the five expert validators resulting to **40** items. This originally **4-factor** modeled instrument were administered to the 680 college students (**N=680**). Of the 680 participants, 345 were female and 335 were male with age ranges from 16 to 22 years old, with a mean age of 18 years old. The Exploratory Factor Analysis (**EFA**) yielded a new **6-factor model** with **36** items, wherein two new factors were added such as: identifying thoughts/feelings and non-judgmental awareness. The reliability of items was established through Cronbach's Alpha with a consistency value of **.88** for empathy, **.85** for respect for others, **.86** for appreciating-diversity, **.82** for identifying thoughts and feelings, **.84** for perspective-taking, and **.73** for non-judgmental awareness. This social awareness competency scale (**SACS**), can be a helpful tool in assessing the social awareness competence of the students leading to the suitable design in coming up with college counseling programs in the future.

Key Words: Social-Emotional Learning Theory; Social Awareness; Competency Scale

1. INTRODUCTION

It is observed that intelligence and technical skills alone does not ensure success but it is 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 are also vital for success (Goleman, 2015; Newman 2006). LaRocca (2017) cited one recent employer survey conducted by the Partnership for 21st Century Skills which demonstrates several most important skills for high school graduates entering the work force and he stated that social awareness is one of them. Social awareness contributes to better behavior and achievement in school and increased engagement with community and school resources (LaRocca,

2017). Henceforth, almost everyone knows the importance of social awareness. However, current standardized measures don't specifically assess these skills since there seem to be lack of adequate measurement in the social and emotional domain (Halle and Darling-Churchill, 2016). There is a need therefore to have a standardized measure on social and emotional domain. Among literature readings, it suggested that social awareness anchored in the social-emotional learning theory (SEL) appeared to be the most suitable framework in generating reliable items needed for this endeavor due to its several promising reviews. These positive reviews on SEL mentioned its significance and contribution in academic success and increasing positive behavior were cited by Dusenbury & Weissberg, (2017); Hywoode (2015); Durlak et. al, (2011), Durlak, &



Weissberg, et al. (2004), and Hawkins (1999). They showed that SEL programs resulted significant 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.

Nonetheless, there are limited literatures and researches in local context that document the development and progress of SEL. For that reason, the development of such measure is absent in the current use of SEL (Sandell, et al., 2012). Using the perspective of Social Learning Theory, the study therefore developed items that assess students' social awareness competency with its sub-constructs on perspective-taking, empathy, appreciating diversity and respect for others. It is necessary to come up with a standardized measure on social awareness in order for the students emotional and social self be assessed, so that proper intervention can be identified while they are still in school.

I.1. SOCIAL AND EMOTIONAL LEARNING THEORY (SEL)

In the year 1994 the term *Social-Emotional Learning* (SEL) was making its way through the organization named CASEL (Collaborative to Advance Social and Emotional Learning). This organization worked on several projects that aimed to foster healthy choices in school. Social and Emotional Learning Theory in CASEL is being defined as "the process through which children and adults acquire and effectively apply knowledge, attitudes, and skills necessary to understand and manage emotions, set and achieve goals, feel and show empathy for others, establish and maintain positive relationships, and make responsible decisions" (CASEL, 2018 para.1). CASEL's mission is to help make-evidenced based social and emotional learning (SEL) an integral part of education from preschool to high school. It focuses on five competencies such as self-awareness, self-management, social awareness, relationship-management and responsible decision-making.

Since this study focuses on social awareness competency of SEL, specifically in the Filipino context, it is necessary to take a look at their related

documents as well as review its sub-construct as explained.

1.2. SOCIAL AWARENESS

Social awareness in SEL pertains to the "ability to take the perspective of and empathize with others, including those from diverse backgrounds and cultures; ability to understand social and ethical norms for behavior and to recognize family, school, and community resources and supports. It has four subcontracts such as perspective-taking, empathy, appreciating diversity and respect for others (CASEL, 2018). Perspective-taking is the process of identifying and understanding the thoughts and feelings of others; Empathy is "learning to relate to others with acceptance, understanding, and sensitivity to their diverse perspectives and experiences"; Appreciating Diversity is "an understanding that individual and group differences complement each other and make the world more interesting"; and Respect for others in SEL believes "that others deserve to be treated with kindness and compassion and feeling motivated to contribute to the common good" (SEL Core Competencies as stated CASEL, 2004 cited by Russell and Hutzler, 2007).

1.3. Statement of the Problem

This study aimed to answer the following questions: 1.) Are the theoretically identified sub-competencies of social awareness in Social Emotional Learning (*eg. perspective-taking, empathy, appreciating-diversity and respect for others*) empirically applicable in local setting? 2.) Is the instrument being developed considered as reliable?

2. METHODOLOGY

2.1 Tool Developed

In order to answer the statement problems, this study made use of the Hinkin's (1997) model in constructing a valid and reliable test such as item generation, content adequacy assessment, administration, factor analysis and internal consistency assessment.



2.2 Participants

The participants of this research were selected using the total population sampling. 680 college students from one private university in Metro Manila were the participants of the study from various courses and different year levels. Of the 680 participants, 345 or **50.7%** were female and 335 or **49.3%** were male with age ranges from 16 to 22 years old, with a mean age range of 18 years old.

2.3 Procedure

Once the items are ready for administration, a written permission to conduct the instrument/survey was secured from the university administration that caters on research matters. The survey was conducted online using the google assessment sheet/form wherein the participants were informed about the objectives of the study.

3. RESULTS AND DISCUSSION

The instrument for Social Awareness Competency Scale (SACS) was constructed and validated initially by the experts and the final validation was established using the Exploratory Factor Analysis (EFA). This procedure meant to identify the underlying dimensions of a domain of functioning, as assessed by a particular measuring instruments (Floyd & Widaman, 1995). Employing first the Principal Component Method of factor extraction and promax rotation, six factors were loaded with 15.06 as the highest and 1.002 as the lowest in terms of eigenvalues. Hence a 6-factor solution is used with reference to the eigenvalues, scree plot and the meanings of items that converged in the factors. In order to determine the significant loading coefficient of the items on the 6 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).

Results further showed that 6 factors of social awareness emerged from the original 4 factor instrument. Two additional factors were added and their labels were based on the content and the construct of the items. These two are identifying thoughts and feelings and non-judgmental awareness. Of the 40 items, 36 were retained since

the 3 items. 33, 34, and 3 did not load significantly while item 23 has two factor loadings.

Out of the 10 items on the sub-construct *empathy* in the original instrument, 8 items loaded together in Factor 1. It can be observed that all of these items in Factor 1 were all about items under *empathy*. The *empathy* domain has the highest eigenvalue of 15.065. This only shows that in a Filipino culture, social awareness is highly attributed to empathy or *pakikiramdam*. Reyes (2015) discussed in his study that *pakikiramdam* or *empathy* along with *kagandahang-loób*, *utang-na-loób*, *pakikiramdam*, *hiya*, *lakas-ng-loób/bahala na*) are Filipino virtue ethics. In a Filipino social interaction, *empathy* or *pakikiramdam* stands for being concern for feelings and preference for indirect expression; a covert individual process by which a person tries to feel and understand the feelings and intentions of another. (Mataragnon, 1987 cited in Reyes 2015). The phenomenon of *pakikiramdam* thrives because of certain inarticulate elements in the culture such as during the Spanish colonization wherein Filipinos were not encouraged to voice out their sentiments and opinions, this tradition of receptivity to indirect communication could have continued (Maggay 2002) cited in Reyes 2015). This is the reason why *empathy* or *pakikiramdam* still showed to have a strong component in the Filipino context of social awareness.

Meanwhile, for factor 2, 6 items out of 10 items on the category of *respect for others* loaded significantly, thus factor 2 is labeled as *respect for others*. Two of the remaining 4 items which did not load in this particular factor loaded to factor 1 (*empathy*) while the other two items were considered as rejected. This factor appeared to have the second highest eigenvalue, at 2.95. Being respectful then is also a strong element in identifying the social awareness of a Filipino, since such is a common Filipino traits.

For factor 3, 10 out of 10 items loaded significantly under the sub-construct *appreciating diversity*. Since, a cross-loading is seen in item no. 23, this item will not be retained. Therefore 9 items is being labeled as *appreciating diversity* in factor 3. Throughout history, the Philippines is known to be one of the countries that hold numerous cultural diversity as there had been a number of countries that had attempted to colonize the country. Hence, various cultures have been incorporated into the Philippines' own culture (Boquet, 2017). These are



some reasons why Filipinos also considers appreciating diversity and differences as part of social competence.

For factor 4, only 4 items of the original instrument which has 10 items under *perspective-taking* loaded accordingly. These items showed the process of identifying and recognizing the thoughts and feelings of others only. It is observed that these items clearly emphasized on mainly identifying, naming and recognizing the thoughts and feelings of others and is different from understanding, relating or feeling others thoughts and feelings, which is the reason why there are two additional factors loaded to a different category. In this manner, factor 4 is labeled as *Identifying Thoughts & Feelings* which is considered as a new factor. Hall (2012) stated that identifying or labelling our emotions is a step in being able to manage them.

For factor 5, 3 items loaded which came under the *perspective-taking* in the original tool, 2 items loaded from the original items under *empathy*, and 1 item loaded from the appreciating-diversity category. All of these items strongly define the process of understanding the thoughts and feelings of others hence, factor 5 is labeled as *perspective-taking*. This factor has now a new definition wherein it pertains to understanding others thoughts and feelings, removing the word “identifying” as stated in SEL.

Lastly, for factor 6, 3 items coming from the original items of perspective-taking loaded accordingly. It is observed that these items connote to an idea of being intentional and non-judgmental to experiences. This is similar to non-judgmental awareness which is being defined as an “intentional non-judgmental awareness of the present moment” (Goldstein, 2013). In other words, it is like awareness to what others are going through without judging them but rather accepting and acknowledging where they’re coming from. Thus, factor 6 is labeled as *non-judgmental awareness*. Hence, this non-judgmental awareness trait is also an important aspect for Filipinos in cultivating social awareness.

The foregoing findings would imply how a certain Filipino college students define the concept of social awareness competency. This new form of the instrument which intends to assess the social competency of college students is now a 6-modeled factor comprising of 36 items which measures the sub-competencies: empathy, respect for others, appreciating diversity, identifying thoughts &

feelings, perspective-taking and non-judgmental awareness. Table 1 shows the factor loadings of the items.

Table 1 Factor Loadings of 36 Items

Item	F1	F2	F3	F4	F5	F6
13	.860					
16	.730					
17	.729					
12	.720					
11	.626					
35	.579					
14	.572					
32	.459					
36		.867				
37		.731				
40		.591				
38		.867				
39		.577				
31		.532				
22			.791			
25			.680			
26			.659			
21			.619			
24			.560			
27			.538			
23			.503			
28			.501			
30			.449			
8			.444			
5				.786		
6				.668		
15				.655		
18				.552		
10					.862	
9					.780	
19					.615	
7					.599	
20					.462	
29					.423	
1						.815
2						.740
4						.458



The internal consistency of each factor was established, and found to be sufficiently reliable as shown by their Cronbach alpha coefficients shown in Table 2. The table below indicated that the items in each factor have high internal consistency and this shows how closely related this set of items a group. Moreover, it is also being observed in the mean result of each factor that most of the respondents chose the positive side of the scale since in the 6 point frequency scale rating, they rated the higher scale of the items such as 5 and 4 scale which corresponds to *true of me* and *somewhat true of me* respectively

Table 2 Descriptive Indices of the 6 Factors

Factor	No. Items	Cronbach @	Mean	SD
1	8	.887	5.02	0.99
2	6	.854	5.41	0.83
3	9	.856	5.39	0.78
4	4	.822	4.95	0.93
5	6	.849	4.98	0.94
6	3	.738	5.20	0.81

4. CONCLUSIONS

This research aimed to find out if the SEL framework and their definitions of social awareness with its sub-competencies are applicable to the local setting and if the instrument being developed that measure social awareness of college students is valid and reliable. Results implied that for Filipino context, yes it is applicable, however the social awareness competency has now six (6) factors (not just four) namely: empathy (factor 1), respect for others (factor 2), appreciating diversity (factor 3), identifying thoughts/feelings (factor 4), perspective-taking (factor 5) and non-judgmental awareness (factor 6). The result of the Cronbach Alpha also connoted that the instrument being developed is indeed valid and reliable.

It is also notable that empathy or *pakikiramdam* and *respect for others* factors showed to have a high element in determining social

awareness in a Filipino setting. This is due to a distinct Filipino traits and values since Filipinos are known to be empathetic and respectful. Furthermore, results of this research have implications particularly in assessing the level of the social awareness competency of students so that an appropriate social awareness competency programs and other counseling related programs suitable for a Filipino college student will be designed and implemented. Future studies may examine further the validity and reliability of the items by administering the SACS to other populations. In order also to determine the applicability of the 6-factor modeled instrument in the local setting, a confirmatory factor analysis (CFA) is also being recommended.

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