

## VALIDITY AND RELIABILITY OF THE SOCIAL COMPARISON QUESTIONNAIRE

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**ABSTRACT:** *Social Comparison is an individual's tendency to evaluate self-competence by comparing competencies and self-opinion with other individual competencies and opinions, in order to achieve a certain superior position. In this study, the preparation of the measurement instrument was based on the distribution of data contributed by 60 active students of the Faculty of Psychology at Atma Jaya Catholic University, Jakarta, as participants. Measuring instruments are arranged based on aspects that are assumed to form Social Comparison, namely perceptions of certain standards, perceptions of comparative opinions and perceptions of competencies Garcia, Tor and Schiff, 2013; Garcia, Tor and Gonzales, 2006). Based on knowledge of test construction, 22 items were arranged. From the results of data analysis with SPSS version 20, there were 15 items that were declared valid, with a validity score greater than 0.3. These 15 items show reliability of 0.819. Thus, the Social Comparison measuring instrument is stated to meet the rules of validity and reliability, and can be used as a measure of behavior.*

**KEYWORDS:** social comparison, validity, reliability, questionnaire

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### INTRODUCTION

Social Comparison Theory was first proposed by Festinger (1954), which states that Social Comparison is a process of mutual influence and behavior comparing one's opinion with the opinions of others. In addition, what is compared is the competence of oneself with the competence of others. This social comparison behavior is carried out as a consequence of the individual's need to assess himself objectively. In a sense, this comparison is being done by referring to certain standards that have been agreed upon to become common benchmarks (Garcia, Tor & Schiff, 2013).

#### Definition of Social Comparison

According to Hogg (2000), Social Comparison is the subjective process of individuals comparing their own competence with the competences of other individuals in their

social environment. This social comparison is a process of the existence of individuals who interact with their environment, generally carried out by individuals who are in a certain time span. In individuals aged 18-24 years, this social comparison is carried out against other individuals with the aim of building and strengthening self-identity, and then evaluating themselves (Jones, 2001). Peers are used as models or targets in social comparison (Giacolini et al., 2013).

There are two things that are generally compared in social comparison, namely opinions and abilities. In social life, there is an urge to have better abilities. When individual A gets a test score of 100, then there is a strong incentive for individual B to achieve the same grade. Individual B feels more confident when he can achieve the same score with higher grades.

The Social Comparison Theory that was first put forward by Festinger was re-examined by Garcia, Tor and Schiff (2013). Social comparison is the tendency to evaluate oneself and compare one's competences with the competencies of other individuals. According to Festinger (in Evans & McConnell, 2003), there is an urge in humans to evaluate opinions and abilities, by comparing themselves with other individuals. Social comparison is also defined as an urge to achieve a superior position and maintain that superior position (Malhotra, 2010).

This social comparison is carried out in two ways, first, comparisons are made with comparisons that are better than individuals. The second way is to make comparisons with comparisons whose competency quality is "below the quality of individual competence" (Denier, H., Wolters, C. & Benzon, M., 2014). The understanding under the quality of this individual competency is that the score obtained by the individual is higher than the individual score that is used as a comparison, but has the potential to increase.

From the explanation above, it is concluded that the notion of social comparison according to Gracia, Tor and Schiff (2013) is the tendency of individuals to evaluate self-competence by comparing competences and self-opinions with competences and opinions of other individuals, in order to achieve certain superior positions.

### **Comparative Social Aspects**

It is said by Houston, McIntire and Francis (2002), that social comparison is influenced by individual and situational factors that lead to competitive behavior. Huebner (2003) adds that individuals show behavior by making comparisons with other individuals, especially when individuals are faced with competitive situations, such as passing an exam, getting a job, or a promotion.

The aspects that form the basis for measuring Social Comparison by Garcia, Tor and Gonzales (2006) are:

- a. Awareness of competitors. Competitors with certain social categories become a standard of comparison for individuals.
- b. Awareness of the quality of competitors. The quality of competitors is an important reason in social comparison. Individuals will compare the quality of themselves with the quality of competitors. Garcia, Tor and Schiff's (2013) research is an extension of research on Social Comparison that has been conducted by Garcia, Tor and Gonzales (2006). Therefore, according to Garcia, Tor and Schiff (2013) the aspects that are used as the basis for measuring social comparison are the perception of standards and the drive to achieve certain standards (superior).
  - a. Perception of standards. Perception of standards is an individual's view of certain competencies that are worth having.
  - b. The drive to reach a certain standard. Individuals have a strong passion to be first. There is a strong tendency within every individual to perform at his best.

The aspects of social comparison used in this study are based on the aspects put forward by Garcia, Tor and Gonzales (2006) and aspects of research by Garcia, Tor and Schiff (2013), namely perceptions of certain standards, perceptions of comparison of opinions and perceptions of competence.

### **Research Subjects**

The research subjects for the validity and reliability test were 60 active students at the Faculty of Psychology, Atma Jaya University, Jakarta, male and female. The research subjects were students in semesters 2, 4, 6, and 8, aged between 21-25 years. The research subjects can be categorized as the Y millennial generation (Badan Pusat Statistik, 2013; James, J., Bibb, S., & Walker, S. (2008). Selection criteria for research subjects refers to the characteristics of subjects with competitive behavior. The 60

students were determined based on considerations from Aritonang (2017). Research to test the validity and reliability of this measuring instrument was conducted in the week of May 1, 2018.

The research instrument is a measuring instrument used for research data collection, used to measure Social Comparison variables. The data in this study were obtained using a measuring instrument in the form of a questionnaire arranged based on a Likert scale with five categories, namely strongly disagree, disagree, disagree, agree, and strongly agree, with a weighting score of 1, 2, 3, 4, and 5. The questionnaire consists of statements in the form of favorable and unfavorable (Azwar, 2017). The score on each questionnaire statement is arranged as follows:

Table 1. Score Scale Statement

	Strongly Incompatible	Incompatible	Less Suitable	Agree	Strongly Agree
Item Favorable	1	2	3	4	5
Item Unfavorable	5	4	3	2	1

### **Social Comparison Questionnaire**

The social comparison measurement tool in this study was constructed by the author, based on the Social Comparison aspects (Garcia, Tor & Schiff, 2013). Measurement of social comparison is carried out with an attitude scale based on perceptual aspects of certain standards, perceptions of opinion and perceptions of competence (Francis, J., et al., 2004). Respondents are asked to provide an assessment of each item that suits themselves (Frey, B. S. & Meier, S. 2004).. For each item, there is only one answer option according to the condition of the research respondent. The selection ranges between the numeric value one (1), which is the lowest value, to the number value five (5), which is the highest value. The value of number 1 reflects the lowest weight given by the respondent; and the highest value in the form of number 5 reflects the highest weight given by the respondent. In favorable items (supporting items), the value of the number 5 is interpreted as the highest value for the respondent's choice of options that support the statement on the measuring instrument. The lowest value, the value of 1 reflects the lowest weight that the respondent gives to the statement item. The scoring is enforced and interpreted in reverse for the types of unfavorable items.

This scale consists of 22 items consisting of 12 supporting items and 10 un-supportive items. The blueprint for the Social Comparison scale is as shown in table 2 below:

Table 2. Blueprint for Social Comparison Questionnaire

Item	Aspect	Indicator	No Item		Total Item
			Fav	Unfav.	
1.	Perception Standard	against a. Importance Standard	1, 3	2, 4	4
		b. Able to Achieved	5, 7	6, 8	4
2.	Perception against Opinion	a. Positive	9, 11	10, 12	4
		b. Priority	13,15	14, 16	4
3.	Perception Competence	of a. Achievement	17,19	18	3
		b. Prestation	20,21	22	3
Total			12	10	22

### Item analysis and selection procedures

There are five stages in the item analysis and selection procedure on a psychological measurement scale, as follows:

(1) Pre Trial. At this stage, a limited trial was carried out. The research measuring instrument was given to 11 students to ascertain whether the sentences used as item statements could be understood as intended by the author.

(2) Qualitative evaluation. At this stage, the questionnaire was tested qualitatively by five experts, with the aim of obtaining items that measure what will be measured.

(3) Empirical evaluation. At this stage, an empirical item testing was carried out by distributing research measuring instruments to 60 students of the Faculty of Psychology Atma Jaya Catholic University, Jakarta, Indonesia, who had the same characteristics as the characteristics of the research subjects.

(4) Discriminatory power of items. The discriminating power of an item is the extent to which the item is able to identify the attributes being measured.

(5) Item selection. At this stage, item selection is carried out based on discriminatory power. The parameter of discrimination power is the correlation coefficient between item score and item total score. The coefficient, also known as the difference power,

shows the suitability of the item function and the scale function in revealing individual differences. The item selection criteria are based on the correlation of items with the total items, using a greater limit equal to 0.30, which is interpreted as satisfying or having high difference (Azwar, 2017). In the item difference test study, the Correlated Item Total Correlation approach was used, by correlating each item's score with the total score. Data obtained from 60 research subjects. The results of the test for the difference and reliability of the measurement scale consists of 22 items consisting of 12 favorable items and 10 unfavorable items, as shown in Table 3 below:

Table 3. Validity Test Results with 60 research subjects  
Reliability for the Social Comparison scale = 0.819

<i>Indikator-item</i>	<i>Scale mean if item deleted</i>	<i>Scale variance if item deleted</i>	<i>Corrected item-total correlation</i>	<i>Cronbach 's Alpha if Item deleted</i>	<i>Valid</i>
persan-PS1	72.73	61.758	.440	.811	valid
persan-PS2	72.70	62.383	.370	.813	valid
persan-PS3	72.63	62.812	.405	.813	valid
persan-PS4	73.57	54.216	.650	.795	valid
persan-PS5	72.72	62.274	.394	.813	valid
persan-PS6	73.80	57.214	.463	.807	valid
persan-PS7	72.57	63.097	.298	.816	valid
persan- PS8	73.62	57.190	.517	.804	valid
perbano-PS9	73.05	63.743	.132	.822	valid
perbano-PS10	72.88	62.579	.404	.813	valid
perbano-PS11	73.65	62.469	.187	.821	valid
perbano-PS12	73.12	60.613	.394	.811	valid
perbano-PS13	74.37	58.982	.361	.813	valid
perbano-PS14	73.50	57.542	.498	.805	valid
perbano-PS15	73.62	54.952	.607	.798	valid
perbano-PS16	73.15	60.842	.399	.811	valid
perbakom-PS17	73.43	60.046	.306	.816	valid
perbakom-PS18	74.72	62.410	.238	.818	valid
perbakom-PS19	73.73	57.690	.453	.808	valid
perbakom-PS20	73.12	63.596	.145	.821	valid
perbakom-PS21	73.07	60.640	.422	.810	valid
perbakom-PS22	74.12	60.376	.273	.819	valid

The author chooses items that have a high/satisfactory coefficient of difference with a minimum correlation coefficient of 0.30 (Azwar, 2017). After conducting an empirical test, the Social Comparison Scale, which originally amounted to 22 items, became 13 items, consisting of 7 favorable items and 6 unfavorable items. This activity is carried out as the fifth stage, as shown in table 4 below.

Table 4. Post-Trial Social Comparison Scale Blueprint

No	Aspect	Indicator	Aitem		Total Aitem	No		Total Aitem
			Fav	Unfav		Fav	Unfav	
1.	Perception of Standard	a. Importance of Standards	1, 3	2, 4	4	1	2, 4	3
		b. Able to achieve	5, 7	6, 8	4	15	6,14	3
2.	Perception Opini	a. Positif	9, 11	10, 12	4	3,5	8	3
		b. Priority	13,15	14, 16	4	10		1
3.	Perception Against Competence	a. Achievement	17,19,	18	3	19	12	2
		b. Prestation	20,21	22	3	13,21	16	3
Total			12	10	22	8	7	15

The constructs were tested using the second level of confirmatory factor of analysis (CFA) at the aforementioned scale (2nd Order CFA). This study was conducted to test the suitability of the statement (item) on the Social Comparison scale with the theoretical construct.

### **Distinction and Reliability Test of Measuring Instruments**

An item is said to have high/satisfactory power difference if it has a difference power coefficient above 0.30, meaning that the item is able to distinguish individuals who have attributes from individuals who do not have the attributes being measured (Azwar, 2017). The concept of reliability implies the extent to which the results of a measurement can be trusted (Anastasia, 2011). Reliability estimates for the Social

Comparison questionnaire are based on the Cronbach Alpha coefficient (Aritonang, 2017).

a. Difference Test of Social Comparison Scale

The high difference power score and the reliability score of the Social Comparison questionnaire can be seen in table 5 below:

Based on the different power test of the Social Comparison scale, the score for the difference in power for the 22 items, with a range of 0.132 to 0.650. There are 15 items with high difference power, namely 0.370 to 0.650 (greater than 0.30). From the reliability test, it was found that the Social Comparison scale had a reliability score of 0.819. The score for high difference power and the reliability score for the Social Comparison scale can be seen in Table 5 below:

Table 5. Difference Test Results for Social Comparison Scale with N = 60

No.	Indicator	Total Items Before Trial	Total Items After Trial	No High Difference	Item No. Low Difference	Aitem Skor
1	Perception of Standard	8	7	1,2,3,4 5,6,8	7	0.440;0,370;0,405 0.650;0,394;.0.463;0 .517
2	Perception toward Opinion	8	6	10,12,13, 14,15,16	9,11	0,404;0,394;0,361 0,498;0,607;0,399
3	Perception toward Competence	6	2	19,21	17,18,20,22	0,453;0,422
Total items		22	15	15	7	

Cronbach Alpha reliability coefficient of Social Comparison = 0.819

Based on the different power test on the Social Comparison scale, the score for the difference in 22 items is obtained, with a range of 0.132 to 0.650. There are 15 items with high difference power, namely 0.370 to 0.650 (greater than 0.30). From the reliability test, it was found that the Social Comparison scale had a reliability score of 0.819.

## **Research Implementation**

The research was carried out by distributing 60 questionnaires to active students of the Faculty of Psychology at the Atma Jaya University, Jakarta, first week of May, 2018. The data obtained is primary data, which was obtained from distributing questionnaires by the author assisted by two faculty students, randomly.

## **Research result**

### **1. Description of Research Respondents**

The number of active undergraduate students of the Atma Jaya Unika Faculty of Psychology is 1143 people. The total number of active students is also called the research population. At the start of the study, a number of questionnaires were distributed is 350 pieces. After the data analysis process, there are 334 data that are suitable for analysis. A total of 13 questionnaires were declared unfit for analysis, because the data were incomplete, so they could not be further processed.

The number of male students was 48 people (14%), female were 286 people (86%). There are 36 student respondents in semester 8 (11%), in semester 6 there are 88 people (26%), semester 4 there are 116 people (35%) and semester 2 there are 94 people (28%).

2. Description of Research Data

From the results of the research, an overview of the research data is obtained as follows:

Table 6. Description of Research Data

	N	Minimum	Maximum	Mean	SD
Social Comparison Scale	334	1.00	5.00	3.6678	0.51341

CFA 2nd Order confirmatory factor analysis

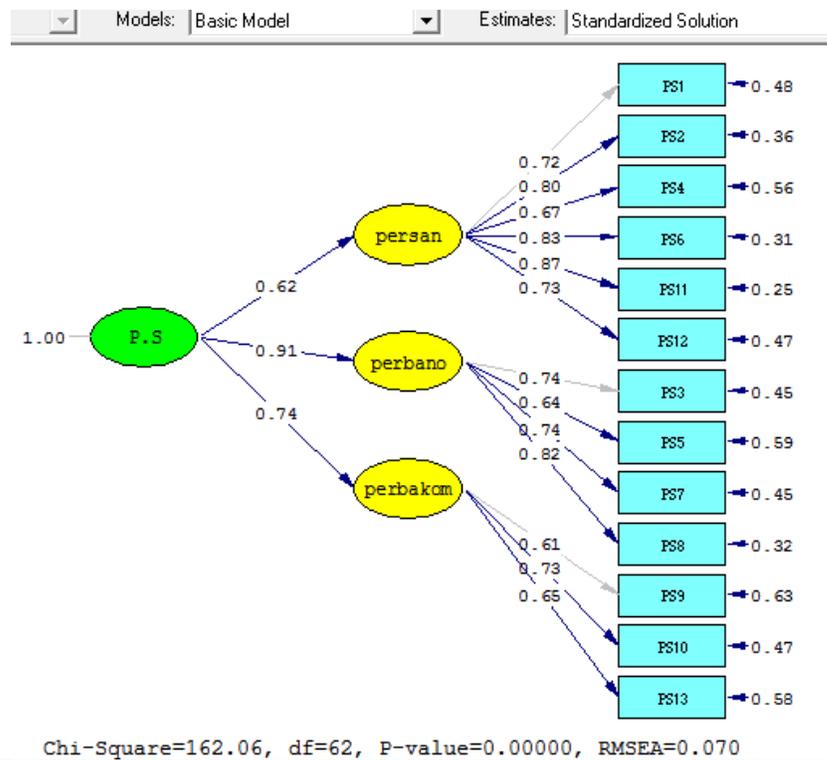


Figure 1. Social Comparison Scale Path of Standardized Solution

The test of the 2nd Order CFA analysis for the Social Comparison scale in the final results displays indicators with a loading factor value above 0.50, namely indicators

represented by thirteen items with variations in loading values above 0.50. The press indicator is the perception indicator of the standard, represented by six items, the Perbano indicator (perceptions of opinion) is represented by four items, and the performance indicator (perception of competence) is represented by three items. The suitability of variables in the results of the 2nd Order CFA test can be seen in the value of goodness of fit (GOF) in the table below:

Table 7. GOF Structural Model of Social Comparison Scale

Ukuran GOF	Kriteria Keputusan	Nilai Hitung	Keterangan
RMSEA	$\leq 0.08$	0.070	<i>Good Fit</i>
GFI	$\geq 0.90$	0.93	<i>Good Fit</i>
NFI	$\geq 0.90$	0.96	<i>Good Fit</i>
NNFI	$\geq 0.90$	0.97	<i>Good Fit</i>
CFI	$\geq 0.90$	0.98	<i>Good Fit</i>

Source: Results of data processing with LISREL 8.80

The goodness of fit of the Social Comparison structural model has met the GOF value standard, which means fit (Aritonang, 2017). The next step is to measure the reliability to determine the reliability of the items from each indicator and extract variance or to find the value of Construct Reliability (CR) and Variance Extract (VE).

The goodness of fit of the Social Comparison structural model has met the GOF value standard, which means fit (Suls, J., & Wheeler, L. (2000). The next step is to measure the reliability to determine the reliability of the items from each indicator and extract variance or to find the value of Construct Reliability (CR) and Variance Extract (VE).

The formula for calculating CR and VE is as follows:

$$\text{Construct Reliability} = \frac{(\sum \text{std loading})^2}{(\sum \text{std loading})^2 + \sum e_i}$$

$$\text{Variance Extracted} = \frac{\sum \text{std loading}^2}{\sum \text{std loading}^2 + \sum e_i}$$

The results of the Social Comparison scale reliability test can be seen in the table below:

Table 8. Reliability Test of Social Comparison Scale

<i>Indikator</i>	<i>Std Loading</i>	<i>Measurement Error</i>	<i>Std Loading<sup>2</sup></i>	<i>T-Value</i>	<i>CR</i>	<i>V E</i>
persan-PS1	0.72	0.48	0.52	11.56		
persan-PS2	0.8	0.36	0.64	10.64		
persan-PS4	0.67	0.56	0.45	11.91		
persan-PS6	0.83	0.31	0.69	10.10		
persan-PS11	0.87	0.25	0.76	9.04		
persan-PS12	0.73	0.47	0.53	11.47		
perbano-PS3	0.74	0.45	0.55	10.19	0.94	0.54
perbano PS5	0.64	0.59	0.41	11.40		
perbano-PS7	0.74	0.45	0.55	10.14		
perbano-PS8	0.82	0.32	0.67	8.25		
perbakom-PS9	0.61	0.63	0.37	10.40		
perbakom-PS10	0.73	0.47	0.53	7.96		
perbakom-PS13	0.65	0.58	0.42	9.69		
$\Sigma$	9.55	5.92	7.09			

Source: Results of data processing with LISREL 8.80

The calculation results obtained that the Construct Reliability value is 0.94 with the standard set by CR is 0.7 ( $0.94 > 0.7$ ) and the Variance Extract is 0.54 with the VE standard set is 0.5 ( $0.54 > 0.5$ ). Thus it can be concluded that the reliability of the Social Comparison construct has been fulfilled, and it can be concluded that the measurement model for the Social Comparison variable is acceptable, so that the existing model is fit with field data and then a significance test can be carried out.

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## CONCLUSIONS AND SUGGESTIONS

### Conclusion

a. More research on social comparison measurement tools needs to be done, to determine the factors related to the development of certain behaviors. Individuals who are currently studying, including in tertiary institutions, are required to be able to express themselves with their abilities and competencies. Competition is not in the sense of competing, but competition here is the ability to express talents and competencies, so that the individual is able to achieve a level of survival to his life goals.

b. It is necessary to conduct further research to examine variables that have an influence on Social Comparison such as thinking style, ability to manage emotions, and individual personality types. It is also necessary to study the role of the academic climate variable, the academic system, or the lecture curriculum.

### 2. Suggestions

It is recommended that researchers conduct further research on Social Comparison by examining the role of variables that strengthen or weaken the Social Comparison variable.

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