

## **The Influence of Group Size on Social Loafing of Collage Students in Universitas Islam Indonesia**

Muhammad Garlianka Wangsadikrama\*, Anggi Permana, Sriwahyuningsih, Ahmad Zain Fahmi, Muhammad Avicenna, Ahmad Rusydi  
Department of Pyschology, Universitas Islam Indonesia,  
Kaliurang Rd, Sleman, Yogyakarta, Indonesia  
\*Corresponding Author: 15320360@students.uui.ac.id

### **Abstract**

This study was motivated by several studies which show that social loafing has a negative impact especially for groups, which is a reduction in overall group performance. Reduced group performance can be caused by the group size. Group size can cause social loafing in groups. The aim of the study is to know whether is influence or impact of group size on social loafing student. The study applied time series design experimental method with three times measurements for two weeks. This study consisted of physical and perceptual measurements. A total of 8 participants consist two women and six men were involved in the study. The sample was purposively selected from student with criteria are active student at Universitas Islam Indonesia and aged 18 to 23 years. Instruments used experiment tool for physical measurement and social laziness scale (SLASC) for perceptual measurements at each session. The result of data analysis used the Anova Repeated Measure showed that there were differences in physical measurements ( $p = 0.027$ ,  $p < 0.05$ ) and there were no differences in perceptual measurements ( $p = 0.261$  ( $p < 0.05$ )) at each session. Based on the findings, there is an influence of group size on social loafing in physical measurements. There was a decrease in the average score for physical measurements in sessions 1 to session 3. The contribution of the effectiveness of the group size effect on social loafing was 51%.

*Keywords:* Social loafing, group size, collage students, SLASC

### **Introduction**

#### **Objectives**

The purpose of this study was to determine the effect of group size on social loafing on students.

#### **Research Question**

How does the group size influence social loafing on college students?

#### **Theory**

Social loafing is the act of letting others do work when it is part of a group responsibility (Baron & Byrne, 2004). Waldong and Mustari (Baron & Byrne, 2004) state that social loafing is common in a variety of task contexts, both cognitive and involving physical effort. The phenomenon of social loafing around us often we encounter such as group work, in making papers, percentages, or even in small things in lifting an item. All of these things can potentially lead to social laziness behavior.

The laziness of social cataracts has a negative impact, especially for groups. Brooks and A Monsons (2003) explain that one of the negative effects of social loafing is reduced group performance. Karadal & Sayg in (2015) say that social loafing has a negative impact on the effectiveness of work in groups. Supported by Duffy and Shaw (Nicholson, 2012) added that social loafing can negatively affect group satisfaction. Group productivity can also decrease due to social loafing (Teng & Luo, 2014).

The reduced performance of the group itself is due to one of them by the group size. Group size can cause social loafing in groups (Liden, Wayne, Jaworski, & Bennett, 2004). Johnson (2006) said that group size must be small enough so that the resources in the group can be utilized as a whole and are easy to coordinate. Or in other words, if the number of members to the group increases, the more likely it is that many members will not work effectively. Hackman and Vladmar (Margolis, 2011) found that the optimum group size is 4-5 people in the group. Morgan, Coates, and Rebbin (Johnson & Johnson, 2006) say that group performance decreases if the number of group members is added. Maryelen (Wildanto, 2016) suggests that the greater the group the easier it is for members to occur in social laziness.

Based on his explanation, the bag that social loafing can be influenced by group size. Group size is a function of group size. The researchers aimed to find out the effect of group size on social relationships.

## **Methodology**

### **Sample**

The selection of subjects used purposive sampling technique. The number of subjects in this study amounted to 8 people consisting of two women and six men. The subject was educated at the Islamic University of Indonesia and 18 to 23 years old. The criteria of the subject in this study have been determined to avoid extraneous variables, while the criteria include health, which includes health conditions during the study and history of illness and sleeps time, which includes sleep and sleep habits before becoming the subject of research.

### **Instrument**

The method of collecting data in this study uses the "Magic Scales tool". "Magic Scales tool" is analog scales which were tied using a mine and then tied to a pole. Then in the mine, there was a knot that indicates to be held by the subject when it will pull the mine. The process used to determine how much work is done by the subject of the current mine done individually or in groups. Experiments of this test are carried out individually and in groups. The research subjects were asked to stand grasping the mine, then the subjects would do the experiment as much as three times, once done individually, once in groups of three and once in a group of five.

Subjects instructed to withdraw the mines provided were as strong as possible. In the first experiment, subjects were asked to pull mine individually and without treatment. In the second experiment, the subject was asked to withdraw the mine with the help of two actors who only pretended to attract the mine. In the third experiment, the subject premises to attract mining four actors who only pretended to pull mine. In the second and third sessions, the actors drew 15 kg then relaxed slowly until there was no effort to withdraw the mine. The process aims to be the subject does not realize that help actor. In this process, the researcher records the effort that the subject makes in pulling the mine, either without treatment or with treatment. Then the data is entered into the available recording sheet. To support this, the researchers fed the perception scale to the subject of the scale of

1-10. This scale is given when the subject has finished withdrawing the mine in each experiment.

### **Design of Experiment**

The design of this research study time series design which done through the use of repetitive patterns (repeated measures ANOVA). In the time series design, the subject is measured three times. First, the subject is measured before being treated. After that, the subject was given treatment, the subject was measured twice as many times with the number of different actors. This time series design is a periodic measurement of one group of participants in various conditions relevant to the research.

### **Statistical Analysis**

The method of data analysis from this study uses the time series design method, where the middle values of each object are in groups, the numbers are interdependent. The analysis is assisted with SPSS version 22 for Windows. Data analysis is done by using scores derived from the subject. There were three scores from each subject that became the study sample, namely the score without treatment, one treatment score and two treatment scores.

## **Literature Review**

### **Social Loafing**

According to Baron & Byrne (2004) social loafing can be interpreted as allowing other people to do work when they are part of a group. Baron & Byrne (2004) also defines social loafing as decreasing individual motivation and effort when working together in groups if compared with when working individually. Whereas according to Karau & Williams (Kusuma, 2015), social loafing is the tendency of individuals to reduce performance in groups rather than performance when doing individually or independently. While Myers (Wildanto, 2016) states that social loafing is a tendency for individuals to spend less effort when collecting efforts to achieve a common goal compared to if done individually.

Karau and Williams (Wildanto, 2016) reveal social loafing aspects including:

- a. Lack of clear identification of the tasks of each group member
  - i. Lack of identification (supervision) of group members when an individual performs tasks and their performance is combined with others where group member contributions are unknown, members of the group will spend less effort.
- b. Lack of cohesion/bonding among group members
  - ii. Social cohesion is closely related to group assignments where people work in groups will consider individuals in groups as strangers or as friends. The lack of social cohesion in the group will lead to social relaxed when working together.
- c. Lack of responsibility for the task or the final results are given
  - iii. A person does not want to be involved in a group and only a small amount of ability is spent in his contribution will result in a lack of responsibility for the work that has been given to him.

### **Group Size**

Galanes and Adams (2007) define Group size as the size or number of members in a group. The larger the group size, the more variable it will be among members of the group.

The ideal group size according to Galanes and Adams (2007) is certainly related to several aspects including:

a. The heterogeneity aspect

Aspect heterogeneity includes abilities in different specialist fields, perspectives, and levels of contribution in groups. Heterogeneous here is not only limited to gender, member background, but rather heterogeneity in mindset, perspective, problem solving. Groups with more heterogeneous members are more effective than groups with homogeneous members. Group heterogeneity can improve the performance of most groups because of the emergence of information from a variety of different groups' perspectives (Hoevel, Knippenberg, Ginkel, & Barkema, 2012) so as to enable solutions to broader viewpoints of resolution.

b. The size of the group size

Variation in group size has both positive and negative effects. The negative impact of the larger group size is the need for longer coordination times and greater energy in aligning opinions among group members to become joint decisions. The positive impact of increasing group size is the wider viewpoint and the amount of information flow obtained from group members (Hoever, Knippenberg, Ginkel, & Barkema, 2012). Research has shown that larger groups produce more accurate answers to problems (Bray, Kerr, and Atkins 1978), are more likely to retain important information (Horowitz and Bordens 2002).

**Findings**

Table 1  
*Descriptive Statistics of Physical Measurement*

Time	Mean	Std. Deviation	N
Session 1 physical measurement	241.250	712.014	8
Session 2 physical measurement	216.250	599.851	8
Session 3 physical measurement	19.500	558.058	8

Based on Table 1, there were mean differences in the three sessions. Mean for one physical measurement of 24,1250, there was a decrease in the mean in session 2 of physical measurement which was 21,6250, and in session 3 the physical measurement decreased to 19.5. Based on the mean of the three sessions there were differences in each session.

Table 2  
*Greenhouse-Geisser Test of Within-Subjects Effect of Physical Measurement*

Source	F	Sig.	Partial Eta Squared	Effectiveness contribution
Time	7.298	0.007	0.510	51%

Based on the results of hypothesis testing used the Repeated Measure ANOVA technique (Table 2) the p-value in the Greenhouse-Geisser table shows a value of  $p < 0.05$  which is equal to 0.027. Based on these results it can be concluded that there was a significant group size toward social loafing using physical measurement. The effectiveness of the group size effect on social loafing is 51%. Based on the diagram presented in the hypothesis test, it could be seen that there was a decrease in scores in each session.

Table 3  
*Descriptive Statistics of Perception Measurement*

Time	Mean	Std. Deviation	N
Session 1 perception measurement	7.7500	0.70711	8
Session 2 perception measurement	7.8750	0.99103	8
Session 3 perception measurement	7.3750	1.68502	8

Table 4  
*Wilk's Lambda Test of Within-Subjects Effect of Perception Measurement*

Source	F	Sig.	Partial Eta Squared	Effectiveness contribution
Time	1.696	0.261	0.361	-

As a supporter, researchers conducted data analysis on the measurement of perceptions of each subject. Based on the results of hypothesis testing used the Repeated Measure ANOVA (Table 4) technique the p-value in the Greenhouse-Geisser table shows a value  $> 0.05$  which is equal to 0.261. These results indicated that there was no influence of group size on social loafing using perceptual measurements. There was one subject that experiences an increase in each measurement session, this could be caused by the awareness possessed by the subject regarding the four actors who help the subject when pulling the mine.

### Discussion

According to Baron & Byrne (2004) social loafing can be interpreted as allowing other people to do work when they are part of a group. Baron & Byrne (2004) also defines social loafing is the decline in motivation and individual effort when working together in groups compared to when working individually. While group size defined by Galanes and Adams (2007) as the size or number of members in a group. One of the factors that affect social loafing is the number of members in the group, the greater the members in the group, the greater the individual's laziness.

From the results of hypothesis testing, there is a group size effect on social loafing. Myers (Wildanto, 2016) states that social loafing is a tendency for individuals to expend less effort when collecting effort to achieve a common purpose, than if done individually. this is according to research conducted Kusumanwardani et al (2007) that social loafing (a reduced effort by individuals in groups to achieve group goals) is something that is caused by group size.

In this study there are eight subjects, each subject was asked to pull the rope connected to the tool that scale, after the subject was asked to pull the rope back along with two others, and the last subject was asked to pull the rope back with a total of an additional two people, so that on withdrawal finally the subject pulled a rope with 4 other people. There was an actor who has been appointed and in briefings to participate in this study. At every pause the measurement, the subjects were given one minute to rest, at rest, the subjects were asked questions about the perception of energy output.

This study, individuals who spend less effort can be seen from the differences in scores obtained by individuals when attracting scales individually and in groups. Measurements using Repeated Measure ANOVA values on a Greenhouse-Geisser table show a value of less than 0.05 which is equal to 0.027 which means the measurement results show differences. The mean difference, in the first measurement, means 24.12, the second mean measurement is 21.62, and the third measurement is the mean 19.50. Physical measurements of the eight subjects experienced a decrease in score on every

subject, deterioration in scores significantly visible on the subject 6, the score on the first measurement was 35 and the score on the third measurement was 19, on the subject of 8 scores on the measurement was 16 and score a third measurement was 12, at subject 5 was from score 31 to 27. The explanation above shows that all subjects expend less effort as and the addition of others. This is in line with the research conducted by Adam et al (2004) which revealed that there is an influence of group size on the performance of individuals in a group. Research conducted by Mefoh and Nwanosike (2012) revealed that there was a decrease in performance experienced by individuals when in groups compared to when in their own conditions. In addition, research conducted by Anggarwal and O'Brien (2008) also revealed that problems often occur when students are given assignments in groups, whereby a size group has an influence on increasing social loafing on members of the group.

To reinforce the results of the study, the researchers tried to compare the results of physical measurements with perceptual measurements. In this case, the intended measurement of perception is, when the subject knows or do not know the existence of actors who play a role in research. Subjects 1, 2, 3, 6, and 7 experienced a decrease in scores on physical measurements and measurement of perception. Subject 5 and 6 subjects experienced a decline in physical measurements, but the score on measurements not increase or decrease in the second and third measurements. Subject 4 decreased scores on physical measurements but has increasing scores on the measurement of perception, this is because of the subject aware of any actor who setting in this study.

The researcher also tried to confirm whether the decrease in pull scores for each subject was caused by group size or because of other factors. The results of analyzing the data with additional groups without showing treatment did not occur in scores on physical measurements and perceptual measurements. The physical measurement results show the average value at session 1 = 25.1250, 2 = 29.3750, session 3 = 34.50. While the results of the measurement of the perception of having a score of session 1 average were 5.75, session 2 has a value of 7.625 and session 3 has an average score of 8.8750.

### Conclusion

Based on the results of research and discussion that has been presented, it can be concluded that there is a group effect size of the social loafing with tool SLASC. This is because there are differences in the average value difference significant at every session of measurement.

### References

- Adams, A., & Counard, J. (2004). The effect of group size on social facilitation and social loafing as measured in productivity. *Modern Psychological Studies*, 10(1), 4.
- Aggarwal, P., & O'Brien, C. L. (2008). Social loafing on group projects: Structural antecedents and effect on student satisfaction. *Journal of Marketing Education*, 30(3), 255-264.
- Baron, R. A., & Byrne, D. (2004). Psikologi Sosial (edisi 10). Jakarta: Penerbit Erlangga.
- Bray, R. M., Kerr, N. L., & Atkin, R. S. (1978). Effects of group size, problem difficulty, and sex on group performance and member reactions. *Journal of Personality and Social Psychology*, 36(11), 1224.
- Brooks, C. M., & Ammons, J. L. (2003). Free riding in group projects and the effects of timing, frequency, and specificity of criteria in peer assessments. *Journal of Education for Business*, 78(5), 268-272.
- Galanes, G., & Adams, K. (2007). *Effective Group Discussion: Theory and Practice Twelfth Edition*. New York: McGraw-Hill.

- Hoever, I. J., Van Knippenberg, D., Van Ginkel, W. P., & Barkema, H. G. (2012). Fostering team creativity: perspective taking as key to unlocking diversity's potential. *Journal of Applied Psychology*, 97(5), 982.
- Horowitz, I. A., & Bordens, K. S. (2002). The effects of jury size, evidence complexity, and note taking on jury process and performance in a civil trial. *Journal of Applied Psychology*, 87(1), 121.
- Karadal, H., & Saygin, M. (2013). An investigation of the relationship between social loafing and organizational citizenship behavior. *Procedia-Social and Behavioral Sciences*, 99, 206-215.
- Kusuma, P. J. (2015). *Hubungan Antara Harga Diri Dengan Pemalasan Sosial* (Undergraduate thesis, Universitas Muhammadiyah Surakarta).
- Kusumawardani, D. N., Joevarian, J., Nehemiah, N., Novia, P. M., & Giri, P. W. (2013). Pengaruhgroup Size terhadap Pengambilan Keputusan Kelompok Diah. *HUMANITAS (Jurnal Psikologi Indonesia)*, 10(2), 87-100.
- Mefoh, P. C., & Nwanosike, C. L. (2012). Effects of group size and expectancy of reward on social loafing. *IFE Psychologia: An International Journal*, 20(1), 229-240.
- Liden, R. C., Wayne, S. J., Jaworski, R. A., & Bennett, N. (2004). Social loafing: A field investigation. *Journal of Management*, 30(2), 285-304.
- Nicholson, A. (2012). *Perceptions of the peer evaluation system: Relation with social loafing behaviours* (Doctoral dissertation, Concordia University).
- Teng, C. C., & Luo, Y. P. (2015). Effects of perceived social loafing, social interdependence, and group affective tone on students' group learning performance. *The Asia-Pacific Education Researcher*, 24(1), 259-269.
- Wildanto, E., & Pratisti, W. D. (2016). *Social Loafing pada Anggota Organisasi Mahasiswa Fakultas Psikologi UMS* (Undergraduate thesis, Universitas Muhammadiyah Surakarta).