The Influence of Task Difficulty Level on Academic Social Loafing

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Abstract. This study aims to determine the effect of the level of task difficulty on social loafing. The research subjects were students of class XII IPA SMAN X Makassar, totaling 120 students. The method used in this research is the experimental method, research design used in this study was a quasi-experimental 2 × 2 factorial design. The results showed that: (1) Subjects with an easy task level performed better in a particular context than subjects who were given tasks in a group context (high social loafing), with a significance value of 0.0065 ($p < 0.05$). (2) Subjects with a problematic task level performed as well in a particular context as subjects given a task in a group context (low social loafing), with a significance value of 0.265 ($p > 0.05$). This study illustrates that the higher the task difficulty level, the lower the social loafing in a group. This research is helpful for teachers as input in giving assignments to students to increase student activity further when working in groups.

Keywords: Task difficulty level · Social loafing · Student

1 Introduction

Tasks are an inseparable part of the learning process. Often teachers give assignments to students in the form of individual assignments or group assignments. In doing group assignments, some students give a maximum contribution, and some do not contribute to the group. Such an event is called social loafing (social laziness), which indicates that one of the possibilities for social loafing is the belief that other group members will not contribute to the group's efforts. Social loafing decreases individual performance when working in a group compared to when working individually. One possible explanation for social loafing in a group is the unidentified or unknown contribution of individuals [1]. In an early study related to social loafing, Ringelmann [2], in his research on a tug of war activities, found that individuals in groups expend 50% less effort than their total effort when working alone. In group clapping activities, individuals reduced their effort by 65%; in group shouting activities, 82% less effort was expended than when doing it alone.

Social loafing is not limited to physical activities but is also found in collective activities that require thinking or cognitive abilities. When individuals consider their tasks and groups unimportant, they are not motivated to increase their efforts [3]. Social

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loafing is one of the main obstacles, especially in the student learning system on a group basis and is one of the main problems in value management carried out by lecturers for group-based assessment in higher education [4]. Social loafing can be influenced by various things; student apathy and social disconnectedness can initiate the emergence of social loafing [5], and individuals with undifferentiated gender roles are also vulnerable to experiencing social loafing [6]. Even in the academic sphere at the tertiary level, social loafing has a significant relationship with a lack of control from universities, including poor planning for academic alienation and low motivation for interest and learning from students [7].

As also explained in the results of the study by Mesra et al. [28] which explains that the importance of education management is owned by a lecturer or educator in order to increase the enthusiasm of students and to achieve learning goals.

Giving tasks with a high level of difficulty can affect individual performance in doing tasks, especially group tasks, such as increasing and decreasing individual work motivation (social loafing). This can be seen in schools, where in the learning system, teachers often give assignments to students in the form of individual assignments or group assignments. Group assignments are usually tasks that have a heavier burden when compared to individual tasks. The results of research by Harkins and Petty [8] on 64 students showed that giving difficult assignments could result in changes in individual responsibilities in groups. This study also explains that social loafing can be reduced by increasing the difficulty of the task or by giving each individual a different task. In addition, individual perceptions of the difficulty or failure of group tasks play a role in causing social loafing. Individuals are more likely to do social loafing when they perceive a task as an easy or meaningless task for themselves.

The initial research was conducted at SMAN X Makassar through interviews and the distribution of open questionnaires to students. The initial research aims to find out and see the phenomenon of social loafing in school. Based on the results of the initial interview with the vice principal in the curriculum field, it was explained that it was true that there was behavior that described social loafing in the learning process at school, especially in group assignments. The school provides this group assignment method so student activity can be seen and as student capital to live in groups outside, not only at school. The teacher gives students the method of group work based on joint planning. The results of these interviews were strengthened by the distribution of open questionnaires to students at the high school, which showed that 40% only did group assignments when asked, 55% accepted all group decisions at work, 60% were reluctant to participate if many people were involved in completing assignments, and 75% actively participate if an individual assessment is carried out.

Erez and Somech [9] define social loafing as the tendency of individuals to reduce their efforts when they work collectively compared to working individually. Social loafing is the tendency of individuals who are in group situations to use only a few of their abilities when asked to participate in achieving group goals [10]. Decreased participation in groups occurs when individuals lose motivation, and the group situation is inadequate. The tendency of individuals to reduce their efforts when working in groups compared to when working alone occurs when an individual does not bear a proportionate amount of work and has not shared the benefits of the group [11]. The greater the number of

members in a group, the greater the tendency for social loafing to occur in the group [12].

Some of the symptoms that describe social loafing are as follows [13]:

1. Decreased individual motivation to engage in group activities
2. Being passive
3. Experiencing the diffusion of responsibility
4. Free riding, spending the least effort, not trying at all in the group but getting the most benefit from group work.
5. Reduced awareness of the evaluation of others

Matsumoto [14] adds that two main factors influence the emergence of social loafing, namely:

1. Reduced efficiency due to losing coordination of efforts or members' performance. For example, along with the increase in group membership, reduced coordination between group members tends to reduce efficiency, which leads to decreased activity or repetition of the same activity. The consequence is decreased productivity.
2. As the group grows, the responsibility for completing a job becomes divided among many people, and many group members become less enthusiastic because their contributions are increasingly invisible.

Task difficulty is an individual's subjective perception that is assessed by the task. The difficulty of this task can be established before and after the assignment. Task difficulty is the perception of task performance, including the complexity of a task. Task difficulty is an individual's perception because there is no information about how or when the task can affect the assessment [15]. The field of education, especially in the realm of schools, cannot be separated from the role of teachers and students. Implementing academic activities in schools is more focused on the role of students. Often teachers give assignments to students in the form of individual assignments or group assignments. Group work is a task that must be done jointly by each group member. Silberman [16] states that the group work method gives students the responsibility to study the subject matter and describe its content in a group without teacher intervention.

In group assignments, some people make a maximum contribution, and some people do not contribute to the group. Such a thing is called social loafing. Individual perceptions of the difficulty or failure of group tasks play a role in causing social loafing. Individuals are more likely to do social loafing when they perceive a task as an easy or meaningless task for themselves. Social loafing can be reduced by increasing the difficulty of the task or by giving everyone a different task [8].

With the explanation above, there is a relationship between the level of difficulty of tasks given individually and in groups to social loafing, where in the context of individuals and groups being given easy tasks, it will show high social loafing (individuals do more work than individuals in groups). And vice versa, the higher the difficulty level of the task, the lower the social loafing (individuals and individuals in the group make an equal contribution to the task).

The hypotheses in this study are:

1. There is a difference in performance in the context of the individual and the group context in giving easy tasks; namely, the individual context is better than the group context (high social loafing).
2. There is no difference in performance in individual and group contexts on the assignment of difficult tasks. Performance in the individual context is as good as in the group context (low social loafing).

2 Methods

The research design used was quasi-experimental with the type of controlled field experiment. Quasi-experimental research is conducted with controls, although not all secondary variables can be tightly controlled. A controlled field experiment is research carried out under actual conditions and manipulates independent variables. The design used in this study is a 2×2 factorial design.

In the factorial design, the researcher manipulates only one independent variable by controlling the attribute variables that affect the independent variable. In this study, the attribute variable used is task instruction, which is to see the effect of the independent variable in two different contexts (individual and group). In the first stage, the researchers listed 20 names of objects listed in the Indonesian class X textbooks. In the second stage, the researchers conducted a trial on 40 students of SMAN Y Makassar. Based on these trials, data were obtained that five objects with the most answers were included in the easy category, and five objects with few answers were included in the difficult category. The five objects that fall into the easy category are wood, rubber, tables, books, and stones. The five objects that fall into the problematic category are needles, plastic, clocks, pots, and threads.

The subjects in this study were 120 students of class XII IPA SMAN X Makassar. In this study, 120 subjects were divided into two groups: giving easy and challenging tasks. Each group consisted of 60 people, and were then given two different task instructions to see the subject's performance when given individual and group task instructions which were carried out randomly. The equipment used in this study was an assignment sheet, an envelope containing special instructions, and stationery. This study consisted of two sessions.

In the first session, 60 students were gathered in the room, and the subject's seating distance was set one space apart to avoid communication between students. The researcher gave general instructions regarding the tasks to be given and continued by giving special instructions through an envelope. The task is to write down the functions of five objects with easy categories after the trial phase. Subjects do the task for a time of 25 min. After completion, the subject collected the tasks given to the researcher and left the room. The series of implementations in this study were almost the same in each session. What makes the difference is the type of task assigned. The first session is an easy task and the second session is a difficult task after going through the trial phase.

The technique of collecting data in this research is by giving assignments to the subject, which is carried out through the experimental method. The researcher gave five

names of objects and asked the subjects to write down the uses of the objects as much as possible. The work of each individual is distinguished in 2 different conditions. Data were obtained from the number of answers the subject gave on easy tasks in the context of individuals and groups. On tasks that were difficult to do in the context of individuals and groups, each consisted of 5 names of objects and then accumulated.

Analysis of the data used is an independent sample t-test (independent-sample t-test) by testing the assumptions first.

3 Result and Discussion

3.1 Description of Research Subjects

The subjects used in this study were students of class XII IPA SMAN X Makassar, totaling 120 subjects and divided into two groups: 60 people each. Group one is a group with easy assignments. Group one is divided into two parts in giving assignments in the context of individuals and groups of 30 people each. Group two is a group with complex assignments. Group two was divided into two parts in assigning tasks in the context of individuals and groups of 30 people each (Table 1).

3.2 Normality and Homogeneity Test

The normality test in this study used the Kolmogorov-Smirnov test with the help of IBM SPSS Statistics 20 software. The normality test results for the easy task group had a significance value of 0.620 ($p > 0.05$). The normality test results indicate that the data for the easy task group is usually distributed. The normality test results for the complex task group had a significance value of 0.888 ($p > 0.05$). The normality test results showed that the data for the complex task groups were normally distributed.

The homogeneity test results for the easy task group had a significance value of 0.367 ($p > 0.05$). The homogeneity test results indicate that the data for the easy task group is homogeneous. The homogeneity test results for the complex task group had a significance value of 0.784 ($p > 0.05$). The results of the homogeneity test indicate that the data for the complex task groups are homogeneous.

Table 1. Description of Research Subject

Task	Context	N	Percentage (%)
Easy	Individual	30	25%
Easy	Group	30	25%
Complex/difficult	Individual	30	25%
Complex/difficult	Group	30	25%
Total		**120**	**100%**

3.3 Hypothesis Test Results 1

The two hypotheses were tested using the independent sample t-test (independent-sample t-test). The data tested are the results of student work answers and are carried out using IBM SPSS statistics 20 software. The results of group hypothesis testing with easy tasks show the average results in the individual context of 18.13 and the group context of 14.70 with a significance value. 0.0065 ($p < 0.05$). The hypothesis test results indicate that hypothesis Ha is accepted and H0 is rejected. There are differences in performance in the context of the individual and the group context with an easy task. The individual context is better than the group context, and there is a high level of social loafing.

In this study, the division of individual and group contexts was carried out through instruction so that individuals who received group instructions and thought that their answers would be accumulated with others showed less performance than subjects who were given individual instructions, which was also proven by statistical test results. This research follows the opinion of Latane, Williams, and Harkins [1], which shows that one possibility of social loafing occurs because of the belief that other people in the group will do or do.

Social loafing is the tendency of individuals to reduce individual efforts when working in groups compared to when working alone. Self-employed efforts occur when an individual does not bear a proportionate amount of work [11]. Research on social loafing conducted on 42 psychology students who had met the requirements for an introduction to psychology at the significant university where their research was conducted explained that social loafing occurs when group members expect each other [17].

Social loafing can be seen through the development of various tasks. The task given in the first session is easy, so individuals who work in a group context expend less effort than those who work in an individual context. This is also based on the results of statistical tests, which prove that in giving an easy task, individual performance in an individual context is better than in the group context.

Social loafing is the tendency of individuals who are in group situations to use only a few of their abilities when asked to participate in achieving group goals. The research results by Harkins and Petty [8] found that individual perceptions of the difficulty or failure of group assignments played a role in causing social loafing. Individuals are more likely to do social loafing when they perceive a task as an easy or meaningless task for themselves. The tendency to do social loafing negatively affects individual effort in group task conditions but not individual task conditions [18]. Individuals who believe they are more capable than their peers in their group will expend less effort when working collectively on easy tasks [19].

The results of this study are not in line with the research conducted by Samuel and Samuel [20], which stated that when a task has a simple or uncomplicated level of quality, group members will contribute to the work of the task because they believe that the task is still within the scope of their ability to do it. This causes the tendency for social loafing to be reduced. Udoh and Otioro [21] showed different results, finding that students who did simple tasks tended to participate more in groups.

It is evident in this study that more manageable task levels result in a tendency for social loafing in groups rather than individual performance. The form of the task can

affect the prevalence of social loafing, where social loafing occurs more often in the form of accessible, irrelevant, or tedious tasks [22].

3.4 Hypothesis Test Results 2

The results of the group hypothesis test with complex tasks showed an average result in the individual context of 12.20 and the group context of 13.27 with a significance value of 0.265 ($p > 0.05$). The hypothesis test results indicate that hypothesis H0 is accepted, and Ha is rejected. This result means that there is no difference in performance in the individual and group contexts in giving complex tasks. Performance in an individual context is as good as in a group context with a low level of social loafing.

So, on a difficult task, the subject shows performance in the individual and group contexts (low social loafing). This is also indicated by the average value of 12.20 in the individual context while 13.27 in the group context. The mean ranks show the average number with no significant difference in performance scores in the context of individuals and groups giving complex assignments.

Difficult or easy a task given to students can affect student work motivation. Task difficulty is the perception of task performance from the complexity of a task [23]. The results of Leng's research [24] regarding the motivation and difficulty of the task of 26 PKPG teachers showed that giving complex assignments could increase individual work motivation. This can be seen from the results of the pre-posttest given to 26 teachers throughout the exam. The results showed increased teacher motivation in the first and second exams, enhanced by difficult questions.

Karau and Williams [3], through the collective effort model (CEM), suggest that social loafing becomes weaker when individuals work on tasks that are considered difficult, interesting, or necessary for the individual. In addition, social loafing tends to decrease when individuals perceive their group members to perform poorly. This is following the treatment given during the research process. Individuals in the group context do not know their co-workers, so individuals can estimate that their group members are likely to work poorly. This causes social loafing on this difficult task to be low. When the individuals consider the task and group important, they are motivated to increase their efforts.

When the group is given a difficult task, the subject works hard and is responsible individually [25]. Increasing the level of difficulty and complexity of the task will reduce social loafing because individuals tend to accept that their contribution is needed in achieving group goals. Students with relevant assignments are less likely to engage in social loafing even when they know their contribution will not be identified [26]. In line with the CEM concept, the more valuable a task is perceived by individuals in the group, the less social loafing tends to be [27]. This study also explains that social loafing can be reduced by increasing the difficulty of the task or by giving everyone a different task. Thus, the increasing level of task difficulty can affect social loafing.

4 Conclusions

There is a difference in performance in the context of the individual and the context of the group in giving easy tasks. The individual context is better than the group context (high

social loafing). There is no difference in performance in individual and group contexts on the assignment of complex tasks. Performance in the individual context is as good as in the group context (low social loafing).

Based on the conclusions above, the researchers put forward some suggestions as follows:

Students are advised to instill the values of cooperation in working in groups at school and in the community. Especially at school, students are advised to participate actively and not just rely on a few friends when doing group work activities, even though the tasks given are classified as easy.

Teachers must evaluate each individual's work when given group assignments so that students are encouraged to be more active in working in study groups. In addition, teachers must create an attractive learning atmosphere for students and conduct individual assessments, especially in group assignments, so that each student is more active in participating in the learning process.

The researcher suggests that the next researcher should strictly control other variables (confound) in the context of this study. The other variables include gender, stages of group development, and students' self-uniqueness. In addition, further researchers can provide different assignments but still in the same context so that more references to assignments will be used for research.

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