European Journal of Education Studies
ISSN: 2501 - 1111
ISSN-L: 2501 - 1111
Available online at: www.oapub.org/edu

DOI: 10.46827/ejes.v12i5.5945 Volume 12 | Issue 5 | 2025

FACTORS CAUSING SOCIAL LOAFING IN ONLINE LEARNING GROUP WORK AMONG EFL STUDENTS

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Abstract:
Unlike traditional learning, where students can easily interact with others, the lack of real-life interaction and connection with teachers and peers has hindered students' active engagement in lectures, reducing their participation in many group tasks. In the long run, this can lead to the phenomenon known as social loafing, where some students exert less effort than their peers, resulting in unfair workload distribution and decreased overall performance. Recognizing the growing impact of this issue in the educational context, this study aims to investigate the key factors contributing to social loafing in online learning group work among EFL students at a university in Can Tho City. The findings from this study are expected to provide valuable pedagogical implications for both educators and administrators in designing group work effectively and developing engaging strategies to mitigate the likelihood of social loafing in online learning settings.

Keywords: social loafing, online learning, EFL students

1. Introduction

Research on the phenomenon of social loafing and free riding is extensive in laboratory, face-to-face classroom, and organisational settings. However, research on the existence of social loafing in online learning environments is relatively sparse. Distance learning issues, such as geographical separation, lack of visual cues, work schedules, and time zone differences, may either exacerbate or alleviate perceptions of social loafing and free riding in online learning groups (Piezon, 2008). Additionally, social loafing has been witnessed to negatively affect both individual and group outcomes, resulting in feelings of unfairness (Price & Harrison, 2006), decreased self-esteem (Mulvey & Klein, 1998), social disconnection (Jassawalla *et al.*, 2009), and even loss of motivation and increased apathy (Harkins & Szymanski, 1987). For that reason, by investigating how social loafing

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emerges in online learning group work, this research aims to assist individuals in identifying the likelihood of social loafing and equipping them with the knowledge and strategies to effectively address this challenge. By conducting the study, the researchers would like to seek the answer to the following question:

- What are the key factors that contribute to social loafing in online group learning environments among foreign language students?

2. Literature Review

2.1. Group Size

Among many factors causing social loafing, group size significantly influences both the outcomes and the processes a group uses to function effectively (Aggarwal, 2008). Research suggests that the extent to which an individual identifies with a group decreases as group size increases (Gerard & Hoyt, 1974; Simon & Hamilton, 1994). Different studies have proposed varying ideal group sizes, ranging from two to four members (Johnson, Johnson, & Smith, 1991) to three members (Taylor, 1976) and five to six members (Aronson *et al.*, 1978).

Social identity theory predicts a greater likelihood of social loafing in larger groups (Aggarwal *et al.*, 2008). This occurs because individuals in bigger groups may feel their contributions are insignificant or perceive themselves as less skilled at completing the task (Beatty *et al.*, 1996). Additionally, the anonymity offered by larger group sizes reduces the perceived need to contribute (Aggarwal *et al.*, 2008), as members believe their lack of effort will not be easily detected.

When responsibility is diffused among numerous group members, it becomes challenging to single out specific individuals for their lack of performance (Strom & Strom, 1999; Strong & Anderson, 1990).

2.2. Satisfaction with Other Members' Contribution

The perception of workload distribution plays a crucial role in shaping students' attitudes toward teamwork. When students feel that tasks are shared equally among group members, they are more likely to develop positive attitudes toward collaboration (Pfaff & Huddleston, 2003). Also, Brooks and Ammons (2003) found that students perceive their groups as functioning effectively when mechanisms are in place to minimize the free rider, or social loafing, problem.

However, frustration and negative attitudes toward both social loafers and group initiatives often arise when social loafers are not held accountable for their individual contributions (Aggarwal, 2008). Additionally, students may feel a lack of control over such behaviors, which can lead to a cycle of disengagement. When individuals feel burdened with an unequal share of tasks or powerless to address social loafing within the group, they may adopt similar behaviors themselves, ultimately undermining the collective progress and success of the group.

2.3. Distributive Justice

Distributive justice is the perceived "*fairness in the distribution of rewards/compensation*" when all the group members join hands to complete a group assignment (Liden, Wayne, Jaworski & Bennett, 2004). In simple terms, in education, distributive justice is applied by teachers when they assess students' performance and allocate grades, ensuring that each student is fairly recognized for their effort and contribution.

Although it shares a conceptual overlap with satisfaction with other group members' contributions, distributive justice demonstrates notable distinctions. While satisfaction with other group members' contributions emphasizes students' experiences and emotions in perceiving unfairness during online group work, distributive justice, in contrast, focuses on how teachers assess students' performance, particularly in cases where fair evaluation is lacking.

Besides, according to Azizi (2022), distributive justice comprises three principles: equality, equity, and need. The equality principle states that each student should receive the same amount of the results (Greenberg, 2011), while according to the equity principle, students' time and effort should be fairly proportioned to the outcomes they achieve (Murillo & Hidalgo, 2020). Finally, as for the need principle, the distribution of results should be based on the requirements of the students (Rasooli *et al.*, 2019). Among these principles, the equality and equity principles are the two ones that align with the concept of this study, showing that to minimize the emergence of social loafing in online academic settings, especially when students are required to work in a group, finding solutions to assess students fairly based on their contributions to the overall group work is the optimal choice.

2.4. Personality

Personality, despite being considered as an invisible factor in a group design, is the key element leading directly to the success of the teamwork, making it the prominent point for educators to pay attention to.

2.4.1. Independence

Despite a plethora of benefits granted by working in a group, many students are afraid to choose this group form. In fact, some individuals dislike working in groups due to their inherently individualistic personalities, preferring to work independently and accomplish goals on their own (Wagner, 1995). Referred to as "lone wolves", these individuals prioritize personal autonomy and are inclined to avoid group collaboration (Barr, 2005). They may lack confidence in other group members, believing their own abilities surpass those of their peers, and view group work as a disadvantage rather than a benefit (Barr, 2005). Unlike dominant members who seek to lead, lone wolves simply prefer to complete tasks independently.

This preference often leads them to focus solely on the outcomes of group work, disregarding the collaborative process. They may push for tasks to be divided among members with minimal interaction, forcing others to work on isolated parts of a project without experiencing its full complexity or richness (Aggarwal *et al.*, 2008). While this

approach may benefit the lone wolf by allowing them to maintain control and meet their personal standards, it can negatively affect other group members by limiting collaboration and shared learning opportunities (Hall *et al*., 2012).

2.4.2. Dominance

Dominance within a group can sometimes resemble independence, particularly when a leader assumes control, but the key difference lies in how this dominance manifests. As such, "*without any restrictions in project design, it can be expected that stronger personality types will naturally move into positions where they are most comfortable*" (Piezon *et al.*, 2008). A dominant group member, in other words, often takes over tasks, working independently while subtly or overtly discouraging the participation of others. Such a member may assume a leadership role, complete much of the project work themselves, and deny other group members the opportunity to contribute meaningfully (Pfaff & Huddleston, 2003). This behavior reduces the likelihood of cooperation and makes them less receptive to the opinions and inputs of others (Deeter-Schmelz *et al.*, 2002).

Moreover, according to Piezon (2008), individual contribution and dominance in online learning groups are negatively correlated. This implies that individual contributions decline as dominance views rise.

Under certain circumstances, one or more members may become more vocal and assertive than others, leaving more reserved group members feeling intimidated. These less assertive members are more likely to engage in social loafing, as they may feel that their contributions are unwelcome or that their knowledge is insufficient to add value to the group's efforts (Michaelsen, Fink, & Knight, 1997). Additionally, these dominant individuals may also manipulate other members, telling them that other members' contributions are not essential, making it reasonable for the dominant to take on the main responsibilities, thereby minimizing the overall productivity of the other members. Consequently, the strong attitudes of this dominant behavior would negatively affect the desire and even deteriorate the creativity of other members to accomplish the group work (Piezon *et al.*, 2008).

2.4.3. Openness to Experience

Openness to experience is a trait that pushes a group's dynamics in a team. According to Ülke (2006), this is the capability of a person to be willing to obtain new things and opportunities, being ready to learn new experiences regardless of unforeseen challenges they may face. Being open to experience includes several key factors, including being "*imaginative, cultured, curious, original, broad minded, intelligent, and artistically sensitive*". (Barrick & Mount, 1991). For that reason, openness to experience is a type of characteristic that is included in "*high performing groups*", rather than a group of lurkers (Satija, 2017).

In the tasks that require students to engage in without knowing what they are going to do next, the groups with the participation of people who show openness to experience generally receive more positive outcomes (Neuman *et al.*, 1999; LePine, 2003). Sharing the same concept, Thoresen *et al.* (2004) indicated that during the transitional step

of any task, being open to new challenges and considering them as learning opportunities is the key factor that leads a team to success.

However, in the same study, Thoresen *et al.* (2004) have also stated that such traits just hold an important place in kinds of tasks that require the participants to be ready to adapt to new experiences. In many other circumstances, when the stage of the process is less engaging, this characteristic may become less crucial to the overall performance of the group. In other words, according to Ülke and Bilgic (2011), there is a significant relationship between people who are open to new experiences and social loafing behaviors in the tasks that are considered boring and steady. For that reason, despite being perceived as a positive trait in group dynamics, openness to experiences can only be effective when the tasks being taken on are available for people to enhance new knowledge.

2.4.4. Agreeableness

As mentioned in Ülke and Bilgic's (2011) paper, agreeableness has been described as being "*courteous, flexible, trusting, good natured, cooperative, forgiving, soft hearted and tolerant*".

Interestingly, many investigations have shown the consistent concept that people who possess agreeableness in their personality are less likely to show social loafing behaviors in any group assignment, whether in an online or traditional learning environment. This means that groups with agreeable members are more likely to achieve thriving success rather than any other types of group members, thereby reducing the likelihood of lurking behaviors (Kichuk & Wiesner, 1997; Bolin, 2002).

3. Materials and Methods

The study looked at the foundation of descriptive design, specifically a type of descriptive survey that collects data using questionnaires and interviews. This design allows the research author to objectively describe the sources of social loafing in online settings, which is essential for balanced findings.

By using the qualitative data from the semi-structured interview, the research team can reach a promising outcome to delve into the factors contributing to social loafing behaviors among English as a Foreign Language (EFL) students at a university in Can Tho city. Meanwhile, the quantitative data from the questionnaires can be used to uncover the subjective experiences and inner thoughts of individuals, providing valuable insights into how students perceive there are lurkers – the ones that depend on others' contribution, how they manage these situations, and if there are any additional factors leading to social loafing in online environment based on their own experiences.

4. Results and Discussion

4.1. Differences in Factors Causing Social Loafing Based on Gender

To examine if there were any differences between males and females in distributing factors causing social loafing behaviors, after testing several in-depth analytical statistics, a final independent samples t-test was conducted in four elements that showed significant analytical variance, including *satisfaction with other members' contributions, dominance,* and *independence*. For the *satisfaction* factor, Levene's test indicated equal variances assumed (Sig. = 0.492), and the t-test showed a significant difference between males (M = 3.6630) and females (M = 4.0065), with the value of $p = 0.038$. Meanwhile, for the personality trait – *independence*, equal variances were assumed (Sig. = 0.575), and the difference between males (M = 3.6848) and females (M = 3.0065) was significant ($p = 0.003$). Also, for *dominance,* equal variances were assumed, with the value of Sig. = 0.659, and the t-test showed a significant difference between males (M = 2.6413) and females (M = 3.0844) with $p = 0.035$. Overall, as presented in Table 1, significant gender differences were found in all three variables, with females scoring higher in *satisfaction with other group members' contributions* and *dominance*, while males scored higher in *independence* (See Appendix 1).

Table 1: Differences between males and females in three factors

Gender		N	Mean	Std. Deviation	Std. Error Mean
Satisfaction	Male	23	3.6630	.62436	.13019
	Female	77	4.0065	.70475	.08031
Independence	Male	23	3.6848	.81260	.16944
	Female	77	3.0065	.96482	.10995
Dominance	Male	23	2.6413	.93489	.19494
	Female	77	3.0844	.85225	.09712

4.2. Correlation between Group Size, Satisfaction with Other Group Members' Contributions, Distributive Justice, Personality and Social Loafing in Online Group Work

To explore the relationship between the contributing factors and social loafing in online learning group work, the researchers conducted a correlation analysis before drawing the final conclusions.

Table 2: Correlation between group size and social loafing

		Group size	Social loafing
Group size	Pearson Correlation	1	.716**
	Sig. (2-tailed)		.000
	N	100	100
Social loafing	Pearson Correlation	.716**	1
	Sig. (2-tailed)	.000	
	N	100	100

The data presented in Table 2 shows a positive correlation between *group size* and social loafing, with $p = 0.000$ (< 0.01) and a correlation of $r = 0.716$, indicating that this factor plays a significant role in causing social loafing behaviors in online group work.

The remaining elements – *satisfaction with other group members' contributions*, *distributive justice*, and *personality* (including *independence, dominance, openness to experience,* and *agreeableness*) – showed a meaningful association with social loafing, with all p values ≤ 0.01 (See Appendix 1).

Following this, a moderate correlation was shown between *distributive justice* and social loafing ($r = 0.581$). Out of all the factors, the correlation between *satisfaction with other group members' contributions* and social loafing, as well as the correlation between *personality* and social loafing, showed a significant and very strong positive correlation, with r values being 0.707 and 0.739, respectively. This indicates that within an online learning teamwork, the types of personality would affect students' level of social loafing the most, and in a group, the more students feel dissatisfied with other members' contributions, the more likely they will show social loafing behaviors.

To gain more specific insights into the last factor – *personality* – its four subcomponents, including *independence, dominance, openness to experience,* and *agreeableness,* underwent a more detailed correlation analysis. Specifically, *agreeableness* showed the strongest positive correlation with social loafing compared to the other three traits ($r = 0.612$). A similar association, but to a lesser extent, was observed between *openness to experience* and social loafing, with an *r-value* of 0.596. The r values for *independence* and social loafing, as well as *dominance* and social loafing, were lower, at 0.318 and 0.461, respectively, suggesting a moderate correlation between these pairs (See Appendix 1).

5. Recommendations

To build on the findings of this study, future research could consider expanding the sample size by investigating the topic across multiple universities or educational contexts to obtain more objective and generalizable insights into social loafing.

Additionally, due to time constraints, many valuable aspects of social loafing, as well as its intervention strategies, may have been overlooked. Assessing its long-term impacts by examining how social loafing develops over time could provide deeper insights and contribute to sustainable improvements in students' participation.

Most importantly, since the study is conducted in an online setting and given the rapid emergence of AI-based technology in the digital era, applying AI-driven contribution tracking or developing AI-powered chatbots to assist educators in mitigating social loafing is another recommended strategy.

6. Conclusion

This study investigates the potential sources of social loafing in online learning group work among EFL students. The results, drawn from both quantitative and qualitative

data, confirm that there are four key determinants contributing to this phenomenon: *group size, satisfaction with other group members' contributions, distributive justice,* and *personality.*

Firstly, regarding *group size,* the findings indicate a strong positive relationship between the number of group members and the likelihood of free-riding. In other words, as group size increases, individual accountability tends to decrease, directly leading to heightened social loafing.

In addition, for the next factor – *satisfaction with other group members' contributions* – the findings reveal that in collaborative assignments, when students perceive unequal contributions among group members, they may subconsciously engage in social loafing as a response to perceived injustice.

Fairness in grading, known as *distributive justice,* was found to be a moderate factor contributing to social loafing, as it significantly impacts students' motivation and active participation.

Notably, concerning *personality,* the current findings show that among the four personality traits, *agreeableness* exhibited the highest correlation with social loafing, contrasting with previous studies that suggested agreeableness reduces social loafing. This suggests a new perspective – harmony does not always enhance group dynamics. In fact, high agreeableness may act as a double-edged sword, leading students to passively accept unequal contributions from others rather than addressing the issue.

Acknowledgements

During the challenging time of conducting this project, the researchers are deeply thankful for the unwavering support from their beloved ones. Without this assistance, this process would have been filled with numerous obstacles. Above all, they are deeply appreciative of the 100 participants who enthusiastically supported them to the utmost by filling out the questionnaire items regardless of their busy schedules. Besides, they are also thankful for the five interviewees who allocated their time to provide valuable insights into the topic, granting eye-opening ideas for them as researchers to continue conducting the project.

Conflict of Interest Statement

The authors declare no conflicts of interest.

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Appendices

Appendix 1: Raw Calculation

1. Independent T-Test for Genders

A. ANOVA Statistic of Variable Genders
AVp1: The total mean value for the factor of group size, **AVp2:** The total mean value for the factor of satisfaction with other members' contributions, **AVp3:** The total mean value for the factor of distributive justice, **AVp4:** The total mean value for the factor of personality **AVp4.1:** The total mean value for the factor of personality – independence, **AVp4.2:** The total mean value for the factor of personality – dominance, **AVp4.3:** The total mean value for the factor of personality – openness to experience, **AVp4.4:** The total mean value for the factor of personality – agreeableness, **AVTotal:** AVp4.1: The total mean value for all factors).

		Sum of Squares	**df**	**Mean Square**	**F**	**Sig.**
Avp1	Between Groups	.395	1	.395	.855	.357
	Within Groups	45.282	98	.462		
	Total	45.677	99			
AVp2	Between Groups	2.089	1	2.089	4.420	.038
	Within Groups	46.323	98	.473		
	Total	48.412	99			
AVp3	Between Groups	.025	1	.025	.046	.831
	Within Groups	53.623	98	.547		
	Total	53.647	99			
AVp4.1	Between Groups	8.148	1	8.148	9.364	.003
	Within Groups	85.274	98	.870		
	Total	93.422	99			
AVp4.2	Between Groups	3.477	1	3.477	4.579	.035
	Within Groups	74.430	98	.759		
	Total	77.907	99			
AVp4.3	Between Groups	.314	1	.314	.692	.408
	Within Groups	44.566	98	.455		
	Total	44.880	99			
AVp4.4	Between Groups	.208	1	.208	.534	.467
	Within Groups	38.117	98	.389		
	Total	38.324	99			
AVp4	Between Groups	.004	1	.004	.015	.903
	Within Groups	25.734	98	.263		
	Total	25.738	99			
AVTotal	Between Groups	.245	1	.245	1.232	.270
	Within Groups	19.463	98	.199		
	Total	19.707	99			

Group Statistics					
Gender		**N**	**Mean**	**Std. Deviation**	**Std. Error Mean**
AVp2	Male	23	3.6630	.62436	.13019
	Female	77	4.0065	.70475	.08031
AVp4.1	Male	23	3.6848	.81260	.16944
	Female	77	3.0065	.96482	.10995
AVp4.2	Male	23	2.6413	.93489	.19494
	Female	77	3.0844	.85225	.09712

Independent Samples Test										
		Levene's Test for Equality of Variances		**t-test for Equality of Means**						
		F	**Sig.**	**t**	**df**	**Sig. (2-tailed)**	**Mean Diff**	**Std. Error Diff**	**95% Confidence Interval of the Difference**	
									Lower	**Upper**
AVp2	Equal variances assumed	.475	.492	-2.102	98	.038	-.34345	.16337	-.66765	-.01925
	Equal variances not assumed			-2.245	40.244	.030	-.34345	.15297	-.65255	-.03435
AVp4.1	Equal variances assumed	.316	.575	3.060	98	.003	.67829	.22166	.23841	1.11816
	Equal variances not assumed			3.358	42.260	.002	.67829	.20199	.27073	1.08584
AVp4.2	Equal variances assumed	.196	.659	-2.140	98	.035	-.44311	.20709	-.85407	-.03216
	Equal variances not assumed			-2.035	33.677	.050	-.44311	.21779	-.88587	-.00035

2. Correlations

Note: Correlations *(**. Correlation is significant at the 0.01 level (2-tailed)).*

		AVp1	**AVTotal**
AVp1	Pearson Correlation	1	.716**
	Sig. (2-tailed)		.000
	N	100	100
AVTotal	Pearson Correlation	.716**	1
	Sig. (2-tailed)	.000	
	N	100	100

	AVp2	AVTotal
Pearson Correlation	1	.707**
Sig. (2-tailed)		.000
N	100	100
Pearson Correlation	.707**	1
Sig. (2-tailed)	.000	
N	100	100

		AVp3	AVTotal
AVp3	Pearson Correlation	1	.581**
	Sig. (2-tailed)		.000
	N	100	100
AVTotal	Pearson Correlation	.581**	1
	Sig. (2-tailed)	.000	
	N	100	100

		AVp4.1	AVTotal
AVp4.1	Pearson Correlation	1	.318**
	Sig. (2-tailed)		.001
	N	100	100
AVTotal	Pearson Correlation	.318**	1
	Sig. (2-tailed)	.001	
	N	100	100

		AVp4.2	AVTotal
AVp4.2	Pearson Correlation	1	.461**
	Sig. (2-tailed)		.000
	N	100	100
AVTotal	Pearson Correlation	.461**	1
	Sig. (2-tailed)	.000	
	N	100	100

		AVp4.3	AVTotal
AVp4.3	Pearson Correlation	1	.596**
	Sig. (2-tailed)		.000
	N	100	100
AVTotal	Pearson Correlation	.596**	1
	Sig. (2-tailed)	.000	
	N	100	100

		AVp4.4	AVTotal
AVp4.4	Pearson Correlation	1	.612**
	Sig. (2-tailed)		.000
	N	100	100
AVTotal	Pearson Correlation	.612**	1
	Sig. (2-tailed)	.000	
	N	100	100