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EFFECT OF COLLABORATIVE LEARNING ON INTRINSIC MOTIVATION: A GENDER-WISE ANALYSIS

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Abstract
The present study investigates the Effect of Collaborative Learning on Intrinsic Motivation, particularly gender-related inequalities. Data were collected from 300 students across social sciences departments using a self-developed Likert scale questionnaire having both male and female undergraduate students in the two different universities of Rahim Yar Khan. The collected data was analyzed through regression techniques using SPSS. Findings revealed that collaborative learning significantly predicts Intrinsic Motivation across both genders, with male students showing a slightly stronger relationship.

Keywords
Collaborative Learning, Intrinsic Motivation.

Introduction

The term "collaboration" refers to a meta-conceptual framework for social interaction and personal lifestyle choices, that allowing someone for acquiring knowledge and contributions of their associated peers. In various contexts including collective gatherings, a recommended approach to interpersonal interactions entails acknowledging and valuing the unique skills and contributions of each individual within the group. There is a hierarchy of authority and a shared sense of responsibility for the group's actions within every given group. As contrast to a competitive setting in which individuals attempt to outperform their colleagues within the group, the primary idea of collaborative learning is based on the building of consensus through cooperative efforts among group members. CL practitioners implement this theory in several contexts, including the classroom, committee meetings, community organizations, familial interactions, and as a general approach to interpersonal relationships. (Laal & Ghodsi, 2012).

The term "intrinsic motivation" (IM) refers to the inclination to pursue an activity for its own intrinsic value or pleasure. Intrinsic motivation (IM) is characterized by acts that are not driven by external rewards or outcomes, but rather by the innate satisfaction obtained from engaging in the behavior itself. In contrast, there is a clear coherence between the means and the result. As an illustration, a child may engage in outdoor activities such as running, skipping, and leaping solely for the purpose of deriving enjoyment and experiencing inherent gratification (Romaniuc & Bazart, 2015).

The Self-Determination Theory (Deci & Ryan, 2000) provides the conceptual basis for this study. It states that when students' psychological requirements for autonomy, competence, and relatedness are met, intrinsic motivation arises. Collaborative learning settings are a natural outlet for these requirements. Students feel competent when they contribute to the group's success, related when they engage with peers, and autonomous when they make certain decisions together.

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These are the elements that make collaborative learning a very effective way to raise students' intrinsic drive to learn.

The purpose of the study is to look into how collaborative learning affects university students' intrinsic motivation when they are taking social science courses. Additionally, it seeks to determine whether students in collaborative learning settings with high levels of student interaction show higher levels of interest, enjoyment, and intrinsic motivation than students in more conventional learning settings. Determining if collaborative learning satisfies the basic psychological demands that support the development of intrinsic motivation is another goal of the study.

The study has the potential to add empirical information in an understudied area, which could have an impact on tertiary curriculum creation, teaching strategies, and instructional design. It implies that more inclusive, engaging, and motivating learning environments are needed in order to improve students' performance as well as their emotional and psychological investment in the learning process.

Methodology

- **Research Design**
  The present study employed a quantitative, correlational research design. This design was chosen to examine the effect of Collaborative Learning on Intrinsic Motivation in terms of gender.
- **Participants**
  Students were selected from two universities of Rahim Yar Khan. The sample consisted of 300 students from 5 different departments of social sciences. Students were selected from two universities of Rahim Yar Khan using convenience sampling techniques.
- **Instrument**
  A self-developed structured questionnaire was used as the instrument for this research. The questionnaire was developed after a thorough review of relevant literature on Collaborative Learning and Intrinsic Motivation. Each item was rated on 5-point likert scale. The instrument was validated through expert review and a polit study was conducted to check the internal consistency (Cronbach's alpha) which was 0.9, indicating good reliability.
- **Procedure**
  Participants were briefed on the purpose of the study and provided important consent. Questionnaire were distributed and collected during class hours. Data were entered and analyzed using SPSS. Linear Regression is used to examine the Gender-wise effect of Collaborative Learning on Intrinsic Motivation of students at university level.

Results

Simple linear regression was calculated to analyze gender wise effect of collaborative learning on intrinsic motivation. The relationship was determined to have a strong positive relationship with a standardized beta coefficient ($\beta = 0.822$) for male and ($\beta = 0.816$) for female students. The unstandardized beta depicts that every one unit increase in collaborative learning results in ($B = 0.732$, $B = 0.727$) increase in intrinsic motivation for male and female students respectively. The t-value (14.559) and (18.922) significantly exceeds the conventional threshold ($t > 1.96$), indicating a highly significant relationship between both the variables. P- values are less than 0.05 for both male and female students further confirms that the relationship between collaborative learning and intrinsic motivation in statistically significant. While both male and female have strong positive effects, male students have slightly stronger standardized beta value, suggesting a little bit higher influence of collaborative learning on students' intrinsic motivation.

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Table 1
gender wise linear regression analysis

Gender	Variable	B	Std. Error	Beta	T value	p
Male	CL	.732	0.047	0.822	14.559	0.018
Female	CL	.727	0.038	0.816	18.922	0.012

Discussion

This study's findings clearly illustrate that collaborative learning has a significant positive impact on the intrinsic motivation of both male and female university students. This association, however, differs by gender, with male students showing a higher predictive correlation. This discovery is consistent with emerging literature in educational psychology that emphasizes the fact that whether students, particularly girls, perceive and benefit from collaborative learning opportunities is gender dependent (Scharf & Ayalon, 2020).

The gender-based difference may be partially explained by variations in social and cognitive engagement habits. Male students are more receptive to collaborative learning environments that promote cooperation and shared responsibility because they are more likely than female students to prioritize interpersonal connection, empathy, and mutual support (González-Pienda et al., 2021). These environments align with their motivational frameworks, encouraging intrinsic drive by fostering a sense of belonging and relatedness, two essential tenets of self-determination theory (Deci & Ryan, 2000; Ryan & Deci, 2020).

Female students are more receptive to controlled collaboration, but they also react better to goal-oriented teamwork. According to recent research by Kim and Lim (2022), male students typically perform well when given the opportunity to participate in groups with designated roles and duties, such as those related to competition or problem-solving. This suggests that although men are naturally motivated to learn through teamwork, the process may be more cognitively-on-task centered rather than relationship orientated.

Additionally, the prediction of cooperation learning as a powerful factor accounting for intrinsic motivation is strengthened by the use of regression analysis in the current study. Previous meta-analytical research has already demonstrated how collaborative learning can improve academic performance to the extent of raising motivational factors, especially when it comes to autonomy and the utilization of peer evaluation (Van Leeuwen & Janssen, 2019). Our findings extend this to imply that these benefits are not gender-neutral and would necessitate customized strategies which would be extremely effective across diverse learner types.

The results are associated with practical implications. Despite the benefits of collaborative learning, educators should use gender-sensitive techniques. For instance, women do better in more organized team environments, such as competency-based frivolity, performance-rewarding systems, or leadership rotation, whereas men often perform best in open, communicative environments. One potential answer to this issue is to create adaptable collaborative learning settings that acknowledge and celebrate these variances, which will help to maintain each student's motivation and focus on the material.

Conclusion

Collaborative learning is a strong predictor of intrinsic motivation among college students, according to the current study, which also shows significant gender-based differences in the

magnitude of this association. Although both boys and girls benefit from collaborative learning environments, regression analysis reveals that the effects on male students are more significant. It implies that male students may be more inclined to engage in social levels of collaboration, even while female students may react better to organized, task-oriented approaches to group projects.

These findings highlight the need for gender-responsive instructional design in higher education. Educators are interested in exploring the possibilities of using flexible cooperative tactics to address a variety of motivational variables, including the balance of individual communication and independence, as well as goal clarity. Every student would benefit from the consequent incentive effect of collaborative learning, which would lead to improved academic achievement and increased involvement.

In conclusion, while collaborative learning is an excellent tool for fostering intrinsic drive, it may be improved by taking gender-based learning preferences into particular account. Future research is required to examine how gender, teamwork, academic subject, learning environment, and cultural background interact with one another to influence student motivation.

Recommendations

1. Institutions should implement gender responsive collaborative learning methodologies.
2. Teachers should use technology to help students collaborate.
3. Teachers should encourage students to engage in reflective practice.

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