



PILOT STUDY ON THE EFFECTIVENESS OF ACHIEVEMENT MOTIVATION AND SELF- CONCEPT OF SECONDARY SCHOOL STUDENTS IN DEOGHAR

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Abstract

This pilot study examines the effectiveness of achievement motivation and self-concept among secondary school students in Deoghar, Jharkhand. Achievement motivation drives a student's desire to succeed, while self-concept reflects their perception of abilities and identity. The study aims to assess the levels of these constructs, explore their interrelationship, and evaluate the impact of targeted interventions designed to enhance them. A sample of 100 students from urban and rural schools was selected using stratified random sampling. Standardized tools were used to measure achievement motivation and self-concept, and a four-week intervention program was implemented to boost these attributes.

Descriptive statistics revealed that urban students initially scored higher in both achievement motivation and self-concept compared to their rural counterparts. Post-intervention, both groups showed significant improvements. Inferential analysis through paired t-tests confirmed the effectiveness of the intervention, with significant gains in achievement motivation ($t = 6.5, p < 0.01$) and self-concept ($t = 4.8, p < 0.01$). Independent t-tests highlighted disparities between urban and rural students, while Pearson correlation analysis indicated a strong positive relationship ($r = 0.75, p < 0.01$) between achievement motivation and self-concept.

The findings suggest that interventions targeting achievement motivation and self-concept are effective in fostering these psychological constructs. However, disparities between urban and rural students underscore the need for tailored strategies to address socio-economic barriers. The study concludes that enhancing achievement motivation and self-concept not only improves academic outcomes but also contributes to students' overall personal development. These results provide a foundation for broader research and offer valuable insights for educators and policymakers aiming to support students in diverse socio-economic contexts.

Keywords: Achievement motivation, self-concept, secondary school students, urban-rural disparity, intervention effectiveness.

Introduction

Achievement motivation and self-concept are pivotal psychological constructs that significantly influence students' academic performance and overall development. Achievement motivation drives a student's desire to excel, achieve goals, and attain mastery, while self-concept reflects their perception of abilities, strengths, and overall identity. This pilot study examines the effectiveness of these constructs among secondary school students in Deoghar, Jharkhand, to understand their interplay and potential impact on academic success.

Rationale of the Study

Achievement motivation and self-concept are critical psychological constructs that directly influence a student's academic performance and overall personal growth. In the rapidly evolving educational landscape, fostering these attributes is essential to prepare students for competitive and dynamic environments. However, disparities in socio-economic conditions, particularly in regions like Deoghar, Jharkhand, often hinder the development of these traits among secondary school students. Rural students, in particular, face challenges such as limited resources, inadequate guidance, and socio-cultural constraints, which can negatively impact their achievement motivation and self-concept.

This study addresses the need to understand and enhance these psychological constructs among secondary school students in Deoghar. By evaluating the current levels of achievement motivation and self-concept and implementing targeted interventions, the study aims to bridge the gap between urban and rural students. Furthermore, exploring the interrelationship between these variables can provide deeper insights into how they influence each other and contribute to academic success.

The findings of this research will not only guide educators and policymakers in designing effective strategies to enhance achievement motivation and self-concept but also contribute to equitable education practices, ensuring that students from diverse socio-economic backgrounds receive the support they need to excel academically and personally.

Objectives

1. To assess the level of achievement motivation among secondary school students.
2. To evaluate the self-concept of these students in relation to their academic and non-academic domains.
3. To explore the relationship between achievement motivation and self-concept.
4. To determine the effectiveness of interventions aimed at enhancing achievement motivation and self-concept.

Hypotheses

1. There is no significant difference in achievement motivation levels across gender.
2. Self-concept varies significantly with socio-economic status.
3. A positive correlation exists between achievement motivation and self-concept.
4. Interventions targeting achievement motivation and self-concept will show measurable improvements.

Methodology

1. **Population and Sample:** The study targets secondary school students (grades 9–10) in Deoghar. A stratified random sampling method was employed to select 100 students from both urban and rural schools, ensuring gender and socio-economic diversity.
2. **Tools Used:**
 - **Achievement Motivation Scale:** A standardized tool to measure motivation in academic settings.
 - **Self-Concept Questionnaire:** Assesses students' self-perception across various dimensions (academic, social, emotional).
 - **Intervention Module:** Designed to enhance achievement motivation and self-concept through workshops and activities.
3. **Procedure:**
 - **Phase 1:** Baseline assessment of achievement motivation and self-concept.
 - **Phase 2:** Intervention sessions conducted over four weeks, including goal-setting exercises, peer collaboration, and self-reflection.
 - **Phase 3:** Post-intervention evaluation using the same scales.

Data Analysis and Interpretations

This section of the study provides an overview of the analysis methods employed and the results obtained from the data collection. The primary aim is to examine the relationship between achievement motivation and self-concept among secondary school students in Deoghar and the effectiveness of the interventions.

1. Descriptive Statistics

Descriptive statistics were used to summarize the data and provide an overview of the students' achievement motivation and self-concept scores before and after the intervention.

- **Achievement Motivation Scores:** The mean score for achievement motivation was found to be 60 (SD = 8.5) before the intervention and 70 (SD = 7.1) after the intervention, indicating a noticeable improvement in motivation levels.
 - **Urban Students:** Mean = 65 (SD = 6.2)

- **Rural Students:** Mean = 58 (SD = 9.1)
- **Self-Concept Scores:** Before the intervention, the average self-concept score was 55 (SD = 9.3), and after the intervention, it increased to 63 (SD = 8.0), suggesting an enhancement in self-concept.
 - **Urban Students:** Mean = 62 (SD = 7.4)
 - **Rural Students:** Mean = 55 (SD = 9.6)

2. Inferential Statistics

To assess the significance of the observed changes in achievement motivation and self-concept, inferential statistics were applied.

- **Paired Sample t-test (Before and After Intervention):** A paired t-test was conducted to compare pre- and post-intervention scores for achievement motivation and self-concept.
 - **Achievement Motivation:** The t-value for achievement motivation was calculated as 6.5 ($p < 0.01$), suggesting that the intervention had a significant positive effect on achievement motivation.
 - **Self-Concept:**
The t-value for self-concept was 4.8 ($p < 0.01$), indicating that the intervention led to a statistically significant improvement in students' self-concept.
- **Independent t-test (Urban vs. Rural Students):** To assess the differences in achievement motivation and self-concept between urban and rural students, an independent t-test was performed.
 - **Achievement Motivation:** There was a statistically significant difference between urban and rural students ($t = 2.5$, $p < 0.05$). Urban students exhibited higher achievement motivation levels compared to rural students.
 - **Self-Concept:** Similarly, there was a significant difference in self-concept scores ($t = 3.0$, $p < 0.05$), with urban students reporting better self-concept than rural students.
- **Correlation Between Achievement Motivation and Self-Concept:** A Pearson correlation was performed to examine the relationship between achievement motivation and self-concept.
 - The correlation coefficient (r) between achievement motivation and self-concept was 0.75 ($p < 0.01$), indicating a strong positive correlation. This suggests that students with higher achievement motivation tend to have a more positive self-concept.

3. Interpretation of Findings

- **Achievement Motivation:** The results indicate that achievement motivation levels improved after the intervention, with a noticeable difference between urban and rural students. Urban students started with higher motivation levels, likely due to better access to resources, but both groups showed improvement post-intervention. This suggests that interventions tailored to enhance

achievement motivation are effective for students across different socio-economic backgrounds, although further targeted strategies may be needed to address the gap between urban and rural students.

- **Self-Concept:** The self-concept of students also improved significantly after the intervention. The positive change in self-concept may be attributed to the activities that helped students reflect on their strengths, set goals, and improve their academic and personal identity. Similar to achievement motivation, urban students exhibited higher self-concept scores before the intervention. However, both urban and rural students showed positive changes, indicating that the intervention positively impacted their self-perception.
- **Correlation Between Achievement Motivation and Self-Concept:** The strong positive correlation between achievement motivation and self-concept suggests that efforts to improve one of these constructs may have a beneficial impact on the other. Students who have a more positive self-concept are more likely to set high academic goals and work toward achieving them. Conversely, students with higher achievement motivation may develop a more positive self-concept as they experience success.

4. Summary of Key Findings

1. **Improvement Post-Intervention:** Both achievement motivation and self-concept improved significantly post-intervention, with achievement motivation showing greater improvement.
2. **Urban vs. Rural Disparities:** Urban students had higher achievement motivation and self-concept scores than rural students, though both groups showed improvements.
3. **Strong Correlation:** A positive correlation was found between achievement motivation and self-concept, highlighting their interdependent nature.
4. **Effectiveness of Intervention:** The intervention was effective in enhancing both achievement motivation and self-concept, though the impact varied across different student groups.

The data analysis supports the hypothesis that achievement motivation and self-concept are significantly enhanced through targeted interventions. The positive relationship between the two constructs suggests that interventions aimed at improving one may also benefit the other. Additionally, while urban students had higher initial levels of both variables, the intervention proved beneficial for students across both urban and rural settings.

These findings can inform future educational strategies and interventions, especially in addressing the disparities between urban and rural students and fostering an environment where both achievement motivation and self-concept can be developed to improve academic outcomes.

.Main Findings

This study investigated the levels of achievement motivation and self-concept among secondary school students in Deoghar, Jharkhand, and evaluated the effectiveness of a targeted intervention program. The key findings are as follows:

1. Baseline Achievement Motivation and Self-Concept

- **Achievement Motivation:** The initial analysis revealed moderate levels of achievement motivation among the sampled students. Urban students scored significantly higher (mean = 65, SD = 6.2) compared to rural students (mean = 58, SD = 9.1), indicating the influence of better resources and academic environments in urban settings.
- **Self-Concept:** The self-concept scores were also higher among urban students (mean = 62, SD = 7.4) compared to rural students (mean = 55, SD = 9.6). This disparity reflects differences in socio-economic status, access to quality education, and support systems.

2. Impact of Intervention

The intervention program, focusing on activities like goal-setting, peer collaboration, and self-reflection, was effective in enhancing both achievement motivation and self-concept:

- **Achievement Motivation:** The post-intervention mean score increased to 70 (SD = 7.1) from 60 (SD = 8.5), with a statistically significant improvement ($t = 6.5, p < 0.01$).
- **Self-Concept:** Self-concept scores also rose from a pre-intervention mean of 55 (SD = 9.3) to 63 (SD = 8.0), demonstrating a significant positive change ($t = 4.8, p < 0.01$).

3. Urban-Rural Differences

Despite overall improvements, urban students continued to outperform rural students in both constructs post-intervention. However, the gap narrowed, indicating the potential of targeted interventions in addressing socio-economic disparities.

4. Correlation Between Achievement Motivation and Self-Concept

A Pearson correlation analysis showed a strong positive relationship between achievement motivation and self-concept ($r = 0.75, p < 0.01$). This suggests that students with higher achievement motivation tend to develop a more positive self-concept, and vice versa.

5. Broader Implications

The findings highlight the effectiveness of structured interventions in enhancing students' psychological traits. The results underscore the importance of addressing socio-economic barriers and customizing strategies to cater to the specific needs of rural students.

This study demonstrates that achievement motivation and self-concept can be significantly improved through well-designed programs. These findings have important implications for educators and policymakers aiming to create equitable and supportive learning environments that nurture academic success and personal development.

Implications

The findings of this pilot study could guide educational institutions and policymakers in Deoghar to design targeted interventions that boost students' psychological traits and academic outcomes. Enhancing achievement motivation and self-concept may bridge socio-economic disparities and foster a more equitable education system.

Future Scope

The pilot study lays the foundation for a broader investigation involving a larger, more diverse sample. Future research could explore longitudinal effects and integrate additional variables such as parental support, peer influence, and teacher-student relationships.

Conclusion

This study underscores the critical role of psychological constructs in shaping secondary school students' academic trajectories. By addressing the gaps in achievement motivation and self-concept, educators can cultivate resilient and goal-oriented learners.

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