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A Comparative Study to Assess the Knowledge of Higher Secondary and Secondary Students Regarding Peer Tutoring as a Collaborative Learning Approach to Improve the Academic Performance of Low-Achieving Students in Selected Schools of Bhopal, (M.P)

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ABSTRACT

This study explored the effectiveness of peer tutoring as a collaborative learning approach to enhance the academic performance of low-achieving students, focusing on differences in knowledge and attitudes between higher secondary and secondary students in selected schools of Bhopal, Madhya Pradesh. A comparative descriptive design was used with 50 students (25 from each group) selected through convenience sampling. Data were collected using validated and reliable structured questionnaires and attitude scales, and analyzed with descriptive and inferential statistics. Findings revealed significant differences in knowledge and attitudes toward peer tutoring between the groups, highlighting its potential as an effective strategy for academic improvement. Tailored peer tutoring programs addressing the unique needs of each educational level can foster an inclusive learning environment, promoting better outcomes for low achievers.

KEY WORDS: Peer Tutoring, Knowledge, Collaborative Learning, Low Academic Achievers, Higher Secondary Students, Secondary Students, Academic Performance.

INTRODUCTION

Peer tutoring is a collaborative learning strategy proven to enhance academic performance, particularly among low achievers, while fostering critical thinking and interpersonal skills. Studies by Topping (2005) and Johnson & Johnson (2002) highlight its effectiveness, yet its potential remains underexplored in Indian schools. Understanding students' knowledge and attitudes toward peer tutoring is crucial for its success, especially among higher and senior secondary students. This study aims to assess and compare their perspectives, providing insights for designing tailored interventions to bridge academic gaps and promote inclusive learning environments.

BACKGROUND:

Peer tutoring fosters a dynamic learning environment where students actively engage in mutual learning,

enhancing both academic performance and interpersonal skills. Research consistently demonstrates its effectiveness, particularly in improving outcomes for students facing challenges in complex subjects. Despite its proven benefits, the understanding and perceptions of students at different academic levels regarding peer tutoring remain largely unexplored. Bridging this gap is essential for developing targeted, evidence-based interventions that cater to the specific needs of diverse learner groups, maximizing the potential of peer tutoring as a collaborative learning tool.

NEED OF THE STUDY

Collaborative learning strategies like peer tutoring have proven effective in improving academic performance, particularly for low achievers (Topping, 2005; Rohrbeck et al., 2003). Studies by Cohen (1986) also highlight its benefits in subjects such as mathematics and science. However, the perceptions of peer tutoring at different academic levels are underexplored. Research by Slavin (2010) and Falchikov (2001) suggests that higher secondary students need foundational support, while senior secondary students focus on application-based learning. This study seeks to explore the knowledge and attitudes of higher and senior secondary students towards peer tutoring, providing valuable insights for optimizing its impact on low achievers at different academic stages.

STATEMENT OF THE PROBLEM:

"A comparative study to assess the knowledge of higher secondary and secondary students regarding peer tutoring as a collaborative learning approach to improve the academic performance of low-achieving students in selected schools of Bhopal, (M.P)."

OBJECTIVES:

1. To assess the knowledge of higher secondary and secondary students about peer tutoring.
2. To compare the knowledge levels of higher secondary and secondary students regarding peer tutoring.
3. To identify the relationship between demographic variables and the knowledge of students about peer tutoring.

HYPOTHESIS: -

- **H1:** A significant difference exists in the knowledge of higher secondary and secondary students about peer tutoring.
- **H2:** There is a significant association between students' knowledge of peer tutoring and their demographic variables.

RESEARCH METHODOLOGY

Research approach	:	A quantitative research approach
Research design	:	A comparative descriptive research design
Setting	:	Selected schools in Bhopal, Madhya Pradesh
Population	:	Higher secondary and secondary students
Sampling Technique	:	Non probability convenience Sampling
Sample size	:	50 students (25 higher secondary, 25 secondary)

Criteria for sample selection:

Inclusion Criteria:

1. Students enrolled in higher and secondary grades.
2. Students willing to participate and provide informed consent.

Exclusion Criteria:

1. Students unavailable during data collection.
2. Students with language barriers affecting comprehension.

Tools Used:

- **Section A:** Demographic profile
- **Section B:** Structured questionnaire on knowledge about peer tutoring

Tool used: -The data collection technique was one to one interview.
Section A- Demographic Proforma
Section B- Structured question

Procedure for data collection: -

1. Permission was obtained from the selected School.
2. Participants were briefed about the study's purpose, and informed consent was obtained.
3. Structured questionnaires were administered to 25 higher secondary and 25 secondary low-achieving students. Peer tutoring sessions focused on challenging subjects were conducted over a three-week period, followed by post-test data collection to assess outcomes.

RESULTS AND DISCUSSION:

The finding is discussed under 3 sections

SECTION-I Percentage distribution of the demographic variables

- **Gender:** Majority higher secondary students - 80% were Female, 20% were Male and secondary students -85% were Female, 15% were male.
- **Religion**: 80% of higher secondary students were Hindu, 8% Muslim, and 12% Christian. All secondary students 100% were Hindu.
- **Socio-economic Class:** Upper Class: A smaller portion of students (12%) belonged to upper-class families. Middle Class: The majority of students (68%) were from middle-class families. Lower Class: Around 20% of students came from lower-income families.
- **Types of Family:** Joint Family: 40% of secondary students and 32% of higher secondary students belonged to joint families. Nuclear Family: 60% of secondary students and 68% of higher secondary students were from nuclear families.
- **Awareness of Peer Tutoring:** Yes: 55% of students across both levels were aware of peer tutoring as a collaborative learning approach, with higher secondary students showing slightly higher awareness. No: 45% of students, mostly from the secondary level, were not aware of peer tutoring.

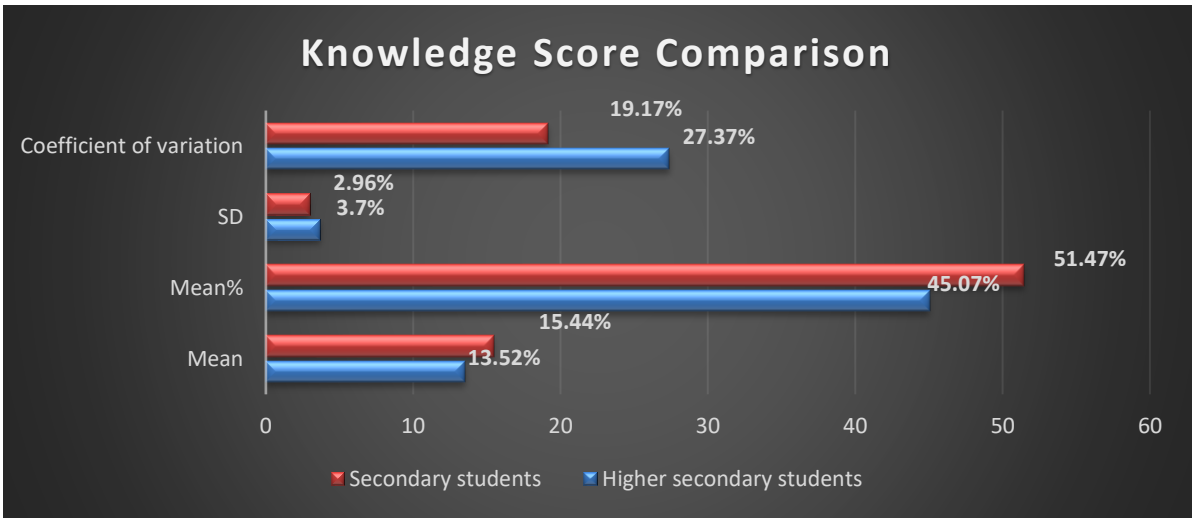
SECTION-II Knowledge of higher secondary students and secondary students regarding peer tutoring.

Knowledge	poor (%)	Average (%)	Good (%)	df	Chi square value (Critical value)	Significance
Higher Secondary students	7	18	0	2	11.23(10.59)	P<0.005 HS
Secondary students	0	21	4			

A significant improvement in the knowledge score of both higher secondary and secondary students was noted, with higher secondary students showing 72% moderate knowledge.

- **SECTION-III Knowledge score comparison between higher secondary students and secondary students.**

A statistically significant difference in the knowledge scores between higher secondary and secondary students was found to be highly significant, with a **t-value** of 2.03 and **p = 0.04**. This indicates a significant difference in the knowledge regarding peer tutoring, with higher secondary having significantly higher knowledge and greater consistency in their knowledge scores.



SECTION-IV Association of demographic variables with knowledge and attitude

Statistically significant associations were observed between the knowledge scores of both higher secondary and secondary students and their demographic variables, including age, Gender, family type, Socio-economic class, and aware of peer tutoring (**p > 0.05**). Therefore, the research hypothesis that there would be a significant association between the knowledge score of higher secondary and secondary students regarding peer tutoring with selected demographic variables was accepted.

RECOMMENDATIONS:

1. Replicate the study with a larger sample size for validation.
2. Develop gender-specific approaches for peer tutoring programs.
3. Implement educational interventions to increase male students' engagement in peer tutoring.

IMPLICATIONS: The findings of the study can be used in following areas of nursing profession.

- **Nursing Practice**: Peer tutoring can be integrated into school health and public health programs to foster collaborative learning among students.
- **Nursing Administration**: Incorporating peer tutoring into capacity-building initiatives for nursing educators can enhance teaching strategies.
- **Nursing Research**: Future studies can explore cultural and teaching method influences on peer tutoring outcomes.

CONCLUSION

The study underscores the effectiveness of peer tutoring in enhancing academic performance among low-achieving higher secondary and secondary students. Both groups benefited from this collaborative learning approach, though senior secondary students demonstrated higher consistency in knowledge improvement. Findings emphasize the need for tailoring peer tutoring programs to different academic stages and exploring gender-sensitive approaches to maximize outcomes. These insights advocate for a more inclusive, learner-centric educational framework.

ETHICAL CLEARANCE

Ethical clearance for the study was granted by the Institutional Ethical Committee of Peoples College of Nursing, Bhopal. Informed consent was obtained from all participants, ensuring they were aware of the study's purpose and voluntary participation.

SOURCE OF FUND

The author declares no conflicts of interest.

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