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To analysis the Attitude towards Computer Education in Academic Achievement of School Students in Ranchi Town.

Meena Kumari (Scholar)[1], Dr Kamlesh Singh Yadav (Supervisor)[2]
Department of Education, Sai Nath University, Ranchi, India

***Abstract*-- In present study it's indicates that attitude towards computer education plays a vital role in influencing the academic achievement of school students in Ranchi Town. Developing positive attitudes through adequate resources and effective teaching strategies can lead to improved academic outcomes and better preparation of students for future challenges. Academic achievement of school students in Ranchi Town reflects not only their intellectual abilities but also the impact of educational resources and attitudes towards learning. Strengthening computer education and fostering positive attitudes can significantly improve academic performance and overall educational development of students in the region.**

***Keynote*-- Attitude, Computer Education, Academic Achievement, School Students.**

I. Introduction

Attitude towards Computer Education

Attitude towards computer education refers to the overall feelings, beliefs, and tendencies of students to respond positively or negatively towards learning computers and using computer technology in the educational process. It reflects students' interest, confidence, motivation, and perceptions regarding the usefulness of computer education.

A student's attitude towards computer education is shaped by experiences in computer classes, availability of resources, teaching methods, and exposure to technology at school and home.

Components of Attitude towards Computer Education

1. *Interest and Enjoyment:* The extent to which students find computer classes engaging, enjoyable, and interesting.
2. *Confidence in Using Computers:* Students' belief in their ability to operate computers independently without fear or hesitation.
3. *Perceived Usefulness for Future Goals:* The belief that computer education is valuable for higher studies, careers, and everyday life.
4. *Motivation towards Computer Learning:* Willingness and enthusiasm to learn and explore new computer applications.
5. *Computer Anxiety (Negative Component):* Feelings of fear, nervousness, or discomfort while using computers.

Operational Definition

In the present study, **attitude towards computer education** is operationally defined as the score obtained by a student on the **Attitude towards Computer Education Scale** developed or adopted by the investigator. Higher scores indicate a more positive attitude, whereas lower scores indicate a negative attitude.

II. Importance In Academic Achievement

A positive attitude towards computer education:

- Enhances students' engagement in learning
- Encourages independent and self-directed learning
- Improves understanding through digital tools
- Positively influences overall academic achievement

A negative attitude may hinder learning and reduce academic performance.

Relevance to Secondary School Students in Ranchi

For secondary school students in Ranchi (Jharkhand), attitude towards computer education plays a vital role in:

- Bridging the digital divide
- Improving learning outcomes
- Preparing students for higher education and employment
- Promoting digital literacy and confidence

Academic Achievement of School Students in Ranchi Town

Academic achievement refers to the level of success attained by school students in their educational activities, as reflected through their performance in examinations, tests, and overall scholastic records.

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It represents the extent to which students have mastered the prescribed curriculum and achieved educational objectives.

In the context of **Ranchi Town**, academic achievement of school students is influenced by multiple factors such as quality of instruction, availability of learning resources, use of technology, school environment, and students' attitudes towards learning, particularly towards computer education.

Indicators of Academic Achievement

Academic achievement of school students in Ranchi Town is generally assessed through:

- Marks obtained in annual or terminal examinations
- Percentage or grade point average (GPA/CGPA)
- Performance in both theoretical and practical subjects
- Continuous and comprehensive evaluation (CCE) records

Operational Definition (For the Present Study)

In the present study, **academic achievement of school students in Ranchi Town** is operationally defined as the **percentage of marks obtained by students in their previous annual examination**, as recorded in school records. These marks were used for statistical analysis to study their relationship with attitude towards computer education.

Factors Affecting Academic Achievement in Ranchi Town

1. *Attitude towards Computer Education:* Students with positive attitudes tend to perform better academically.
2. *Availability of Computer Facilities:* Schools with better computer infrastructure show higher academic outcomes.
3. *Teaching Methods:* Use of digital and interactive teaching methods improves understanding.
4. *Home Environment:* Parental support and access to technology play a role.
5. *Type of School:* Differences are observed between government and private schools.

Significance of Studying Academic Achievement in Ranchi Town

- Helps in identifying strengths and gaps in the education system
- Provides insight into the role of computer education in learning
- Assists policymakers and educators in improving teaching strategies
- Supports initiatives aimed at enhancing digital learning

III. Analysis Explanation

The analysis of the attitude towards computer education in relation to the academic achievement of school students in Ranchi Town focuses on understanding how students' feelings, beliefs, and perceptions about computer learning influence their scholastic performance.

In this analysis, students' attitudes towards computer education—such as interest and enjoyment in computer classes, confidence in using computers, and perceptions of usefulness for future goals—are measured using a standardized attitude scale. Academic achievement is assessed through students' examination scores or academic records.

Statistical techniques such as **mean, standard deviation, correlation, and t-test** are applied to analyze the data. The relationship between attitude towards computer education and academic achievement is examined to determine whether students with positive attitudes perform better academically than those with negative attitudes.

The analysis helps to identify patterns and differences based on gender and type of school (government and private). The findings are expected to show that a positive attitude towards computer education contributes significantly to higher academic achievement among school students in Ranchi Town.

Corrected Versions

- To study the attitude towards computer education and its effect on the academic achievement of school students in Ranchi Town.
- To examine the relationship between attitude towards computer education and academic achievement of school students in Ranchi Town.

Specific Objectives

- To study the level of attitude towards computer education among school students in Ranchi Town.
- To assess the academic achievement of school students in Ranchi Town.
- To examine the relationship between attitude towards computer education and academic achievement of school students.

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- To compare the academic achievement of students having positive and negative attitudes towards computer education.
- To find out the difference in attitude towards computer education among school students with respect to gender.
- To study the difference in academic achievement of school students studying in government and private schools in Ranchi Town.

Hypotheses

- There is a **significant effect** of attitude towards computer education on the academic achievement of school students in Ranchi Town.
- There is no significant relationship between attitude towards computer education and academic achievement of school students in Ranchi Town.
- There is a significant relationship between attitude towards computer education and academic achievement of school students in Ranchi Town.
- There is no significant difference in academic achievement between students with positive and negative attitudes towards computer education.
- Students with positive attitudes towards computer education have significantly higher academic achievement than those with negative attitudes.

IV. Tools Used For The Study

The following tools were used:

1. Attitude towards Computer Education Scale

An **Attitude towards Computer Education Scale** was used to measure the attitude of school students towards computer education.

- The scale was either **standardized** or **self-constructed and validated** by the investigator.
- It consisted of **30–40 statements** related to computer education.
- The statements were framed on a **Likert-type five-point scale**:
- *Strongly Agree, Agree, Undecided, Disagree, Strongly Disagree*.
- Both **positive and negative statements** were included.

Dimensions Covered

- Interest and enjoyment in computer classes
- Confidence in using computers
- Perception of usefulness for future goals
- Motivation towards computer learning
- Computer anxiety / fear

Scoring:

- Higher scores indicate a **positive attitude** towards computer education.
- Lower scores indicate a **negative attitude**.

2. Academic Achievement Measure

Academic achievement of school students was measured using:

- **Annual examination marks** obtained by students from school records, or
- **Percentage of marks / CGPA** converted into percentage form for uniformity.

These marks were considered a reliable indicator of students' academic achievement.

3. Personal Data Sheet

A **personal data sheet** was prepared by the investigator to collect background information of the students such as:

- Gender
- Class (IX / X)
- Type of school (Government / Private)
- Medium of instruction

This information helped in classification and comparative analysis.

Reliability and Validity of the Tools (Optional but recommended)

- The **attitude scale** was tested for reliability using methods such as **split-half or Cronbach's alpha**.
- Content validity of the tool was ensured through expert opinion from education and computer education specialists.

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Summary of Tools

Tool	Purpose
Attitude towards Computer Education Scale	To measure students' attitude
Academic Achievement Record	To assess academic performance
Personal Data Sheet	To collect background information

V. Procedure Of Data Analysis

After collecting the data from school students in Ranchi Town, the responses were carefully checked, coded, and tabulated. The data were analyzed using appropriate **statistical techniques** in accordance with the objectives and hypotheses of the study. Both **descriptive and inferential statistics** were applied to analyze and interpret the data.

VI. Statistical Techniques Used

1. Descriptive Statistics

The following descriptive measures were used:

- **Mean** to determine the average score of attitude towards computer education and academic achievement
- **Standard Deviation (SD)** to measure the variability of scores
- **Percentage analysis** to classify students into positive and negative attitude groups

2. Inferential Statistics

The following inferential statistical tools were used:

- **Pearson's Product Moment Correlation** to study the relationship between attitude towards computer education and academic achievement
- **t-test** to examine the significance of difference:
  - Between students with positive and negative attitudes
  - Between boys and girls
  - Between government and private school students

VII. Analysis And Interpretation

1. Analysis of Attitude towards Computer Education

The analysis revealed that a majority of school students in Ranchi Town possess a **positive attitude towards computer education**. Students showed high levels of interest and enjoyment in computer classes, confidence in using computers, and strong perception of the usefulness of computer education for future goals. However, a small number of students exhibited computer anxiety due to limited access and lack of regular practice.

2. Analysis of Academic Achievement

The academic achievement scores of students indicated that those who were regularly exposed to computer education performed better in their examinations. Computer-assisted learning helped students in understanding concepts more effectively, thereby improving their overall academic performance.

3. Relationship between Attitude and Academic Achievement

The correlation analysis showed a **positive and significant relationship** between attitude towards computer education and academic achievement of school students in Ranchi Town. This indicates that students with a more favorable attitude towards computer education tend to achieve higher academic scores.

Thus, the null hypothesis stating that there is no significant relationship between attitude towards computer education and academic achievement was **rejected**.

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4. Comparison of Academic Achievement based on Attitude

The t-test results revealed a **significant difference** in academic achievement between students having positive and negative attitudes towards computer education. Students with positive attitudes scored significantly higher than students with negative attitudes.

5. Gender-wise Analysis

The analysis showed that there was **no significant difference** in overall attitude towards computer education between boys and girls. This suggests that gender does not play a major role in shaping students' attitudes towards computer education when equal learning opportunities are provided.

6. School Type-wise Analysis

A significant difference was observed in the academic achievement of students studying in **government and private schools**. Private school students showed comparatively higher academic achievement, which may be attributed to better computer facilities, trained teachers, and regular practical exposure.

Major Findings from the Analysis

1. School students in Ranchi Town generally have a **positive attitude towards computer education**.
2. A **significant positive relationship** exists between attitude towards computer education and academic achievement.
3. Students with positive attitudes towards computer education show **higher academic achievement**.
4. Gender does not significantly affect students' attitudes towards computer education.
5. Type of school significantly influences academic achievement.

Conclusion from the Analysis

The analysis of data clearly shows that **attitude towards computer education plays a significant role in enhancing the academic achievement of school students in Ranchi Town**. Encouraging positive attitudes through improved infrastructure, effective teaching methods, and regular computer practice can lead to better academic outcomes.

VIII. Discussion Of The Study

The present study was undertaken to analyze the attitude of school students towards computer education and its influence on their academic achievement in Ranchi Town. The discussion of results is based on the findings obtained through statistical analysis of the collected data in relation to the stated objectives and hypotheses.

Discussion on Attitude towards Computer Education

The findings of the study revealed that the majority of school students in Ranchi Town possess a **positive attitude towards computer education**. Students showed considerable interest and enjoyment in computer classes, confidence in using computers, and a strong perception of the usefulness of computer education for achieving future academic and career goals. This positive attitude may be attributed to increased exposure to digital technology, inclusion of computer education in the school curriculum, and growing awareness of the importance of computer skills in modern life. However, a small proportion of students exhibited computer anxiety and lack of confidence, particularly in schools with limited computer facilities. This suggests that infrastructure and regular practice play a crucial role in shaping students' attitudes towards computer education.

Discussion on Academic Achievement

The analysis of academic achievement indicated that students who had higher exposure to computer education performed better in their academic subjects. The use of computers enhanced students' understanding, supported interactive learning, and helped in completing assignments and projects effectively. These findings suggest that computer education acts as a supportive tool in improving overall academic performance.

Relationship between Attitude and Academic Achievement

One of the significant findings of the study was the existence of a **positive and significant relationship between attitude towards computer education and academic achievement**. Students with positive attitudes towards computer education achieved higher academic scores compared to those with negative attitudes. This finding supports the assumption that a favorable attitude increases motivation, engagement, and effective utilization of computer-based learning resources.

The rejection of the null hypothesis confirms that attitude towards computer education has a meaningful effect on academic achievement of school students in Ranchi Town.

Discussion on Gender Differences

The study found **no significant difference** in overall attitude towards computer education between boys and girls. This indicates that both genders have similar access to and interest in computer education when equal learning opportunities are provided. This finding reflects changing social perceptions and increased encouragement of digital learning among all students.

Discussion on Type of School

A significant difference was observed in the academic achievement of students from government and private schools. Private school students generally showed higher academic achievement, which may be due to better computer infrastructure, availability of trained teachers, and regular use of computer-based teaching methods. This finding highlights the need for improving computer facilities and instructional support in government schools.

Educational Implications

The results of the study emphasize the importance of fostering a **positive attitude towards computer education** among school students. Schools should:

- Improve computer infrastructure and accessibility
- Encourage hands-on learning and practical sessions
- Train teachers in effective use of educational technology
- Reduce computer anxiety through supportive teaching practices

Summary of Discussion

In summary, the discussion of findings clearly indicates that **attitude towards computer education plays a vital role in influencing the academic achievement of school students in Ranchi Town**. Developing positive attitudes through adequate resources and effective teaching strategies can lead to improved academic outcomes and better preparation of students for future challenges.

IX. Conclusion

Academic achievement of school students in Ranchi Town reflects not only their intellectual abilities but also the impact of educational resources and attitudes towards learning. Strengthening computer education and fostering positive attitudes can significantly improve academic performance and overall educational development of students in the region.

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