



CRITICAL THINKING AND SOCIAL SKILLS OF SECONDARY SCHOOL STUDENTS

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ABSTRACT

The present study was conducted to investigate the relationship between **Critical Thinking** and **Social Skills** of secondary school students. A **survey method** was adopted for the study. A sample of **100 secondary school students** from Mandya city was selected through **simple random sampling**. The tools used for data collection were a **Critical Thinking Test** constructed by the investigator and **Dr. Nalini Rao's Social Skills Scale**. The collected data were analyzed using **t-test** and **Pearson's Product Moment Correlation** techniques. The results revealed that **male and female students do not differ significantly** in their levels of Critical Thinking and Social Skills. Further, there exists **no significant relationship** between Critical Thinking and Social Skills among secondary school students.

Key Words: Critical Thinking, Social Skills, t-test, Pearson's Product Moment Correlation.

1. INTRODUCTION

Education in the 21st century focuses on preparing students to live productively in a modern, technological, and globalized society. Developing higher-order thinking skills—particularly **critical thinking**—has become an essential educational goal. Students are expected to apply what they learn to solve real-life problems intelligently and independently.

Similarly, in a rapidly changing social world, learners need to develop **social skills** that enable effective communication, empathy, cooperation, and problem-solving in interpersonal contexts. These skills are vital for maintaining positive relationships and functioning effectively in society. Hence, educators play a crucial role in nurturing both critical thinking and social skills in school children.

1.1 Critical Thinking

Critical thinking refers to purposeful, self-regulatory judgment involving interpretation, analysis, evaluation, and inference. It helps students recognize problems, evaluate evidence, make reasoned decisions, and justify their conclusions. According to Norris and Ennis (1989), "*Critical thinking is reasonable, reflective thinking that is focused on deciding what to believe or do.*"

1.2 Social Skills

Social skills are the abilities that facilitate effective interaction and communication with others. They include cooperation, empathy, listening, assertiveness, conflict resolution, and teamwork. Well-developed social skills enable students to participate actively in classroom learning, resolve conflicts amicably, and build positive relationships. Studies indicate that students with higher social skills exhibit better academic performance and are more successful in adapting to social environments.

2. NEED AND IMPORTANCE OF THE STUDY

Modern education emphasizes both cognitive and social development. In this technological age, success depends not only on one's ability to think critically but also to collaborate, communicate, and behave socially in appropriate ways. Schools and teachers thus have a dual responsibility: to nurture reasoning and reflection while simultaneously developing cooperation and social sensitivity among learners.

Research highlights that both **critical thinking** and **social skills** can be taught, developed, and enhanced through appropriate pedagogical strategies. Hence, it becomes important to study whether these abilities differ across gender and whether they are interrelated among secondary school students of Mandya city.

3. REVIEW OF RELATED LITERATURE

A review of related literature provides a conceptual foundation for the present study and helps to identify existing research gaps. Studies conducted globally and in India highlight the importance of developing critical thinking and social skills in school education and their potential interrelationship.

3.1. Studies on Critical Thinking

Facione (1990) defined critical thinking as purposeful, self-regulatory judgment involving analysis, evaluation, and inference. His Delphi Report emphasized that educational programs should promote reflective and reasoned thinking rather than rote memorization.

Ennis (2011) argued that critical thinking is not content-free but rather a set of dispositions and abilities that must be practiced within subject contexts. His work underscored the need to embed critical thinking tasks in classroom learning.

Tiruneh et al. (2016) found that integrating problem-based and inquiry-based pedagogies in secondary science classes significantly enhanced students' critical thinking skills compared to traditional instruction.

In the Indian context, **Bansal and Sharma (2019)** studied higher secondary students in Punjab and found moderate levels of critical thinking, with no significant gender differences — aligning with the findings of the present study.

3.2. Studies on Social Skills

Gresham and Elliott (2008) defined social skills as socially acceptable learned behaviors that enable individuals to interact effectively and avoid socially unacceptable responses. Their Social Skills Rating System (SSRS) became a widely used tool in behavioral and educational research.

Malecki and Demaray (2006) demonstrated that students with strong social skills displayed better academic achievement and classroom adjustment. Similarly, **Nair (2017)** found that secondary school students with higher social skills were more likely to engage in cooperative learning and peer support.

Rao (2013) developed the *Social Skills Scale* used in the present study, which measures cooperation, empathy, and social adjustment. Her research among Indian adolescents revealed that social skills could be developed through value-based education and life skills training.

.3. Studies on the Relationship Between Critical Thinking and Social Skills

Several researchers have explored the interrelation between cognitive and social domains. **Paul and Elder (2006)** proposed that social competence and empathy are integral to fair-minded critical thinking, as reasoning often involves understanding others' perspectives.

Hosseini et al. (2019) conducted a correlational study among Iranian high school students and reported a positive association between critical thinking and social intelligence, suggesting that socially aware students tend to reason more reflectively.

In India, **Singh and Kaur (2020)** found that while both critical thinking and social skills are positively correlated with academic achievement, the direct correlation between the two variables was weak but positive — similar to the present findings from Mandya city.

Summary of the Review

The reviewed studies collectively suggest that both **critical thinking** and **social skills** are essential competencies for 21st-century learners. While gender differences are generally insignificant, both abilities can be fostered through active, constructivist, and cooperative learning methods. However, limited studies have examined their **direct relationship** in the Indian secondary school context. Therefore, the present study attempts to bridge this gap by analyzing the relationship between critical thinking and social skills among secondary school students in Mandya city.

3. STATEMENT OF THE PROBLEM

The study is titled: **“A Study of Critical Thinking and Social Skills of Secondary School Students of Mandya City.”**

The study seeks to examine gender differences and relationships between critical thinking and social skills among secondary school students. It aims to understand whether boys and girls differ in these abilities and whether students who think critically also tend to possess stronger social skills.

4. OBJECTIVES OF THE STUDY

1. To find whether there is any significant difference between male and female students with respect to **Critical Thinking**.
2. To find whether there is any significant difference between male and female students with respect to **Social Skills**.
3. To examine the **relationship between Critical Thinking and Social Skills** of secondary school students.

5. HYPOTHESES OF THE STUDY

1. There is **no significant difference** between male and female students with respect to Critical Thinking.
2. There is **no significant difference** between male and female students with respect to Social Skills.
3. There is **no significant relationship** between Critical Thinking and Social Skills of secondary school students.

6. VARIABLES OF THE STUDY

- **Main Variables:** Critical Thinking and Social Skills
- **Background Variable:** Gender

7. METHODOLOGY

The study adopted a **survey method**. Standardized and validated tools were administered to collect data related to critical thinking and social skills from the selected sample of secondary school students.

8. SAMPLE OF THE STUDY

The sample comprised **100 secondary school students** (50 boys and 50 girls) from Mandya city. The students were selected through **simple random sampling** from various government and private schools.

9. TOOLS USED FOR THE STUDY

- **Critical Thinking Test:** Constructed by the investigator, consisting of 35 multiple-choice questions covering eight dimensions: analysis, logical reasoning, inference, decision-making, discrimination, application, and information processing.
- **Social Skills Scale:** Developed by **Dr. Nalini Rao**, consisting of 90 items rated on a 4-point Likert scale (Strongly Agree to Strongly Disagree) covering cooperation, empathy, communication, and self-control.

10. COLLECTION OF DATA

The investigator obtained necessary permissions from the school heads and personally administered both the tools to the sample students in a controlled classroom setting.

11. STATISTICAL TECHNIQUES EMPLOYED

Data were analyzed using:

- **t-test** to compare mean scores of male and female students.
- **Pearson's Product Moment Correlation** to determine the relationship between Critical Thinking and Social Skills.

12. ANALYSIS AND INTERPRETATION OF DATA

Hypothesis 1:

There is no significant difference between male and female students with respect to Critical Thinking.

Gender	N	Mean	SD	t-value	df	Significance
Male	50	31.34	1.95	0.66	98	NS
Female	50	31.58	1.67			

The obtained t-value (0.66) is less than the table value at 0.05 level. Hence, the null hypothesis is accepted.

Hypothesis 2:

There is no significant difference between male and female students with respect to Social Skills.

Gender	N	Mean	SD	t-value	df	Significance
Male	50	196.46	2.48	0.12	98	NS
Female	50	196.52	2.52			

The obtained t-value (0.12) is less than the table value at 0.05 level. Hence, the null hypothesis is accepted.

Hypothesis 3:

There is no significant relationship between Critical Thinking and Social Skills of secondary school students.

Variables	N	df (N-2)	r	Level of Significance
Critical Thinking & Social Skills	100	98	0.16	NS

The obtained correlation ($r = 0.16$) indicates a positive but insignificant relationship between Critical Thinking and Social Skills.

13. FINDINGS OF THE STUDY

1. There is **no significant difference** between male and female secondary school students with respect to **Critical Thinking**.
2. There is **no significant difference** between male and female secondary school students with respect to **Social Skills**.
3. There exists a **positive but insignificant relationship** between Critical Thinking and Social Skills.

14. EDUCATIONAL IMPLICATIONS AND RECOMMENDATIONS

The findings of the present study reveal that there is **no significant difference** between male and female secondary school students with respect to **critical thinking** and **social skills**, and that there exists **no significant relationship** between these two variables. These results hold important implications for teachers, curriculum designers, and educational policy planners, particularly in the context of implementing the **National Education Policy (NEP) 2020** which emphasizes competency-based, learner-centered, and holistic education.

14.1. Implications for Teachers

- Teachers should **create classroom environments** that encourage inquiry, reflection, and dialogue.
- Integrating **collaborative learning strategies** such as group discussions, debates, and problem-solving tasks can simultaneously strengthen both critical and social competencies.
- **Constructivist pedagogical approaches**—including the 5E instructional model, project-based learning, and experiential activities—should be adopted to promote higher-order thinking.
- Continuous **formative assessment** should focus not only on academic achievement but also on students' reasoning ability, empathy, and cooperation skills.

14.2. Implications for Curriculum Designers

- The curriculum should integrate **explicit instruction in critical thinking** through interdisciplinary lessons and inquiry-based activities across all subjects.
- **Social-emotional learning (SEL)** components should be embedded into classroom activities, co-curricular programs, and life skills education.
- Textbooks and digital learning materials should include **reflective exercises and case studies** that foster perspective-taking and social awareness.
- Schools should promote a **values-based curriculum** aligned with NEP 2020 to nurture responsible, empathetic, and socially conscious citizens.

14.3. Implications for School Administrators

- Schools should organize **workshops and professional development programs** for teachers to build their capacity in critical thinking pedagogy and classroom management for social skills development.
- Establishing **peer mentoring and leadership programs** among students can enhance their interpersonal and collaborative abilities.
- Schools can adopt **activity corners, student clubs, and community-based projects** to provide practical platforms for students to apply both critical and social competencies in real-life contexts.

Recommendations for Further Research

- Future studies may include **larger and more diverse samples** from rural and urban schools to generalize the findings.
- Comparative studies could be undertaken across **different boards of education** (state, CBSE, ICSE) to examine contextual variations.

- **Experimental and longitudinal research designs** can help determine the causal relationship between critical thinking and social skills over time.
- Future researchers may explore how **digital citizenship, emotional intelligence, or collaborative learning** influence both variables in the post-pandemic educational environment.

Conclusion

The present study contributes to the growing body of literature emphasizing the need to balance cognitive and social dimensions of student development. Education in the 21st century must not only cultivate **analytical reasoning** but also **empathetic and socially adaptive behavior**. By embedding critical thinking and social skills within the mainstream curriculum, schools can move closer to realizing the vision of **NEP 2020**—to nurture competent, compassionate, and creative learners ready to meet global challenges.

The study concludes that critical thinking and social skills are essential and interrelated dimensions of a student's holistic development, though they may not always co-vary significantly at the secondary level. Both abilities can be nurtured through thoughtful instructional strategies, discussion-based classrooms, and cooperative learning environments. Educators should integrate critical thinking tasks with social skill-building activities to create a balanced, reflective, and socially responsible generation of learners.

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