



Computer Attitude among Secondary School Students in Mysuru District, Karnataka: A Descriptive Survey Study

Dr. Sharath Kumar C. R.

Principal, BGS English School, Bengaluru South, Karnataka, India, Email: sharu.krn@gmail.com

Abstract: *The rapid integration of digital technologies into school education has made students' attitudes towards computers an important educational concern. This study examined the level of computer attitude among secondary school students in Mysuru (Mysore) district, Karnataka, and tested whether computer attitude differed by gender and locality. A descriptive survey design was employed. Data were obtained from 84 secondary school students, comprising 43 boys and 41 girls; 51 students were from rural areas and 33 from urban areas. Computer attitude was measured using the standardized Computer Attitude Scale (CAS-KS) developed by Tahira Khatoon and Manika Sharma. Descriptive statistics and independent-samples *t*-tests were used for analysis. The distribution indicated that 36.90% of students were in the extremely low category, 23.81% in the low category, 16.67% in the below-average category, 17.86% in the average category, and 4.76% in the above-average category; no student fell in the high or extremely high categories. The gender comparison showed no statistically significant difference between boys ($M = 62.23$, $SD = 10.04$) and girls ($M = 60.98$, $SD = 11.77$), $t(82) = 0.528$, $p = .599$. Similarly, no significant difference was found between rural ($M = 60.96$, $SD = 11.29$) and urban students ($M = 62.64$, $SD = 10.27$), $t(82) = 0.688$, $p = .493$. The findings suggest that low computer attitude was widespread in the sample and that gender and locality alone did not explain meaningful variation. The study highlights the need for systematic opportunities for computer-supported learning, digital skill development, and positive technology experiences in secondary education.*

Keywords: *Computer Attitude; Secondary School Students; Educational Technology; Digital Learning.*

1. Introduction: Digital technologies have become integral to contemporary education, influencing classroom instruction, assessment, communication, learning resources, and school administration. The transition from predominantly teacher-centred instruction towards more learner-centred approaches has also increased the importance of students' ability and willingness to engage with digital tools. Computers can support access to information, multimedia learning, communication, problem solving, and independent learning when they are meaningfully integrated into educational practice.

Computer attitude refers broadly to students' affective and cognitive orientation towards computers, including their confidence, anxiety, interest, perceived usefulness, and willingness to engage with computer-related activities. The relevance of computer attitude remains important because technological access does not automatically translate into effective educational use. Research on computer-attitude measurement has also shown that older scales may capture different constructs and that careful selection and interpretation of attitude measures are necessary (Garland & Noyes, 2008).

The educational technology literature has evolved substantially from early computer-based instruction to multimedia, networked collaborative learning, and contemporary online learning environments. A large-scale review of 3,674 papers in *Computers & Education* documented this progression across four decades (Zawacki-Richter & Latchem, 2018). At the school level, evidence from India has also demonstrated continuing gaps in functional digital skills. Using national survey data, Bhandari et al. (2021) reported that only 42% of enrolled secondary students had the ability to operate a computer and 46% could browse the internet in 2017–2018, with important rural–urban and household-level differences.

Against this background, examining students' computer attitudes remains relevant, particularly in local school contexts where access, exposure, confidence, and educational use may vary. The present study focuses on secondary school students in Mysuru district and examines overall computer attitude as well as differences by gender and locality.

2. Need for the Study: The original manuscript identifies a need to understand secondary students' attitudes towards computers because computer-supported learning has become increasingly important in school education. The present study addresses this need through a focused empirical assessment of students' computer attitude. Recent Indian research similarly indicates that students' digital literacy, access to digital resources, and attitudes towards technology remain important areas for educational planning. For example, Bansal and Misra's study of 540 secondary students examined digital literacy across dimensions and highlighted the importance of strengthening students' digital capabilities. Research on school students' ICT attitudes has also examined rural–urban contexts, while studies of e-classrooms have shown that technical readiness does not necessarily imply that students perceive technology-mediated learning as effective.

The study is therefore useful for school leaders, teachers and education planners because understanding students' attitudes can help inform technology integration, digital-literacy interventions, and student-support strategies.

3. Review of Related Literature

Garland and Noyes (2008) examined the continuing relevance of four widely used computer-attitude scales. Their findings showed acceptable reliability across measures but also indicated that the constructs underlying computer attitude had changed over time. They recommended careful selection of scales and cautious interpretation of findings.

Zawacki-Richter and Latchem (2018) analysed 3,674 papers published in *Computers & Education* from 1976 to 2016 and identified four broad phases: computer-based instruction, stand-alone multimedia learning, networked computers for collaborative learning, and online learning. Their review demonstrates the changing technological context in which computer-related educational research must be interpreted.

Schindler et al. (2017) critically reviewed literature on computer-based technologies and student engagement. The review considered web-conferencing, blogs, wikis, social networking and digital games and emphasized that the educational value of technology depends on how it is integrated into learning rather than on technology availability alone.

Bhandari et al. (2021) examined functional digital skills among Indian secondary students using national survey data. Their findings indicated substantial gaps in computer and internet skills and identified rural–urban, household and school-level factors associated with digital-skill attainment.

Pan (2022) investigated school teachers' attitudes towards computer use in the Sundarban region of West Bengal using the Computer Attitude Scale of Khatoon and Sharma. The study reported differences across gender, experience and subject groups, illustrating that computer attitude can vary according to user characteristics and context.

Barik (2022) examined Indian school students' perceptions and preferences regarding e-classrooms during the COVID-19 period. Although students reported access to devices and technical knowledge, concerns about motivation, interaction and the experience of prolonged screen-based learning were also identified. These findings reinforce the distinction between technology access, technology competence, and positive educational attitudes.

The literature indicates that computer attitude is multidimensional and context-dependent. However, the present study contributes a district-level analysis of secondary students in Mysuru using a standardized computer-attitude measure and explicitly examining gender and locality differences.

4. Statement of the Problem: "Computer Attitude among Secondary School Students in Mysuru District, Karnataka: A Descriptive Survey Study"

5. Objectives

- To determine the level of computer attitude among secondary school students in Mysuru district.
- To study the significant difference between Boys and Girls of secondary school students with respect to their Computer attitude.
- To study the significant difference between Rural and Urban secondary school students with respect to their Computer attitude.

6. Hypotheses

H01: There is no significant difference between Boys and Girls of secondary school students with respect to their Computer attitude.

H02: There is no significant difference between Rural and Urban secondary school students with respect to their Computer attitude.

7. Method

7.1 Research Design: A descriptive survey design was used to study computer attitude among secondary school students. The design is appropriate for describing the distribution of attitudes and comparing mean scores across selected background groups.

7.2 Participants and Sampling: The study included 84 secondary school students from Mysuru district. The sample comprised 43 boys and 41 girls. By locality, 51 students were from rural areas and 33 were from urban areas. The original manuscript describes the use of random sampling and identifies secondary schools affiliated with the Karnataka State Education Department as the population. The manuscript does not provide sufficient information about the total population size, number of schools, class-wise distribution, age range, sampling frame, or the exact procedure used to implement random selection. These details should be added before submission.

Group	Category	n	%
Gender	Boys	43	51.19
	Girls	41	48.81
Locality	Rural	51	60.71
	Urban	33	39.29

7.3 Instrument: Computer attitude was assessed using the Computer Attitude Scale (CAS-KS) developed by Tahira Khatoon and Manika Sharma. Available documentation describes the scale as a 20-item measure covering five areas: computer anxiety, computer confidence, computer interest, computer as a useful tool, and computer career. The scale uses a five-point response format. The original manuscript identifies the instrument as standardized but does not report the reliability coefficient obtained for the present sample. For a journal submission, the authors should report the instrument's published reliability and, preferably, the reliability coefficient calculated from the present dataset.

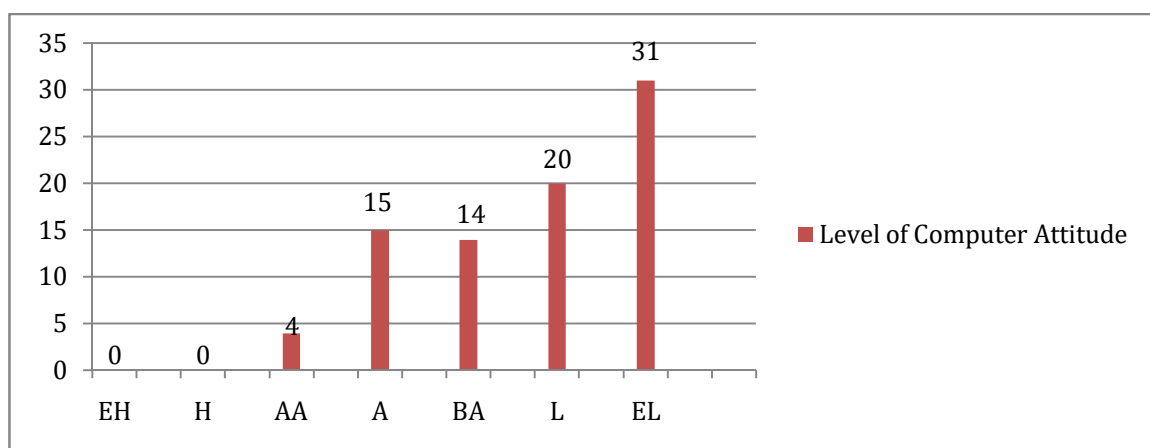
A methodological point requiring attention is the scoring classification reported in the original manuscript. The categories include cut-offs such as 64–72 and 72–81, which overlap at the boundary values. The authors should verify the original test manual and reproduce the authorized scoring criteria exactly before final submission.

7.4 Data Analysis: Descriptive statistics (frequency, percentage, mean and standard deviation) were used to describe computer-attitude levels. Independent-samples t-tests were used to compare mean computer-attitude scores by gender and locality. The reported t statistics and degrees of freedom were checked against two-tailed p-values: gender, $t(82) = 0.528$, $p = .599$; locality, $t(82) = 0.688$, $p = .493$. Both results are non-significant at $\alpha = .05$.

8. Results

8.1 To determine the level of Computer attitude among secondary school students in Mysuru district.

Sl No	Range	Level of Computer attitude	Grade	No of Students	%
1	96 & above	Extremely High –EH	A	0	0
2	89-95	High – H	B	0	0
3	82-88	Above Average – AA	C	4	4.7619%
4	72-81	Average A	D	15	17.8571%
5	64-72	Below Average – BA	E	14	16.6666%
6	58-64	Low – L	F	20	23.8095%
7	Below 57	Extremely Low – EL	G	31	36.9047%

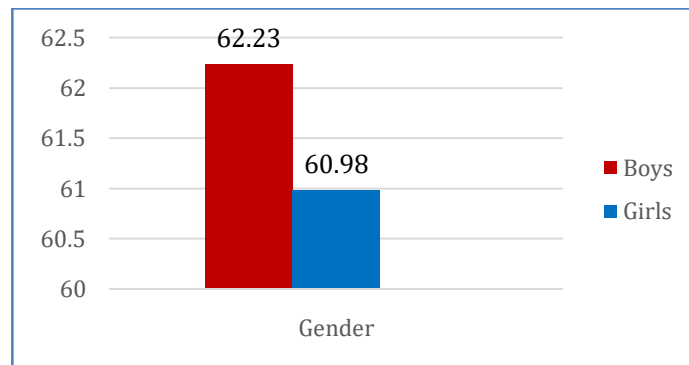


8.2 To study the significant difference between Boys and Girls of secondary school students with respect to their Computer attitude.

Sl No	Type of Gender	N	Mean	SD	df	"t"	Remarks
1	Boys	43	62.23	10.04	82	0.5275	Accepted
2	Girls	41	60.98	11.77			

(Standard Error: 2.383)

Above table shows that that obtained "t" value is less than that "t" value of df 82 at 0.05 level of significant. That is the null hypothesis is accepted and it is concluded that there is no significant difference between Boys and Girls secondary school students with respect to their Computer attitude.

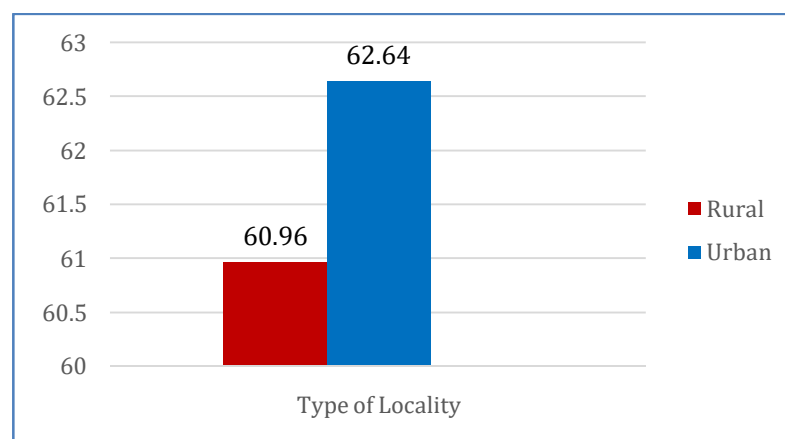


8.3 To study the significant difference between Rural and Urban secondary school students with respect to their Computer attitude.

Sl No	Type of Locality	N	Mean	SD	df	"t"	Remarks
1	Rural	51	60.96	11.29	82	0.6879	Accepted
2	Urban	33	62.64	10.27			

(Standard Error: 2.436)

Above table shows that that obtained "t" value is less than that "t" value of df 82 at 0.05 level of significant. That is the null hypothesis is accepted and it is concluded that there is no significant difference between Rural & Urban secondary school students with respect to their Computer attitude.



9. Discussion: The central finding is that computer attitude was low for a substantial proportion of students, while neither gender nor locality produced a statistically significant difference in mean attitude scores. The finding is consistent with the broad concern that access to technology and the development of meaningful digital engagement are not identical processes. Indian evidence has documented substantial variation in students' functional digital skills, with computer and internet abilities differing according to household and regional circumstances (Bhandari et al., 2021).

The absence of a significant gender difference in the present sample is also noteworthy. Previous studies have reported mixed patterns depending on the population, construct and context. Such variation supports the argument that gender should not be treated as a universal predictor of computer attitude without considering students' actual exposure, opportunities for use, confidence and educational experiences.

The absence of a rural–urban difference should likewise be interpreted cautiously. It may indicate that locality alone is insufficient to explain computer attitude within this sample. School-level factors, household access, frequency of use, quality of digital infrastructure, teacher practices, and students' prior experience may provide more explanatory power. The current dataset does not contain sufficient variables to test these explanations.

The study also raises an important measurement issue. Garland and Noyes (2008) demonstrated that computer-attitude constructs and the relevance of older attitude scales require careful consideration as technology changes. The CAS-KS remains a documented standardized measure, but the present study should report its reliability and scoring procedure transparently and discuss why the instrument remains appropriate for the contemporary context.

10. Educational Implications

- Schools should provide regular, structured opportunities for students to use computers for authentic learning tasks rather than limiting computer use to occasional demonstrations.
- Teachers can incorporate low-stakes digital activities that progressively develop confidence and reduce computer anxiety.
- Digital-literacy programmes should address both technical skills and students' confidence, interest and perceived usefulness of computers.
- School leaders should monitor access to functional devices, connectivity and opportunities for practice rather than assuming that the presence of computer facilities guarantees effective use.
- Interventions should be designed for all students because the present findings do not indicate statistically significant gender or locality differences.

11. Limitations

- The sample size was limited to 84 students, restricting the generalizability of the findings.
- The study was conducted within one district; findings should not be generalized to all secondary students in Karnataka without further evidence.
- The available manuscript does not report the exact school-wise sampling process, age/class distribution, socio-economic background, frequency of computer use, device ownership, or internet access.
- The study used a standardized attitude scale, but reliability for the present sample was not reported.
- The source manuscript does not provide confidence intervals or a full assumption check for the

independent-samples t-tests.

- The reported score categories contain overlapping boundary values and therefore require verification against the original instrument manual.

12. Conclusion: This study examined computer attitude among 84 secondary school students in Mysuru district. The results indicate that computer attitude was predominantly low in the sample. Boys and urban students obtained slightly higher mean scores than girls and rural students, respectively, but neither difference was statistically significant. The findings suggest that improving students' computer-related attitudes should be approached as a school-wide educational priority rather than as an issue attributable simply to gender or locality. Future research should use larger and more diverse samples and examine predictors such as computer access, frequency of use, digital competence, teacher support, parental educational background, and school infrastructure.

13. References

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Citation: Kumar. S. C. R., (2026) “Computer Attitude among Secondary School Students in Mysuru District, Karnataka: A Descriptive Survey Study”, *Bharati International Journal of Multidisciplinary Research & Development (BIJMIRD)*, Vol-4, Issue-08, August-2026.