



GOVERNMENT COLLEGE OF EDUCATION

Institute of Advanced Studies in Education
Cluster University, Srinagar
Maulana Azad Road, Srinagar (J&K)

ISSN- 0974-8997

INQUIRY

AN EDUCATIONAL JOURNAL



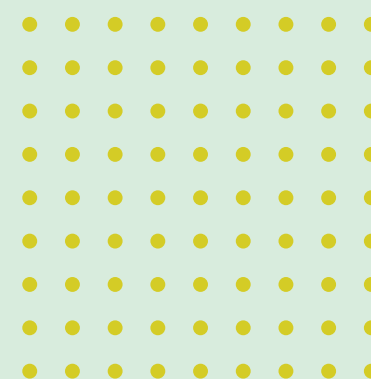
GOVERNMENT COLLEGE OF EDUCATION

Institute of Advanced Studies in Education
Cluster University, Srinagar
Maulana Azad Road, Srinagar (J&K)

(NAAC RE-ACCREDITED GRADE "A" (CGPA 3.24))

Tele: 01942479807/ Ph.: 9419018037
Email: gcoe.srg@gmail.com, website: www.gcoekmr.edu.in

**VOL: 43
MAY, 2026**



INQUIRY: AN EDUCATIONAL JOURNAL

(Peer Reviewed)

ISSN-0974-8997

Vol-43

2026

Patron

Prof. (Dr) Seema Naz
Principal

Editor-in-Chief

Dr. Showkeen Bilal Ahmad Gul
Assistant Professor (Senior Scale)



GOVERNMENT COLLEGE OF EDUCATION
INSTITUTE OF ADVANCED STUDIES IN EDUCATION (IASE)
CLUSTER UNIVERSITY SRINAGAR

M.A ROAD SRINAGAR, J&K 190001
(NAAC ACCREDITED GRADE "A" CGPA 3.24)
Telephone No: - 2479807, Fax: 0194 2479807
E. mail: gcoe.sgr@gmail.com

Website: [www.https://gcoekmr.edu.in/](https://gcoekmr.edu.in/)

ADVISORY BOARD

Shri Ram Niwas Sharma (IAS)

Administrative Secretary,
Higher Education Department

Prof. (Dr.) Mohammad Mobin

Hon'ble Vice Chancellor
Cluster University Srinagar

Prof. (Dr) Sheikh Ajaz Bashir

Director Colleges
Jammu and Kashmir

Prof. (Dr.) Syed Wilayat Hussain Rizvi

Registrar
Cluster University Srinagar

Prof. (Dr.) Seema Naz

Nodal Principal KDC & Principal
Govt College of Education (IASE), Srinagar

REVIEW COMMITTEE MEMBERS

External Members

Prof. Mehmood Ahmad Khan
Former Dean and Head
School of Education and Behavioral Sciences
University of Kashmir

Prof. Syed Zahoor Ahmad Geelani
Head
School of Education
Central University of Kashmir

Prof. Mohammad Sayid Bhat
Professor
School of Education and Behavioral Sciences
University of Kashmir

Internal Members

Prof. (Dr.) Seema Naz
Principal
Govt College of Education (IASE)
Srinagar

Dr. Showkeen Bilal Ahmad Gul
Assistant Professor
Govt College of Education (IASE)
Srinagar

Dr. Syed Riyaz Ahmad Ahah
Assistant Professor
Govt College of Education (IASE), Srinagar

Mr. Yunis Basit Sofi
Assistant Professor
Govt College of Education (IASE), Srinagar

Copyright: All rights reserved. No part of the contents of the journal may be reproduced by photo print, micro film or any other means without the written permission from the publisher

Publisher:

Principal,

Govt. College of Education (IASE) M. A. Road, Srinagar-190001

May, 2026

ISSN: 0974-8997

Printed At:

Note: - The opinions/ research work expressed in the research papers and research articles are purely the personal opinion and work of the author. The institution does not assume any responsibility or liability for the same.

CONTENTS

Sr. No.	Title of Paper	Investigator(s)/Author(s)	P. No.
01	Attitude Towards Drug Addiction Among Higher Secondary School Students: A Comparative Study of Two Educational Zones (Batamaloo and Srinagar) of District Srinagar	Prof (Dr) Seema Naz & Iqra Javed	01
02	Smartphone Addiction among Adolescent Students: A Comparative Study	Abdaal Ahmad Bhat	07
03	Zaiba Aapa Institute of Inclusive Education (ZAIIE): Empowering Children with Special Needs in Kashmir	Dr. Rohi Jan	12
04	A Study of Creativity among Adolescents in relation to their Classroom Environment	Dr. Showkeen Bilal & Dr. Atieq Ul Rehman	23
05	AI awareness and student engagement as a catalyst for academic excellence in secondary schools in Haryana	Dr. Neha Sharma & Ms. Pinkey	30
06	Academic anxiety among government and private school students in south kashmir: a quantitative study of gender, socio-economic status, and school environment	Arshid Ahmad Sheergojeri & Dr. Kiran Mishra	40
07	From Vision to Practice: A study of Challenges Encountered by teacher educators in integrating ICT in teaching-learning	Dr. Tarandeep Kour & Dr. Sunita Devi	49
08	From Obedient Learners to Intelligent Co-Creators: Rethinking Education 1.0 To 5.0.	Dr Ismail Thamarasseri, Molu G Nair, & Gisa Merin Varghese	61
09	Integrating AI Feedback Bot for Assignment Evaluation in Distance Education: A Case Study of the Diploma in Pre-Primary Teachers Training Programme	Dr Showkat Rashid Wani & Ishrat Mohmad	71
10	A Study of Attitude Towards Information Technology Among Secondary School Teachers of District Budgam	Dr. Muddasir Hamid Malik	78
11	A Study on Emotional Intelligence and Academic Stress Among Professional Students of District Pulwama.	Jahangir Rashid	86
12	To Assess the level of Anxiety among Adolescents in Rural and Urban Areas of Kashmir Division	Dr. Irfat Ara Khan & Dr. Shabina	99
13	A study of the correlation between critical thinking and Problem-Solving ability among secondary school students	Sapna Sharma & Dr. Neha Sharma	110
14	Understanding the Social Dimensions of Water Resource Management: A Review-Based Analysis of the Fragile Ecosystem in Srinagar.	Lateef Ahmad Shah & Ms. Shawana Manzoor	119

Sr. No.	Title of Paper	Investigator(s)/Author(s)	P. No.
15	A Study of Willingness to Seek Professional Counselling for Psychological and Interpersonal Concerns Among Youth	Dr Shabina & Dr Irfat Ara Khan	127
16	Personal and Social Adjustment of Screen – Addicted and Non-Addicted Secondary School Students	Shagufta Rehman & Dr Showkat Rashid Wani	144
17	A Multidimensional Study of Socio-Economic Status of Gujjar and Bakarwal Communities of Jammu and Kashmir	Dr. Mohd ZiaUl Haq Razaqi & Zubair Ahmad Rather	158
18	A Study of Social Adjustment among Secondary School Students of Tehsil Karnah	Dr. Syed Riyaz Ahmad Shah & Naheema Maqbool	169

Attitude Towards Drug Addiction Among Higher Secondary School Students: A Comparative Study of Two Educational Zones (Batamaloo and Srinagar) of District Srinagar

Prof (Dr) Seema Naz - Principal &
Iqra Javed- Investigator, M.Ed. Programme
Government College of Education (IASE), Cluster University Srinagar

Abstract

Adolescence is a critical developmental stage during which attitudes toward substance use are formed and shaped by personal, social, and environmental influences, often before direct exposure to substances occurs. The present study examined differences in attitudes toward drug addiction among higher secondary school students across two educational zones (Batamaloo and Srinagar) of District Srinagar, with reference to gender differences. A sample of 270 students (135 boys and 135 girls) was selected from 14 government higher secondary schools using a multistage stratified random sampling technique. Students' attitudes toward drug addiction were assessed using the Scale of Attitude towards Drugs and Alcohol (SADA), a 26-item self-report instrument developed by Jain and Deolia. Data were analysed using descriptive statistics and independent-samples t-tests. The findings revealed that the largest proportion of students in both zones demonstrated a moderate or ambivalent attitude toward drug addiction rather than clearly favourable or unfavourable orientations. Students from the Batamaloo zone exhibited significantly higher attitude scores, indicating a comparatively more favourable attitude toward drug addiction, than students from the Srinagar zone, $t(268) = 2.35$, $p = .020$. Gender differences within the Batamaloo zone were not statistically significant, $t(133) = 1.27$, $p = .207$; however, within the Srinagar zone, girls obtained significantly higher attitude scores than boys, $t(133) = 2.13$, $p = .035$. Comparisons across zones by gender indicated no significant differences among boys ($p = .134$) or girls ($p = .053$). The study highlights the importance of addressing students with moderate or ambivalent attitudes through comprehensive school-based prevention programmes. The findings also suggest the need for context-specific and gender-sensitive interventions to strengthen awareness, risk perception, and preventive attitudes toward drug addiction among adolescents.

Keywords: Attitude, Drug Addiction, Adolescents, higher secondary students, educational zones

1. Introduction

Education shapes not only academic competence but also the beliefs, values, and social attitudes that guide behaviour, including attitudes toward health-risk behaviours such as drug use (NEP 2020; Mishra, 2019). Adolescence — roughly ages 15–18 in the Indian higher secondary system — is a formative period in which identity, self-concept, and risk perception are still consolidating, making young people particularly susceptible to peer, media, and community influence (Steinberg, 2014). Attitude, understood through the classic cognitive–affective–behavioral (ABC) model, is a learned predisposition to evaluate an object favorably or unfavorably (Eagly & Chaiken, 1993; Breckler 1984), and attitudes toward drugs specifically have been shown to precede and predict experimentation and continued use (Hawkins, Catalano, & Miller, 1992).

Kashmir presents a distinctive context for this question. Decades of conflict, unemployment, and socio-economic disenfranchisement have been linked to rising substance use, with official 2026 figures placing roughly 70,000 individuals in the Kashmir Valley as active substance users, about 50,000 of them heroin users, alongside earlier broader estimates of 1.35 million affected by substance use across the region (Bhat & Imtiaz, 2017; Rather et al., 2023; Asia News Network, 2026). At the same time, conservative cultural and religious norms frame addiction less as a health condition and more as a moral failing, intensifying stigma and discouraging treatment-seeking (Sheikh et al., 2015). District Srinagar, the summer capital and principal educational hub of the Valley, is administratively divided into eight educational zones; Batamaloo (urban/peri-urban, transport and commercial hub) and Srinagar (central urban core) were selected for comparison because of their contrasting socio-economic and neighborhood profiles. No prior study had systematically compared adolescent attitudes toward drug addiction between these two zones, which this study set out to address.

2. Review of Literature

Global and national evidence converges on the attitude–behaviour link: the UNODC’s World Drug Report (2023) estimated 296 million drug users worldwide in 2021, a 23% rise over the preceding decade, and identified peer influence and social-media normalisation as key shapers of youth attitudes; the U.S. Monitoring the Future survey similarly found that lower perceived risk predicted higher experimentation (NIDA, 2022). In the Indian context, Kumar et al. (2024) found adolescents often rate “hard” drugs as highly risky while being comparatively permissive toward alcohol, tobacco, and prescription drugs, and Singh, Gupta, and Sharma (2022) showed that school-based awareness interventions measurably improve attitudes.

Kashmir-specific research consistently documents high prevalence alongside strong stigma. Saveela Salam and Afreen Niyaz (2022) and IMHANS (2022–2023) describe an escalating opioid crisis (roughly 2.23% opioid dependence, with a majority of heroin users injecting), while Ashish et al. (2022) found 80% of de-addiction patients experienced social ostracism, and Khan et al. (2025) found over half of medical residents preferred not to treat patients with substance use disorders despite recognizing addiction as a medical condition. Studies of general awareness (Hussain, Bhat, & Hassan, 2016; Yousuf & Bilal, 2023) report high awareness of drug risks (87–92%) but very low awareness of treatment resources (under 10%), alongside pervasive moralistic and stigmatizing attitudes. Peer influence, family environment, and educational exposure are repeatedly identified as the dominant proximal determinants of attitude formation (Toshniwal et al., 2017; Nurmala et al., 2021; Mathew, 2020). Garg et al. (2025) and Faizi et al. (2021), studying large Indian school samples, both report a substantial ambivalent or moderate-attitude band rather than clear approval or rejection — directly mirroring the categorisation scheme used in the present study. Despite this body of work, no study was located that compared attitudes between specific educational zones within a single Kashmiri district, which is the gap the present study addresses.

3. Objectives of the Study

1. To assess the level of attitude toward drug addiction among students in the Batamaloo zone
2. To assess the level of attitude among students in the Srinagar zone
3. To compare attitudes between boys of the two zones
4. To compare attitudes between girls of the two zones
5. To compare attitudes by gender within Batamaloo
6. To compare attitudes by gender within Srinagar
7. To compare overall attitudes between the two zones.

4. Hypotheses of the study

1. H_{01} : There is no significant difference in the attitude towards drug addiction in Boys of higher secondary school students in Batamaloo educational zone & Srinagar educational zone.
2. H_{02} : There is no significant difference in the attitude towards drug addiction in Girls of higher secondary school students in Batamaloo educational zone & Srinagar educational zone.
3. H_{03} : There is no significant difference in the attitude towards drug addiction based on gender among higher secondary school students of the Batamaloo educational zone.
4. H_{04} : There is no significant difference in the attitude towards drug addiction based on gender among higher secondary school students of the Srinagar educational zone.
5. H_{05} : There is no significant difference between the attitude towards drug addiction among higher secondary school students of Batamaloo & Srinagar educational zones.

5. Methodology

The study used a quantitative, descriptive, cross-sectional, comparative design. The accessible population comprised students of Government Higher Secondary Schools in the Batamaloo and Srinagar educational zones of District Srinagar, enrolled in Classes XI–XII (ages 15–18). A sample of 270 students (135 boys, 135 girls) was drawn from 14 government higher secondary schools (9 boys', 5 girls) using four-stage stratified random sampling — stratifying first by zone, then by school type, then selecting schools, then selecting students balanced by gender.

Attitude was measured with the Scale of Attitude towards Drugs and Alcohol (SADA; Jain & Deolia), a 26-item five-point Likert instrument (18 positively worded and 8 negatively worded items; Strongly Agree = 5 to Strongly Disagree = 1, reverse-scored for negative items). The scale was reported with test–retest reliability of .77 (reliability index .88) and split-half reliability of .83 (reliability index .91); only items with e"90% agreement in try-out testing (N = 200) were retained from an initial pool of 43. Total scores were interpreted using five bands: High Positive (101–130), Positive (61–100), Moderate (51–60), Low Negative (30–50), and High Negative (d"30 approx.), with higher scores indicating a more favorable/permissive attitude toward drug use. The tool was self-administered under confidential, voluntary conditions in 25–30 minutes. Data were analysed using percentages, means, and standard deviations for description, and independent-samples t-tests ($\pm = .05$) for group comparisons.

6. Results

Table 1. Distribution of attitude levels toward drug addiction by educational zone.

Attitude Category	Score Range	Batamaloo n (%)	Srinagar n (%)
High Positive	101–130	22 (16.3%)	12 (8.9%)
Positive	61–100	38 (28.1%)	27 (20.0%)
Moderate	51–60	54 (40.0%)	35 (25.9%)
Low Negative	30–50	7 (5.2%)	43 (31.9%)
High Negative	d"30	14 (10.4%)	18 (13.3%)
Total	—	135 (100%)	135 (100%)

Table 1 summarizes the distribution of attitude levels within each zone. In Batamaloo, the largest single group of students (40.0%) fell in the Moderate band, and a combined 44.4% fell in the High Positive/Positive (favorable) bands versus 15.6% in the Low/High Negative (protective) bands. In Srinagar, the Moderate band held 25.9% of students, while a combined 45.2% fell in the protective bands versus 28.9% in the favorable bands a markedly more negative (protective) overall profile than

Batamaloo.

Table 2. Independent-samples *t*-test comparisons of attitude scores ($\pm = .05$)

Comparison	Groups (M, SD)	df	t	p	Decision on H_0
Boys: Batamaloo vs. Srinagar	56.16 (14.19) vs. 52.75 (12.03)	133	1.51	0.134	Retained
Girls: Batamaloo vs. Srinagar	53.35 (9.37) vs. 56.77 (10.36)	133	1.95	0.053	Retained
Gender within Batamaloo	Boys 56.16 vs. Girls 53.35	133	1.27	0.207	Retained
Gender within Srinagar	Boys 52.75 vs. Girls 56.78	133	2.13	0.035	Rejected
Overall: Batamaloo vs. Srinagar	56.55 (12.43) vs. 53.17 (11.24)	268	2.35	0.02	Rejected

Table 2: Presents the seven inferential comparisons. Boys did not differ significantly across zones (Batamaloo $M = 56.16$, $SD = 14.19$; Srinagar $M = 52.75$, $SD = 12.03$; $t(133) = 1.51$, $p = .134$), and neither did girls across zones, although the difference approached significance (Batamaloo $M = 53.35$, $SD = 9.37$; Srinagar $M = 56.77$, $SD = 10.36$; $t(133) = 1.95$, $p = .053$). Within Batamaloo, boys and girls did not differ significantly ($M = 56.16$ vs. 53.35 ; $t(133) = 1.27$, $p = .207$). Within Srinagar, however, girls scored significantly higher (more favorable) than boys ($M = 56.78$ vs. 52.75 ; $t(133) = 2.13$, $p = .035$). At the zone level overall, Batamaloo students ($M = 56.55$, $SD = 12.43$) scored significantly higher than Srinagar students ($M = 53.17$, $SD = 11.24$), $t(268) = 2.35$, $p = .020$, indicating a significantly more favorable attitude toward drug addiction in Batamaloo.

7. Discussion

The zone-level finding that Batamaloo students hold a significantly more favourable attitude toward drug addiction than Srinagar students is consistent with Manzoor Ahmad Malla (2019) and Saveela Salam and Afreen Niyaz (2022), who linked regional variation in Kashmiri attitudes to differences in community exposure to addiction's visible consequences. Srinagar's status as the epicentre of the Valley's drug crisis, with high documented rates of injecting drug use and hepatitis C among users (IMHANS, 2022–2023), may paradoxically produce stronger disapproval among its students through direct or vicarious exposure to addiction's costs, whereas Batamaloo's more moderate/positive profile suggests comparatively lower protective awareness and a corresponding need for prioritised prevention work there.

The large Moderate-attitude group in both zones (40.0% in Batamaloo, 25.9% in Srinagar) is arguably the most policy-relevant finding: these students neither approve nor firmly reject drug use, leaving them highly susceptible to peer influence and social normalisation (Faizi et al., 2021; Salas-Wright & Vaughn, 2021). The absence of a significant gender effect within Batamaloo, alongside a significant one within Srinagar (girls more protective than boys), suggests that gender-differentiated socialisation parental monitoring, social-reputation concerns, and differential engagement with awareness programming — operates unevenly across zones rather than uniformly across the district (Kaur, Singh 2022; Brady et al., 2016). The Srinagar gender gap is the study's most statistically robust and least expected result, and it invites qualitative follow-up rather than a single confident explanation, since several competing mechanisms (differential stigma literacy, differential peer exposure, or scale-response patterns) remain equally plausible on the present data.

8. Conclusion and Educational Implications

Attitudes toward drug addiction among higher secondary students in District Srinagar are neither uniformly negative nor uniformly favorable: a substantial moderate, ambivalent segment exists in both zones, and this segment more than the smaller strongly favorable group represents the most tractable target for prevention. Zone-level context matters: Batamaloo's more permissive profile calls for prioritized, sustained life-skills and drug-awareness programming, ideally embedded in the regular curriculum (Health & Physical Education, Social Studies) rather than delivered as one-off assemblies (Botvin et al., 2001; Singh, Gupta, et al. (2022)). the significant gender gap suggests that programming should include components specifically engaging boys, alongside parent-engagement efforts, given that girls in this zone already display a stronger protective orientation. School counselling cells, peer-led awareness initiatives, and engagement with community and religious leaders who carry particular influence in the Kashmiri social context are recommended across both zones.

References

- Ajzen, I. (2005). Attitudes, personality, and behavior (2nd ed.). Open University Press. <https://www.scirp.org/reference/referencespapers?referenceid=775863>, American Psychiatric Association. (2013). Diagnostic and statistical manual of mental disorders (5th ed.).
- Ashish, Ravi, Vishal, et al. (2022). Drug abuse in North Kashmir – An experience from a drug de-addiction center. *Journal of Addiction and Dependence*. https://www.researchgate.net/publication/361237671_Drug_abuse_in_North_Kashmir_-_An_experience_from_a_drug_de-addiction_center
- Bhat, S. A., & Imtiaz, N. (2017). Drug addiction in Kashmir: Issues and challenges. *Journal of Indian Academy of Applied Psychology*, 3(3). <https://scispace.com/pdf/drug-addiction-in-kashmir-issues-and-challenges-d62vu0p05i.pdf>
- Brady, J. L., Iwamoto, D. K., Grivel, M. M., Clinton, L., Kaya, A., & Park, A. (2016). A systematic review of the salient role of feminine norms on substance use among women. *Addictive Behaviors*, 62, 83–90. <https://www.sciencedirect.com/science/article/abs/pii/S0306460316302106?/>
- Breckler, S. J. (1984). Empirical Validation of Affect, Behavior, and Cognition as Distinct Components of Attitude. *Journal of Personality and Social Psychology*, 47, 1191-1205. <https://doi.org/10.1037/0022-3514.47.6.1191>
- Botvin, G. J., Griffin, K. W., Diaz, T., & Ifill-Williams, M. (2001). Drug abuse prevention among minority adolescents: Posttest and one-year follow-up of a school-based preventive intervention. *Prevention Science*, 2(1), 1–13. <https://pubmed.ncbi.nlm.nih.gov/11519371/>
- Eagly, A. H., & Chaiken, S. (1993). *The psychology of attitudes*. Harcourt Brace Jovanovich. https://www.researchgate.net/publication/258879638_A_review_Eagly_A_H_Chaiken_S_1993_The_psychology_of_attitudes_New_York_Harcourt_Brace_Janovich
- Faizi, N., Alvi, Y., Saraswat, A., & Yasir, M. (2021). Knowledge, attitude, practice and pattern of substance use among adolescents and young adults from Aligarh, India. *Indian Journal of Community Health*, 33(4), 615–620. <https://www.iapsmupuk.org/journal/index.php/IJCH/article/view/2138>
- Garg, J., Sidhu, A. S., Goel, S., & Kaur, P. (2025). An online survey of knowledge, attitude, and prevalence of substance use in school-going adolescents of a regional area of Punjab, India. *Journal of Indian Association for Child and Adolescent Mental Health*, 21(1). <https://journals.sagepub.com/doi/10.1177/09731342241305499>

- Hawkins, J. D., Catalano, R. F., & Miller, J. Y. (1992). Risk and protective factors for alcohol and other drug problems in adolescence and early adulthood. *Psychological Bulletin* , 112(1), 64–105 <https://pubmed.ncbi.nlm.nih.gov/1529040/>
- Hussain, M., Bhat, S. A., & Hassan, T. (2016). Awareness of drug addiction among college students of Kashmir Valley. *Indian Journal of Psychiatric Social Work* . <https://www.researchgate.net/publication/308994800>
- IMHANS. (2022, 2023). [Prevalence and pattern of substance use disorders]. National Institute on Drug Abuse Reports. <https://nida.nih.gov/international/abstracts/prevalence-pattern-substance-use-disorders-in-10-districts-kashmir-2022-survey>
- Jain, P., & Deolia, A. (n.d.). Scale of Attitude towards Drugs and Alcohol (SADA). Se No 398 https://fliphtml5.com/opcwz/wuow/Complete_Catalogue___For_mail_NPC_2023/?utm_source=chatgpt.com
- Kaur, J., Singh, D., & Joshith, V. P. (2022). A life skills intervention aimed at changing attitudes of Indian youth towards alcohol and drug abuse. *Sri Lanka Journal of Psychiatry* , 13(1), 15–20 https://www.researchgate.net/publication/361292874_A_life_skills_intervention_aimed_at_changing_attitudes_of_Indian_youth_towards_alcohol_and_drug_abuse
- Khan, I., Imtiaz, M., & Younis, S. (2025). Knowledge, attitude and practices of medical residents towards patients with substance use disorder in Jammu and Kashmir. *International Journal of Community Medicine and Public Health*, 12(8), 3718–3723. <https://www.ijcmph.com/index.php/ijcmph/article/view/14373>
- Kumar, Das, Veena (2024). Knowledge and attitude regarding substance abuse among higher secondary school students in Uttar Pradesh. *Indian Journal of Youth and Adolescent Health*, 4(1), 1–7. <https://pmc.ncbi.nlm.nih.gov/articles/PMC11572422/>
- Mathew, S. R. (2020). [Journal of Alcoholism & Drug Dependence www.longdom.org/open-access/social-influences-in-adolescents-substance-use-a-systematic-review-58768.html
- Manzoor Ahmad Malla. (2019). [Factors contributing to the problem of drug abuse among the adolescents in Kashmir Valley.] *International Journal of Research and Analytical reviews*. https://ijrar.com/upload_issue/ijrar_issue_20543334.pdf
- Mishra, J. (2019). Study of elementary teacher education curriculum in the light of education for sustainable development [Doctoral dissertation, Mohan Lal Sukhadia University]. Shodhganga@INFLIBNET .
- National Institute on Drug Abuse. (2022) Monitoring the future national survey results on drug use, 1975–2021: Overview, key findings on adolescent drug use. National Institutes of Health. <https://nida.nih.gov/research-topics/trends-statistics/monitoring-future>
- Nurmala, et al. (2021). [The role of knowledge, attitude, gender, and school grades in preventing drugs use]. *International Journal of Environmental Research and Public Health*. <https://research-repository.griffith.edu.au/server/api/core/bitstreams/0abfbb38-a930-4dce-a729-938d6b0b652e/content>
- Rather, Irfan Mir (2023). Exploring the epidemic of drug addiction in Kashmir: Understanding its root causes. *Journal of Accounting Research, Utility Finance and Digital Assets* , 2(2), 94–105. Source: ResearchGate <https://share.google/Swy8XUAGzZchjM4u8>

Smartphone Addiction among Adolescent Students: A Comparative Study

Abdal Ahmad Bhat,
Assistant Professor (Education)
GDC Hyderabad

Abstract:

The present study examined the smartphone addiction among adolescent students based on gender. A sample of 200 adolescent students was selected by applying simple random sampling technique. For the collection of data, Smartphone Addiction Scale by Vijayshri and Ansari (2020) was administered. Statistical techniques like percentage and t-test were used to analyze the data. The results of the study revealed that majority of the adolescent exhibited moderate to high level of smartphone addiction. The results further revealed that there is no significant difference between male and female adolescent students on smartphone addiction.

Keywords: Smartphone Addiction, Adolescents, Gender

Introduction:

Smartphones, with their multiple functions and features, have gained immense prominence and become an integral part of everyday life. Many people, particularly the younger generation, prefer smartphones over laptops and personal computers because of the wide range of functionalities embedded in them. According to a report by Newzoo (2022), India ranks second in the world in terms of smartphone users, following China, which has approximately 974 million active users. App Annie (2021) reported that Indian smartphone users ranked third globally in terms of the amount of time spent on smartphones, preceded only by users in Indonesia and Brazil.

The widespread use of smartphones has significantly improved the efficiency and convenience of modern life. However, excessive and problematic smartphone use has also given rise to several health, social, and academic concerns (Khoury et al., 2019; Samaha & Hawi, 2016; Choi et al., 2015; Dar et al., 2024). In particular, an increasing number of young people have become highly attached to their smartphones and spend substantial amounts of time using them (Liu et al., 2017). The uncontrolled use of these modern technological devices may lead to several issues, including smartphone addiction (Lian et al., 2016). The inability to regulate smartphone use has been identified as smartphone addiction, a condition that can result in psychological and behavioural problems affecting day-to-day life (Liu et al., 2017).

The present generation of teenagers and young adults has an advanced relationship with technology that begins early in life (Beastall, 2008). Marc Prensky (2001) observed their familiarity with and dependence on ICT, describing them as individuals “living lives immersed in technology.” Although technological advancements are generally regarded as sources of convenience and entertainment, excessive use may have adverse consequences, such as smartphone addiction. Smartphone addiction is a behavioural disorder characterized by the uncontrollable and excessive use of smartphones, often measured by the amount of time users spend online over a certain period. Excessive smartphone use or online gaming addiction can produce problematic outcomes among students, negatively affecting their academic performance. Students addicted to smartphones may fail to prepare for examinations on time, show poor concentration in studies, and delay or neglect their assigned homework (Ayca, Ýlknur & Tugba, 2019; Dar et al., 2024). Recurrent smartphone addiction is considered a significant predictor of poor academic achievement in schools and higher educational institutions. Excessive time spent on smartphones becomes problematic when it interferes with face-to-face relationships, education, hobbies, work, and other important aspects of life, particularly by promoting academic procrastination among students.

The use of smartphones among adolescents aged 12–18 years has increased rapidly in recent years, making them one of the most vulnerable groups to smartphone addiction. Adolescents are often strongly attached to their smartphones because adolescence is a period marked by stress, emotional strain, and identity crises. During this stage, individuals undergo significant physical and psychological changes. On the one hand, adolescents remain dependent on their parents for guidance and support; on the other hand, they strive for independence and the development of their own identity and personality. Amid these psycho-physical changes, smartphones become indispensable to teenagers, who are highly attracted to new technologies and adapt quickly to operating such devices. Catherine Price (2018), in her book *How to Break Up with Your Phone*, argued that many smartphone users develop a toxic relationship with their phones, which negatively affects their sleep, creativity, and interpersonal relationships. This phenomenon is often referred to as “Nomophobia,” derived from the term “No-Mobile-Phone Phobia”.

Objectives of the study:

1. To study the prevalence of smartphone addiction among adolescent students.
2. To compare male and female adolescent students on smartphone addiction.

Hypotheses of the study:

Ha: There is a significant difference between male and female adolescent students on smartphone addiction.

Methodology:

Descriptive research method was used for the present study.

Sample

The investigator used a simple random sampling technique to draw the sample from different government higher secondary schools of district Pulwama (J&K). A sample of 200 adolescent students (class 11th and class 12th) consisted of 100 male and 100 female students were selected from the target population.

Data collection tools:

For the collection of data Smartphone Addiction Scale developed by Vijayshri and Ansari (2020) was used. The scale consists of 23 items with 6 dimensions viz, 1) “*Compulsion*”, 2) “*Forgetfulness*”, 3) “*Lack of Attention*”, 4) “*Depression and Anxiety*”, 5) “*Disturbed Hunger/Sleep*”, and 6) “*Social Withdrawal*”.

Data Analysis and Interpretation:

The collected data were analyzed by using SPSS version 26. Statistical techniques like percentage statistics and t-test were used to analyze the data.

Prevalence Analysis:

Table 1: Overall percentage distribution of smartphone addiction (N=100)

Levels of smartphone addiction	N	Percentage
High	75	37.5
Moderate	115	57.5
Low	10	5.0
Total	200	100

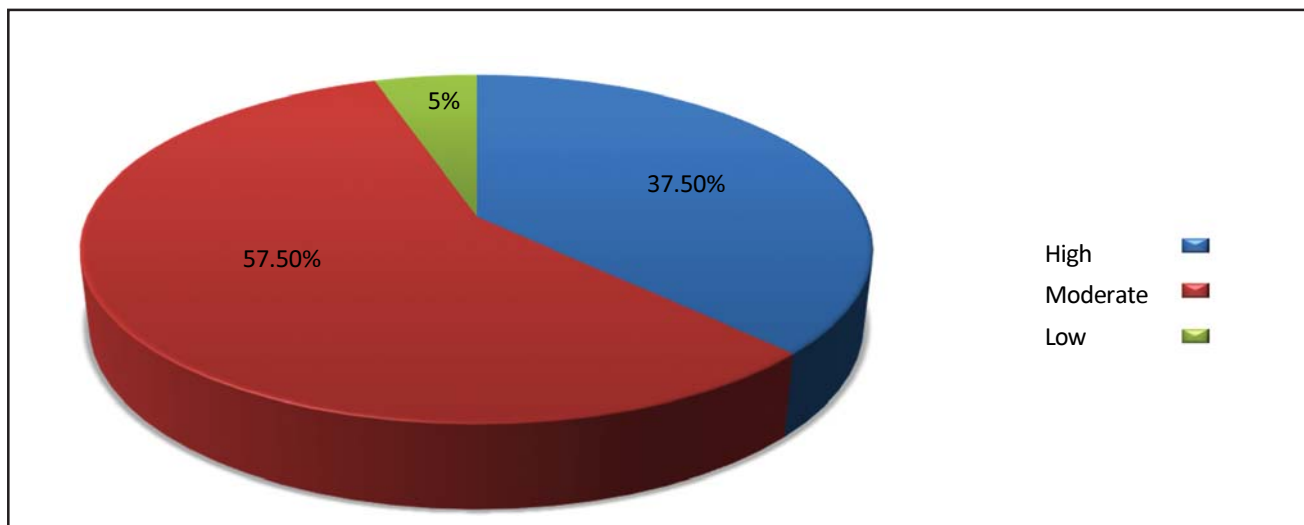


Fig1: Pie chart showing the overall percentage distribution of Smartphone Addiction (N=200)

Table 1 and figure depict that the majority of adolescent students have a moderate level of smartphone addiction i.e., 57.5% while 37.5% and 5% adolescent students were found at a high and low level of smartphone addiction respectively.

Comparative Analysis:

Table 2: Mean comparison of male and female adolescent students on smartphone addiction (N=200; Male=100; Female=100)

Gender	N	Mean	Std. Deviation	t-value	P
Male	100	78.74	8.86	.222	.825
Female	100	78.45	9.59		
Total	200				

Table 2 shows no significant difference between male and female adolescent students on smartphone addiction ($t=.222$, $p>0.05$). Therefore, the results indicate that both male and female adolescent students have similar level of smartphone addiction. Hence, hypothesis H1 which reads as, “*There is a significant difference between male and female adolescent students on smartphone addiction*” stands rejected.

Discussion:

The present study examined the influence of gender on smartphone. The results of t -test depict that both male and female adolescent students exhibit similar tendencies towards different dimensions of smartphone addiction like compulsion, forgetfulness, lack of attention, depression and anxiety, disturbed hunger/sleep, and social withdrawal. The results are in consonance with the studies conducted by Geng, et al. (2021); Bhutia & Tariang (2016) who found that gender has no significant impact on smartphone addiction. **Suggestions how to curb smartphone addiction:**

- Smartphones be banned to avoid internet surfing activities during the teaching-learning process in the classrooms.

- Children be encouraged to participate in activities that don't involve smartphones, such as sports, hobbies and social activities.
- Establish a set amount of time each day that students are allowed to use their smartphones.

This will help them to limit their usage and become more mindful of their time.

Conclusion

The results of the study depicted that smartphone addiction among adolescents is rapidly increasing. Students were found to spend more time on social media and gaming than academics and interacting with others. Consequently, this can lead to social, emotional and mental health issues among the students. Therefore, it is important to reduce the negative impact of smartphone addiction by developing strategies that will help students in managing their time and engaging themselves in more meaningful activities like reading and sports. Students also must be helped to develop healthy habits and coping strategies to manage their smartphone use. Hence, while smartphone usage is rapidly increasing, we suggest preventive measures and interventions to protect the younger generation.

References

- App Annie. (2021). *App Annie's 'state of mobile market in Q3 2021'*. <https://www.republicworld.com/technology-news/social-media-news/indians-spent-nearly-5-hrs-daily-on-phone-apps-in-q3-2021-finds-app-annies-new-report.html>
- Ayça, Ç. Ýlknur, R., & Tuđba, T. (2019). The Relationships among Academic Procrastination, Self-Control, and Problematic Mobile Use: Considering the Differences over Personalities. *Addicta: The Turkish Journal on Addictions*, 6, 447–468.
- Beastall, L. (2006). Enchanting a disenchanted child: revolutionising the means of education using Information and Communication Technology and e learning. *British journal of sociology of education*, 27(1), 97-110.
- Bhutia, Y., & Tariang, A. (2016). Mobile phone addiction among college going students in Shillong. *International Journal of Education and Psychological Research*, 5(2), 29- 35
- Choi, S.W., Kim, D.J., Choi, J.S., Ahn, H., Choi, E.J., Song, W.Y., Kim, S., & Youn, H. (2015). Comparison of risk and protective factors associated with smartphone addiction and Internet addiction. *Journal of Behavioral Addictions*, 4(4), 308–314.
- Dar, S. A., Tabinda & Puju, J. A. (2024), An Exploration Of Loneliness Among Smartphone Addict Adolescent Students: A Mixed-Method Approach, *Educational Administration: Theory and Practice*, 30(1), 1758 - 1764 Doi: 10.53555/kuey.v30i1.6176
- Dar, S. A., Tabinda, Lone, S. A. ., & Puju, J. A. (2024). Academic Anxiety among Smartphone Addict Adolescent Students: Does Gender and Subject Stream make any difference?.
- Geng, Y., Gu, J., Wang, J., & Zhang, R. (2021). Smartphone addiction and depression, anxiety: The role of bedtime procrastination and self-control. *Journal of Affective Disorders*, 293(1), 415-421.
- Khoury, J. M., Couto, L. F. S. C., Santos, D. A., E Silva, V. H. O., Drumond, J. P. S., Silva, L. L.

- C. E., Malloy-Diniz, L., Albuquerque, M. R., das Neves, M. C. L., & Duarte Garcia, F. (2019). Bad choices make good stories: the impaired decision-making process and skin conductance response in subjects with smartphone addiction. *Frontiers in psychiatry*, 10(73), 1-10.
- Lian, L., You, X., Huang, J., & Yang, R. (2016). Who overuses smartphones? Roles of virtues and parenting style in smartphone addiction among Chinese college students. *Computers in Human Behavior*, 65, 92–99. <https://doi.org/10.1016/j.chb.2016.08.027>
- Liu, Q., Zhou, Z., Yang, X., Kong, F., Niu, G., & Fan, C. (2017). Mobile phone addiction and sleep quality among Chinese adolescents: A moderated mediation model. *Computers in Human Behavior*, 72, 108–114. DOI: 10.1016/j.chb.2017.02.042
- Newzoo (2022). *Top countries by smartphone users*. <https://newzoo.com/resources/rankings/top-countries-by-smartphone-penetration-and-users>
- Prensky, M. (2001). Digital natives, digital immigrants' part 2: Do they really think differently?
On the horizon.

Zaiba Aapa Institute of Inclusive Education (ZAIIE): Empowering Children with Special Needs in Kashmir

Dr. Rohi Jan

Cluster Resource Coordinator,
School Education Department, Jammu and Kashmir.

Abstract

This qualitative case study examines the empowering initiatives of Zaiba Aapa Institute of Inclusive Education (ZAIIE) in Kashmir, with a particular focus on children with special needs. In a region where educational resources for such learners remain limited, ZAIIE serves as a model of inclusive practice by providing tailored learning opportunities and support services. The study is grounded in the Social Model of Disability, which views societal barriers rather than individual impairments as the primary source of detriment, and is contextualized within the policy context of the National Education Policy (NEP) 2020, which advocates equitable and inclusive education for all learners. Adopting a qualitative case study design, the research involved ten teachers and ten students selected through convenience sampling. Data were collected through semi-structured interviews and observations and analyzed thematically to explore participants' experiences and perceptions of inclusive education. The findings highlight the significant role of inclusive education in fostering supportive learning environments for children with special needs while identifying challenges related to resource constraints, societal attitudes, and the need for specialized training and institutional support in Jammu and Kashmir. The study contributes to the growing literature on inclusive education and offers practical implications for strengthening inclusive educational practices as envisaged under NEP 2020.

Keywords: Inclusive Education, Special Needs, Kashmir, ZAIIE, Educational Equity

Introduction

Inclusive education is an educational approach that promotes the active participation and equal treatment of all learners within educational institutions. It advocates for the inclusion of all students in the same learning environment and emphasizes equal access to educational opportunities. Recognized as a progressive educational philosophy, inclusive education challenges all forms of marginalization and values diversity as a strength rather than a limitation (Ainscow, 1998; Sapon-Shevin, 2003). It is grounded in the belief that all learners benefit from learning together in equitable and supportive settings. As access to education is widely acknowledged as a fundamental human right and a key element of an equitable society, inclusive education plays a crucial role in ensuring meaningful learning experiences and active student participation (Ainscow, 2015; Messiou et al., 2016).

Within the framework of inclusive ideology, inclusion embraces diverse learner needs, including exceptionalities, gender differences, and cultural and social diversity, ensuring equal educational opportunities for all. However, despite growing recognition of inclusive education in schools, its implementation continues to face several challenges, requiring educational practices to align more closely with inclusive values and principles. In this context, the present study explores the challenges and concerns related to inclusive education for children with special needs at the Zaiba Aapa Institute of Inclusive Education (ZAIIE) in Kashmir. It further seeks to provide recommendations for policymakers and administrators to strengthen inclusive practices and improve the educational experiences and outcomes of children with special needs.

Background context of Zaiba Aapa Institute of Inclusive Education (ZAIIE)

The Zaiba Aapa Institute of Inclusive Education (ZAIIE) is situated in Bijbehara, in the Anantnag district, near the Srinagar–Jammu highway. It was established by Javed Ahmad Tak, a native of Bijbehara, whose life changed significantly after becoming a victim of the armed conflict in Kashmir in 1997. Following severe injuries that affected multiple organs and resulted in permanent physical disability, Tak transformed his personal adversity into a mission to support children with special needs through inclusive education.

Driven by his lived experiences and deep empathy for persons with disabilities, Tak dedicated himself to promoting inclusive educational opportunities. After years of recovery, he pursued a postgraduate degree in social work at the University of Kashmir, demonstrating remarkable resilience and determination. In 2000, he founded the Humanity Welfare Organization Helpline, a non-profit organization committed to supporting underprivileged and physically disabled children.

In 2008, Tak established the Zaiba Aapa Institute of Inclusive Education (ZAIIE), initially focusing on the education of visually impaired children and later expanding its services to learners with diverse disabilities and learning needs. As a distinctive institution in South Kashmir, ZAIIE provides specialized education and training for children with diverse abilities. Tak's personal experiences and understanding of disability have significantly shaped the institute's inclusive philosophy and practices. Through ZAIIE, he has fostered a supportive learning environment that empowers children with disabilities, helping bridge educational gaps and enabling them to participate meaningfully in society.

Who is Zaiba Aapa

The Zaiba Aapa Institute of Inclusive Education (ZAIIE) derives its name from Zaiba Aapa, the grandmother of Javed Ahmad Tak, who was a respected woman in Bijbehara during the 1950s. Renowned for her compassion, humility, and selfless service, Zaiba Aapa assisted individuals with severe burn injuries by collecting medicinal herbs from forests at a time when medical facilities were limited. The institute was named in her honor as a tribute to her humanitarian spirit and lifelong commitment to helping others.

Established with only three students, ZAIIE gradually expanded due to its growing reputation and commitment to inclusive education. At present, the institute serves more than 100 children and employs around 15 staff members. This study explores the perspectives of teachers and students regarding inclusive education at ZAIIE, while identifying the challenges associated with implementing inclusive practices. By examining these concerns, the study seeks to provide policymakers and administrators with valuable insights and practical recommendations to strengthen educational inclusion for children with special needs. Through honoring Zaiba Aapa's legacy of compassion and service, ZAIIE continues to foster an inclusive learning environment where children with diverse needs receive the support and opportunities necessary for meaningful educational participation and development.

Research objective

- Explore teachers' and students' perception regarding inclusive education within the context of Zaiba Aapa Institute of Inclusive Education (ZAIIE).

Theoretical Framework: Social Model of Disability

The theoretical foundation of this study is based on the Social Model of Disability, a critical perspective for understanding and promoting inclusive education. This model views disability not as an individual deficiency,

but as a result of societal obstacles and attitudes (Oliver, 1996). It emphasizes the need to remove these barriers to ensure the full inclusion and participation of individuals with disabilities in all areas of life, including education. Within this study, the Social Model of Disability provides a framework for examining the attitudes of teachers and students toward inclusive education at the Zaiba Aapa Institute of Inclusive Education (ZAIIE). It highlights the significance of understanding how societal factors, such as attitudes, policies, and environmental factors, can shape the experiences and challenges faced by individuals with special needs in an inclusive educational setting. By embracing the Social Model of Disability, this study seeks to unveil the viewpoints and convictions of both teachers and students regarding inclusive education. Its primary objective is to comprehend the obstacles and catalysts for the effective execution of inclusive education at ZAIIE. It recognizes that inclusive education is not just about adjusting individuals to fit within the existing educational system, but involves reshaping the educational environment to meet the diverse needs of all learners (Slee, 2013)

Methodology of the Study

- **Approach**

The study adopted a qualitative approach, drawing on methodologies that facilitate deep analysis and comprehension of participants' perceptions, experiences, and perspectives within the specific context of the Zaiba Aapa Institute of Inclusive Education (ZAIIE). This methodological choice is informed by the works of scholars such as Savin-Baden and Niekerk (2007), who advocate for qualitative research as a means to explore complex phenomena within their natural contexts. Qualitative research emphasizes the significance of capturing participant voices and experiences, aligning with the principles outlined by Joskin (2013). By employing qualitative methods within the context of ZAIIE, the study sought to uncover nuanced insights and generate a rich understanding of inclusive education practices unique to this institution, thereby fostering a greater understanding of the complexities involved in implementing inclusive education in Kashmir.

- **Design**

The study used a case study design to gain insight into teachers' and students' perceptions of inclusive education practices at the Zaiba Aapa Institute of Inclusive Education (ZAIIE). A case study design was decided on because it enables for an in-depth examination of specific phenomena in their natural settings (Merriam & Associates, 2002). This design allowed for the examination of inclusive education-related activities, interactions, and views within ZAIIE's unique context. By concentrating on the single case of ZAIIE, the study aimed to offer comprehensive insights into the implementation and effectiveness of inclusive education policies from the perspectives of teachers and students.

Participants and Procedure

The participants were selected through convenience sampling, as it allowed the researcher to access readily available teachers and students directly involved in the inclusive educational setting of ZAIIE, making it appropriate for exploring context-specific experiences and perspectives (Creswell & Poth, 2018). However, as participants were selected based on accessibility, the findings may have limited generalizability beyond the study context. Prior to their selection, the researcher engaged in discussions with all potential participants, outlining the purpose and objectives of the study and obtaining their informed consent. The study comprised a total of 20 participants, evenly divided between school members and students from the Zaiba Aapa Institute of Inclusive Education (ZAIIE). This sampling strategy allowed for a diverse range of perspectives to be captured, contributing to a comprehensive understanding of inclusive education practices within the context of ZAIIE.

Table 1 represents the demographic attributes of the research participants

Individual Information	Numbers
Male Teachers	5
Female Teachers	5
Male students	5
Female students	5

- **Data Collection**

Data collection occurred between April and June 2024, utilizing primarily semi-structured interviews and observations. The objective was to explore participants' perspectives on inclusive education practices at the Zaiba Aapa Institute of Inclusive Education (ZAIEE). These interviews were guided by a predetermined set of questions aimed at eliciting insights into the contextual factors influencing their perceptions. The interview guide comprised eight questions outlined as follows:

1. Can you provide some background information about your experience and involvement with inclusive education at ZAIEE?
2. Describe any personal encounters or experiences you've had with inclusive education practices and curriculum materials at ZAIEE.
3. How familiar are you with the principles and approaches of inclusive education implemented at ZAIEE?
4. Share your thoughts and perspectives on the effectiveness of inclusive education practices at ZAIEE in fostering inclusivity and support for students with special needs.
5. In your opinion, what strategies or approaches have been effective in addressing challenges or barriers to inclusive education at ZAIEE?
6. Reflect on any practical experiences you've had, whether through teaching or observing inclusive education practices at ZAIEE.
7. Based on your experiences and observations, how would you evaluate the implementation of inclusive education principles at ZAIEE?
8. Is there anything else you would like to share about your experiences with inclusive education at ZAIEE and its impact on students with special needs?

The duration of each interview, lasting between 35 to 45 minutes, was determined by the structured nature of the questions. These interviews were conducted with participants to gather insights into various aspects of inclusive education practices at ZAIEE.

- **Data Analysis**

The collected data was subjected to thematic analysis to capture participants' experiences with inclusive education practices at the Zaiba Aapa Institute of Inclusive Education (ZAIEE). Using an open coding method, the researcher carefully analyzed the data line by line, identifying significant themes and categories

that emerged (Esterberg, 2002, p. 158). This analysis uncovered three primary qualitative themes and thirteen sub-themes, which are thoroughly presented in Table 2, providing a detailed summary of the key findings from the data analysis.

Themes	Sub-themes
Challenges in Inclusive Set-Up	❖ Implementation of policies ❖ Financial Assistance to Zaiba Aapa Institute ❖ Social Attitude towards Disability ❖ Hostility of parents ❖ Free Access
Children with Exceptionalities	❖ Visual impairment ❖ Hearing impairment ❖ Intellectually challenged ❖ Orthopedically challenged
Issues in Inclusive Set-Up	❖ Pre- service training and professional development ❖ Community Will and Participation ❖ Assistive devices ❖ Political will

Findings

Theme 1: Challenges in Inclusive Set-Up

Sub-theme: Implementation of policies: Concerned authorities must be careful to carry on inclusive education at the Zaiba Aapa Institute of Inclusive Education (ZAIIE).

One research participant articulated:

“Authorities in Kashmir should be more committed to implementing inclusive education policies and ensuring the rights of children with disabilities without unnecessary barriers” (T1).

Subtheme: Financial Assistance to Zaiba Aapa Institute: The Zaiba Aapa Institute of Inclusive Education (ZAIIE) functions as a non-governmental welfare organization committed to supporting marginalized communities, particularly children with physical disabilities. Given its focus on inclusive education and specialized support services, adequate financial assistance is essential for its sustainability and effective functioning. Such support enables the institute to provide specialized learning materials, assistive equipment, and trained staff to meet the diverse needs of learners. Insufficient funding may hinder the institute’s capacity to effectively implement its inclusive educational mission.

One research participant narrated:

“Authorities in Kashmir should be committed to effectively implementing inclusive education at the Zaiba Aapa Institute and provide adequate financial support to ensure its success” (MS1).

Furthermore, a participant said:

“Many of the parents had relocated to Srinagar just for their specially-abled children to attend education through inclusive institutions” (MS2).

Another participant expressed:

“The school building is being specially designed to meet the needs and well-being of physically challenged individuals, which requires strong financial support” (MT3).

Subtheme: Social Attitude towards Disability: People should develop good social attitude towards the children having disabilities.

One research participant narrated:

“The government, local authorities, and NGOs should organize awareness programs regularly to promote positive social attitudes toward children with disabilities and vulnerable learners” (FT1).

Subtheme: Pedagogical practices in the classroom: The Rehabilitation Council of India should offer high-quality professional development for instructors who work with disabled children.

One research participant said:

“Teachers working with challenged children with multiple disabilities should build effective pedagogical approaches in the classroom so that no difficulties arise throughout the learning process” (FS2).

Subtheme: The hostility of parents and community: Children who are born with multiple abnormalities should not be ill-treated anyway.

One research participant spoke:

“Children born with disabilities should not face mistreatment from parents, family, or society. We are also valuable members of society like others. Therefore, such attitudes should be addressed through awareness and special programs” (FS5).

Subtheme: Linkage of research and practice: Universities must conduct researches from inclusive perspectives also.

One research participant voiced:

“Inclusive education requires a high quality research so that innovative methods will emanate for the successful inclusion of children with disabilities” (MT3).

Subtheme: Free Access: The Zaiba Aapa Institute of Inclusive Education (ZAIIE) is a non-government organisation dedicated to improving the lives of impoverished and physically disadvantaged children. Many participants said:

“The fee system is another major barrier to inclusive education. We come from BPL families, and our parents’ poor financial condition makes it difficult to afford school expenses” (FS2).

Theme 2: Children with Exceptionalities

Subtheme: Visually impaired children: For the successful engrossment of inclusive education, several participants in this study demand suitable facilities.

Participants said:

“We emphasized the need to provide visually impaired students with tactile materials, Braille textbooks, and assistive technologies to support meaningful participation in education. Without these resources, visually impaired children face significant barriers in accessing the curriculum” (MS1 and MF5).

Subtheme: Hearing impairment:

Most of the participants in this study voiced:

“Qualified professionals are essential to support learners who rely on lip-reading. Without such assistance, these students may face barriers to full participation in education, highlighting the need for trained staff in inclusive settings” (FS8).

Subtheme: Intellectually challenged and orthopedically challenged:

Research participants shared their experiences:

“Specialized teaching methods, individualized learning plans, and a supportive environment were considered essential for students’ inclusion, well-being, and academic development” (MS9, FS1, MS7).

More participants stated:

“Accessible facilities, assistive devices, and inclusive physical and recreational environments were considered necessary to improve mobility, participation, and belonging among orthopedically challenged students” (MS3, FS1, MS7).

Participants articulated:

“To promote inclusive education in Kashmir, the curriculum should address the diverse needs of all learners, including children with disabilities; however, there is a lack of an appropriate inclusive curriculum” (MT1).

Theme 3: Issues in Inclusive Set-Up

Subtheme: Pre-service training and professional development: To promote inclusive education, qualified teachers are required. However elementary school teachers in Kashmir lack the required skills.

Participants verbalized:

“Comprehensive pre-service training is essential to equip teachers with the knowledge, skills, and strategies needed to support diverse learners and implement inclusive teaching practices effectively” (MS9, MS10, FS5).

Furthermore, participants expressed:

“Ongoing professional development is necessary to help teachers strengthen their skills, adapt to students’ diverse needs, and create inclusive classroom environments” (MT3 and FT1).

Subtheme: Community Will and Participation: Lack of Willingness of parents as well as the community seems in inclusive education.

Participant spoke:

“Parents whose children have any kind of disability must admit their wards to inclusive institutions so that they will not become parasites upon their family members” (FT1).

Subtheme: Assistive devices and Political will: One of the most pressing hitches in realizing the dream of inclusive education is the shortage of assistive technologies and political will to implement inclusive education in Kashmir.

Participant indicated:

“Children with learning difficulties should be provided good assistive devices from time to time along with continuous medical supervision” (MT2 and FT1).

One more participant voiced:

“Authorities must come forward with good incentives in the form of remuneration of at least 3500/ month so that disabled learners will not refuse to join inclusive institutions” (FT2).

Discussion

The main themes identified in this study include challenges in inclusive settings, children with exceptionalities, and issues related to inclusive education. The findings suggest that authorities in Kashmir must be both cautious and diligent in enforcing inclusive education policies, as well as upholding constitutional rights and provisions for children with disabilities, without resorting to excuses or technicalities. These results align with previous research (Bhat & Geelani, 2017), which asserts that authorities must be sincere and committed to the effective implementation of inclusive education in Kashmir. The study also highlights the need for adequate financial support for inclusive institutions to fully realize inclusive education. This finding is consistent with existing literature (Mooij & Smeets, 2009), which emphasizes that policy and financial backing are essential to advancing inclusive education.

The study also emphasizes the importance of fostering a positive social attitude toward children with disabilities. This finding is supported by Girli et al. (2016), who argue that individuals with disabilities can more easily integrate into society when they are welcomed by their peers, employers, families, and others, and when social attitudes are encouraging. Furthermore, the study reveals that teachers working with students who have diverse disabilities must develop effective teaching methods. This finding is consistent with prior research, including Florian (1998), who stresses that teachers need to be knowledgeable about learning disabilities and skilled in using specialized educational strategies and teaching methods. Similarly, other studies, such as those by Davis & Florian (2004), Kavale (2007), and Lewis & Norwich (2005), highlight the necessity for teachers to be well-prepared to address the unique educational needs of students with disabilities. Florian (2008) further emphasizes the importance of teachers being proficient in applying teaching techniques that accommodate diverse learners. Collectively, these studies point to the essential role of teacher training and expertise in effectively supporting students with disabilities, reinforcing the need for continued focus on educator preparation in inclusive educational settings.

This study highlights the critical importance of ensuring that children born with disabilities or deformities are not mistreated by their parents, family, or community members, as they too have the potential to make positive contributions to society. This finding is supported by Barriga et al. (2017), who stress that children with exceptionalities deserve to receive proper care from their families or in family-like environments and must be

protected from violence, neglect, exploitation, and abuse. Additionally, governments should take active steps to promote reliable community services, such as access to healthcare and free childcare support, to help prevent violence and foster inclusive education. By doing so, they contribute to the development of a healthier, more equitable society where all children can thrive and participate fully. Providing these essential services not only enhances the well-being of children with disabilities but also helps ensure that inclusive education becomes a reality, further empowering these children to play an active role in their communities.

This study also revealed that many students voiced concerns about the lack of infrastructure, specialized equipment, instructional materials, and overall resources in schools. This aligns with Vajjhala (2021), who points out that schools in India often lack the essential tools and technology needed to provide effective education for children with special needs. For instance, students with visual impairments require specialized learning aids, such as Braille facilities, to support their education. However, many schools are not financially equipped to provide these resources to all students in need. In this study, most participants expressed that authorities should offer substantial incentives, such as a monthly stipend of at least Rs 3500, to encourage students with disabilities to enroll in inclusive institutions. Addressing these concerns would not only improve access to education for children with special needs but also help create a more inclusive and supportive learning environment, ensuring that all students have the opportunity to succeed academically. This finding makes parallel with research by Morina (2017), which emphasizes the need for revising policies, support programs, and practices to improve the inclusiveness of the education system. Such updates are crucial to providing every student with the chance to actively engage in and benefit from high-quality teaching and learning experiences. This highlights the ongoing importance of reforming educational systems to make them more accessible and accommodating to a diverse range of learners. By creating an environment that fosters inclusivity, educational institutions can ensure that each student has the opportunity to thrive and achieve success. Continuous efforts to adapt and enhance educational frameworks are key to promoting equity and enabling all learners to reach their full potential.

Conclusion

Inclusive education is a transformative process aimed at educating every student, irrespective of their impairment, to foster peace, dignity, and equity worldwide. It is imperative to address various changes within the educational system, encompassing both institutional reforms and modifications in classroom practices, to advance towards greater inclusivity. Participants at the Zaiba Aapa Institute of Inclusive Education (ZAIIE) in South Kashmir expressed various concerns and challenges related to the educational system, which hinder its full endorsement and implementation. These issues highlight the urgent need for collaborative efforts among educators, policymakers, parents, and communities to address barriers and promote inclusive practices in educational settings. Despite these challenges, the successful implementation of inclusive education across the country is achievable through effective strategies, institutional commitment, and dedicated efforts. To ensure the success of inclusive education initiatives, it is crucial to provide each school, including the Zaiba Aapa Institute in Kashmir, with sufficient high-quality resources, trained faculty, assistive technologies, and appropriate infrastructural facilities to meet the diverse learning needs of students. Furthermore, regular teacher training programmes on inclusive pedagogies, strengthened parent–school collaboration, and greater community awareness are essential for creating supportive and equitable learning environments. From a policy perspective, the findings highlight the need for stronger implementation of inclusive education provisions envisaged under the National Education Policy (NEP) 2020, which advocates equitable and inclusive quality education for all learners, including children with disabilities. Therefore, educational authorities should ensure adequate funding, teacher capacity-building, accessible educational infrastructure, and effective monitoring mechanisms to translate inclusive education policies into meaningful classroom practices and promote equitable educational opportunities for all learners.

References

- Ainscow, M. (1998). Exploring links between special needs and school improvement. *Support for Learning*, 13(2), 70–75.
- Ainscow, M. (2015). *Towards self-improving school systems: Lessons from a city challenge*. Routledge.
- Barriga, S. R., Buchanan, J., Æerimoviæ, E., & Sharma, K. (2017). Children with disabilities: Deprivation of liberty in the name of care and treatment. In *Protecting children against torture in detention: Global solutions*.
- Bhat, M. U. D., & Geelani, S. Z. A. (2007). Inclusive education in India: Issues, challenges, and prospects. *Communications*. <http://ddekü.edu.in/Files/2cfa4584-5afe-43ce-aa4b-ad936cc9d3be/Journal/664a330e-bf05-4fe9-b7b6-569e577ca524.pdf>
- Creswell, J. W., & Poth, C. N. (2018). *Qualitative inquiry and research design: Choosing among five approaches* (4th ed.). Sage Publications.
- Davis, P., & Florian, L. (2004). Searching the literature on teaching strategies and approaches for pupils with special educational needs: Knowledge production and synthesis. *Journal of Research in Special Educational Needs*, 4(3), 142–147. <https://doi.org/10.1111/j.1471-3802.2004.00029.x>
- Esterberg, K. G. (2002). *Qualitative methods in social research*. McGraw-Hill.
- Florian, L. (1998). An examination of the practical problems associated with the implementation of inclusive education policies. *Support for Learning*, 13(3), 105–108.
- Florian, L. (2008). Inclusion: Special or inclusive education: Future trends. *British Journal of Special Education*, 35(4), 202–208. <https://doi.org/10.1111/j.1467-8578.2008.00402.x>
- Gaffas, Z. M. (2019). Students' perceptions of the impact of EGP and ESP courses on their English language development: Voices from Saudi Arabia. *Journal of English for Academic Purposes*, 42, 100797. <https://doi.org/10.1016/j.jeap.2019.100797>
- Girli, A., Sarý, H. Y., Kýrkým, G., & Narin, S. (2016). University students' attitudes towards disability and their views on discrimination. *International Journal of Developmental Disabilities*, 62(2), 98–107. <https://doi.org/10.1179/2047387715Y.0000000008>
- Kavale, K. A. (2007). Quantitative research synthesis: Meta-analysis of research on meeting special educational needs. In L. Florian (Ed.), *The SAGE handbook of special education* (pp. 207–221). Sage.
- Keeves, J. P. (1990). *Educational research, methodology, and measurement: An international handbook*. Pergamon Press.
- Merriam, S. B. (1998). *Qualitative research and case study applications in education*. Jossey-Bass.
- Messiou, K., Ainscow, M., Echeita, G., Goldrick, S., Hope, M., Paes, I., & Vitorino, T. (2016). Learning from differences: A strategy for teacher development in respect to student diversity. *School Effectiveness and School Improvement*, 27(1), 45–61. <https://doi.org/10.1080/09243453.2014.966726>
- Mooij, T., & Smeets, E. (2009). Towards systemic support of pupils with emotional and behavioural disorders.

International Journal of Inclusive Education, 13(6), 597–616. <https://doi.org/10.1080/13603110802047978>

Morina, A. (2017). Inclusive education in higher education: Challenges and opportunities. *European Journal of Special Needs Education*, 32(1), 3–17. <https://doi.org/10.1080/08856257.2016.1254964>

Norwich, B., & Lewis, A. (2005). How specialized is teaching pupils with disabilities and difficulties? In A. Lewis & B. Norwich (Eds.), *Special teaching for special children? Pedagogies for inclusion* (pp. 1–14). Open University Press.

Oliver, M. (2004). If I had a hammer: The social model in action. In J. Swain, S. French, C. Barnes, & C. Thomas (Eds.), *Disabling barriers—Enabling environments* (2nd ed., pp. 7–12). Sage.

Sapon-Shevin, M. (2003). Inclusion: A matter of social justice. *Educational Leadership*, 61(2), 25–28.

Slee, R. (2013). How do we make inclusive education happen when exclusion is a political predisposition? *International Journal of Inclusive Education*, 17(8), 895–907. <https://doi.org/10.1080/13603116.2011.602534>

Stake, R. E. (1995). *The art of case study research*. Sage.

Vajjhala, S. S. S. (2021). Inclusive educational practices in India: Policies and challenges. *International Journal of Recent Advances in Multidisciplinary Topics*, 2(11), 16–19.

A STUDY OF CREATIVITY AMONG ADOLESCENTS IN RELATION TO THEIR CLASSROOM ENVIRONMENT

Dr. Showkeen Bilal Ahmad Gul

Assistant Professor (Education), IASE, Srinagar

Dr. Atieq Ul Rehman

Assistant Professor, CTE Srinagar, School of Education & Training, MANUU

Abstract

The present study investigates creativity among adolescents in relation to their classroom environment. Creativity is increasingly recognized as a fundamental competency in contemporary education, essential for innovation, adaptability, and problem-solving. The classroom environment plays a crucial role in shaping students' creative abilities by influencing their motivation, engagement, and opportunities for expression. A descriptive survey method was employed on a sample of 500 adolescent students selected through stratified random sampling. Standardized tools, namely the Classroom Environment Scale (Moos & Trickett, 2002) and the Verbal Test of Creative Thinking (Mehdi, 2004), were used for data collection. Statistical techniques such as mean, standard deviation, Pearson's correlation, and t-test were applied for analysis. The findings revealed a significant positive relationship between classroom environment and creativity. Furthermore, significant gender differences were observed in both creativity and perception of classroom environment. The study highlights the importance of fostering supportive, participatory, and autonomy-enhancing classroom climates to promote creativity among adolescents.

Keywords: Creativity, Adolescents, Classroom Environment

Introduction

Creativity has emerged as a central component of modern education, playing a vital role in fostering innovation, adaptability, and problem-solving skills among learners. It is no longer considered an innate ability possessed by a select few; rather, it is viewed as a dynamic cognitive and social process that can be nurtured through appropriate educational practices (Teresa M. Amabile, 1996; Ken Robinson, 2011). In school settings, creativity enables students to generate original ideas, think divergently, and approach problems from multiple perspectives (E. Paul Torrance, 1974). Recent educational discourse also emphasizes creativity as a key 21st-century skill necessary for future readiness (Organisation for Economic Co-operation and Development, 2019; National Council of Educational Research and Training, 2022).

Adolescence is a critical developmental stage marked by significant cognitive, emotional, and social transformations. During this period, individuals develop higher-order thinking skills, including abstract reasoning, critical thinking, and creative problem-solving (Jean Piaget, 1972; Lev Vygotsky, 1978). Contemporary Indian studies have also highlighted adolescence as a crucial phase for nurturing creativity through supportive learning experiences and socio-cultural engagement (R. Sharma & P. Kaur, 2021).

The classroom environment is one of the most influential contextual factors affecting students' learning and development. It encompasses physical, psychological, and social dimensions such as teacher behavior, peer interaction, instructional strategies, and classroom management (Barry J. Fraser, 1998). A supportive classroom

climate characterized by openness, encouragement, collaboration, and autonomy has been found to facilitate creativity (Mihaly Csikszentmihalyi, 1996; Ronald A. Beghetto, 2013). Indian research also supports this view, indicating that democratic and activity-based classroom practices significantly enhance students' creative thinking (S. K. Singh, 2019; A. Gupta, 2020). In contrast, rigid, authoritarian, and examination-oriented environments may inhibit creative expression and limit students' intellectual growth (Beth A. Hennessey & Teresa M. Amabile, 2010).

In contemporary education systems, particularly those driven by standardized curricula and assessment practices, there exists a tension between the demand for measurable academic outcomes and the need to foster creativity (Organisation for Economic Co-operation and Development, 2019). In the Indian context, the National Education Policy 2020 strongly advocates experiential learning, critical thinking, and creativity as essential educational goals. Therefore, examining the relationship between classroom environment and creativity among adolescents is both timely and essential. The present study aims to explore how classroom conditions contribute to or hinder the development of creativity among students.

Review of Literature

Creativity has been widely acknowledged as a key element of educational development, contributing to innovation and higher-order thinking. According to Amabile (1996), creativity is influenced by both individual abilities and environmental conditions, particularly the social and psychological climate in which learning occurs.

Research indicates that classroom environment plays a significant role in shaping students' creative potential. A supportive and open classroom climate encourages students to express novel ideas, take intellectual risks, and engage in divergent thinking (Beghetto, 2016). Conversely, highly structured and authoritarian environments restrict autonomy and suppress creativity.

Amabile (1996) emphasized that creativity thrives in environments that promote intrinsic motivation, autonomy, and encouragement. Similarly, Hattie (2009) highlighted the importance of teacher support, feedback, and classroom climate in influencing learning outcomes, including creativity.

Fraser (1998) identified psychosocial dimensions of classroom environments—such as student involvement, teacher support, and cooperation—as strong predictors of academic and creative outcomes. Classrooms that promote collaboration enable students to exchange ideas and perspectives, thereby enhancing creative thinking (Craft, 2005).

Furthermore, autonomy-supportive teaching practices, as proposed by Deci and Ryan (2000), foster creativity by allowing students to explore and experiment independently. When students perceive their classroom as a safe and supportive environment, they are more likely to engage in creative problem-solving (Runco, 2014).

However, exam-oriented education systems often hinder creativity by emphasizing rote memorization and standardized performance (Sternberg, 2006). This highlights the need for transforming traditional classrooms into flexible, learner-centered environments that promote creativity.

Overall, existing literature strongly supports the view that classroom environment is a critical determinant of creativity among adolescents. The present study extends this understanding through empirical investigation.

Objectives of the Study

- To assess the level of creativity among adolescent students.

- To examine the nature of the classroom environment experienced by adolescents.
- To determine the relationship between creativity and classroom environment.
- To compare creativity levels among adolescents with respect to gender.

Hypotheses

- H_{01} : There is no significant relationship between creativity and classroom environment among adolescents.
- H_{02} : There is no significant difference between male and female adolescents in their creativity.
- H_{03} : There is no significant difference between male and female adolescents in their perception of classroom environment.

Methodology

The study employed a descriptive survey method to examine the relationship between classroom environment and creativity among adolescents. A sample of 500 students was selected using a stratified random sampling technique to ensure adequate representation.

Data were collected using the Classroom Environment Scale developed by Rudolf H. Moos and Edison J. Trickett (2002) and the Verbal Test of Creative Thinking by B. Mehdi (2004).

For data analysis, Mean and Standard Deviation were used as descriptive statistics, while Pearson's Product Moment Correlation Coefficient and t-test were applied to examine relationships and group differences.

Data Analysis and Interpretation

Table 1: Correlation between Creativity and Classroom Environment

Variables	N	Mean	SD	r-value	p-value
Creativity	500	72.5	8.4	0.62	<0.01
Classroom Environment	500	68.2	7.9		

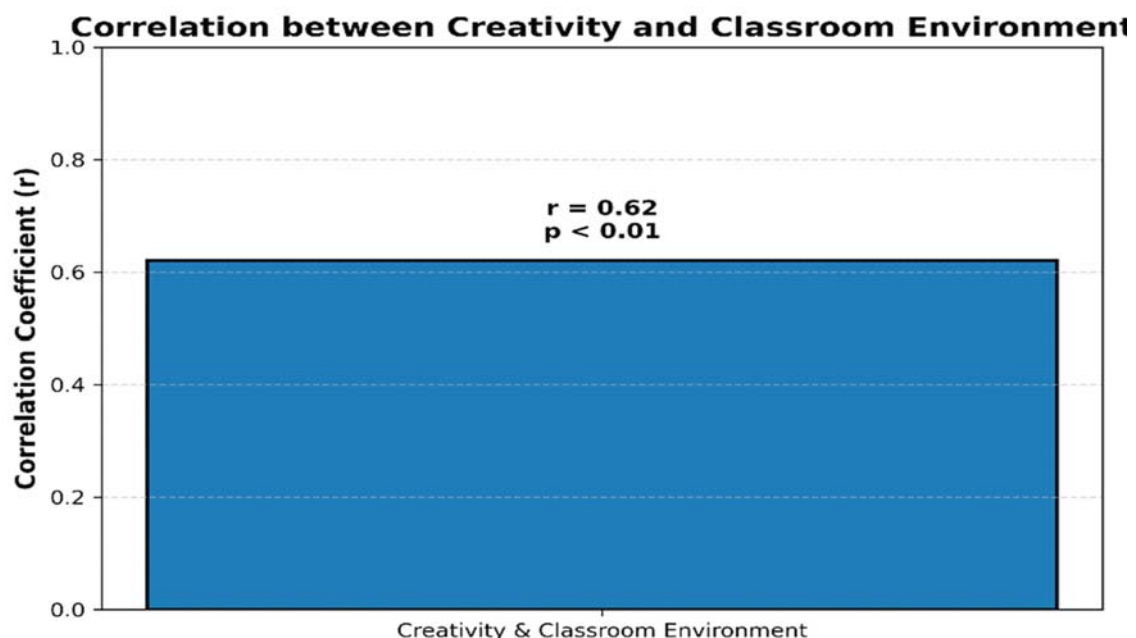


Table 1 reveals a positive and statistically significant correlation between creativity and classroom environment among the students. The obtained correlation coefficient ($r = 0.62$) indicates a moderate to high positive relationship between the two variables, suggesting that a favourable classroom environment is associated with higher levels of creativity among students. The mean score of creativity was found to be 72.5 with a standard deviation of 8.4, while the mean score of classroom environment was 68.2 with a standard deviation of 7.9. Further, the p-value (<0.01) indicates that the relationship is significant at the 0.01 level of significance. Hence, it can be interpreted that improvements in the classroom environment are likely to contribute positively towards enhancing students' creativity.

Table 2: Gender Difference in Creativity (t-test)

Gender	N	Mean	SD		t-value	p-value
Male	250	71.2	8.6		2.45	<0.05
Female	250	73.8	8.1			

Table 2 indicates the gender difference in creativity among the students. The mean score of creativity for male students was found to be 71.2 with a standard deviation of 8.6, whereas female students obtained a higher mean score of 73.8 with a standard deviation of 8.1. The calculated t-value (2.45) was found to be statistically significant at the 0.05 level of significance ($p < 0.05$). This indicates that a significant difference exists between male and female students in terms of creativity. Since the mean score of female students is higher than that of male students, it can be interpreted that female students possess comparatively higher creativity levels than male students.

Table 3: Gender Difference in Classroom Environment (t-test)

Gender	N	Mean	SD		t-value	p-value
Male	250	67.1	8.0		2.10	<0.05
Female	250	69.3	7.7			

Table 3 indicates the gender difference in classroom environment among the respondents. The mean score of classroom environment for male students was found to be 67.1 with a standard deviation of 8.0, whereas female students obtained a higher mean score of 69.3 with a standard deviation of 7.7. The calculated t-value (2.10) was found to be statistically significant at the 0.05 level of significance ($p < 0.05$). This indicates that a significant difference exists between male and female students regarding classroom environment. Since the mean score of female students is higher than that of male students, it can be interpreted that female students perceive the classroom environment more positively compared to male students.

Discussion

The findings of the present study revealed a significant positive relationship between creativity and classroom environment among students. The correlation coefficient ($r = 0.62$, $p < 0.01$) indicates that a favourable and supportive classroom environment enhances students' creativity. A positive classroom climate encourages free expression, participation, and innovative thinking among learners. This finding is supported by studies conducted by Fan and Cai (2020), who reported that creative learning environments significantly promote students' creativity and learning orientation. Similarly, Wang et al. (2023) found that supportive classroom climate and teacher encouragement positively influence students' creativity and motivation. Amabile (1996) also emphasized that

social and environmental factors play a vital role in fostering creativity among learners. Likewise, Soh (2000) reported that classroom environments characterized by encouragement, freedom, and support contribute significantly to students' creative behaviour.

The study further revealed a significant gender difference in creativity, with female students scoring higher than male students. This finding may be attributed to greater academic involvement, communication skills, and reflective thinking among female students. The findings are supported by the studies of Cheung (2010) and Matud, Rodríguez, and Grande (2007), who observed higher levels of creativity and emotional expression among female students in educational settings. However, some studies have also indicated that creativity is influenced more by environmental and educational opportunities than by gender alone.

The study also found a significant gender difference in classroom environment perception, where female students perceived the classroom environment more positively than male students. This suggests that female students may experience greater classroom support, participation, and interaction. Fraser (1998) highlighted that classroom environment significantly affects students' academic achievement, attitudes, and engagement. Similarly, Johnson and Johnson (1993) emphasized that cooperative and supportive classroom settings improve interpersonal relationships and enhance students' learning experiences.

Overall, the findings of the study emphasize the importance of creating supportive, democratic, and learner-centred classroom environments for enhancing creativity and promoting holistic student development.

Conclusion

The present study concludes that classroom environment plays a significant role in enhancing students' creativity. The findings revealed a positive and significant relationship between creativity and classroom environment, indicating that supportive, interactive, and learner-friendly classroom settings promote creative thinking among students. The study also found significant gender differences in both creativity and perception of classroom environment, with female students scoring higher than male students on both variables.

The results highlight the importance of providing a positive classroom climate characterized by encouragement, participation, cooperation, and freedom of expression. Such environments help students develop confidence, originality, and innovative thinking abilities. Therefore, teachers and educational institutions should focus on creating democratic and stimulating classroom environments to foster creativity and overall academic development among students.

References

- Amabile, T. M. (1996). *Creativity in context*. Westview Press.
- Beghetto, R. A. (2013). *Killing ideas softly? The promise and perils of creativity in the classroom*. Information Age Publishing.
- Beghetto, R. A. (2016). Creative learning: A fresh look. *Journal of Cognitive Education and Psychology*, 15(1), 6–23. <https://doi.org/10.1891/1945-8959.15.1.6>
- Cheung, R. H. P. (2010). Gender differences in creativity among Hong Kong school children: Comparison using the new electronic Wallach–Kogan creativity tests. *Creativity Research Journal*, 22(2), 194–199. <https://doi.org/10.1080/10400419.2010.481522>
- Craft, A. (2005). *Creativity in schools: Tensions and dilemmas*. Routledge.

- Csikszentmihalyi, M. (1996). *Creativity: Flow and the psychology of discovery and invention*. HarperCollins.
- Deci, E. L., & Ryan, R. M. (2000). The “what” and “why” of goal pursuits: Human needs and the self-determination of behavior. *Psychological Inquiry*, 11(4), 227–268. https://doi.org/10.1207/S15327965PLI1104_01
- Fan, M., & Cai, W. (2020). How does a creative learning environment foster student creativity? An examination of multiple explanatory mechanisms. *Current Psychology*, 39(5), 1561–1571. <https://doi.org/10.1007/s12144-018-9827-9>
- Fraser, B. J. (1998). Classroom environment instruments: Development, validity, and applications. *Learning Environments Research*, 1(1), 7–33. <https://doi.org/10.1023/A:1009932514731>
- Gupta, A. (2020). Classroom climate and its impact on students’ creativity in Indian schools. *Journal of Educational Studies*, 18(2), 45–52.
- Hattie, J. (2009). *Visible learning: A synthesis of over 800 meta-analyses relating to achievement*. Routledge.
- Hennessey, B. A., & Amabile, T. M. (2010). Creativity. *Annual Review of Psychology*, 61, 569–598. <https://doi.org/10.1146/annurev.psych.093008.100416>
- Johnson, D. W., & Johnson, R. T. (1993). Cooperative learning and achievement. In S. Sharan (Ed.), *Cooperative learning: Theory and research* (pp. 23–37). Praeger.
- Matud, M. P., Rodríguez, C., & Grande, J. (2007). Gender differences in creative thinking. *Personality and Individual Differences*, 43(5), 1137–1147. <https://doi.org/10.1016/j.paid.2007.03.006>
- Mehdi, B. (2004). *Verbal test of creative thinking*. National Psychological Corporation.
- Ministry of Education. (2020). *National education policy 2020*. Government of India.
- Moos, R. H., & Trickett, E. J. (2002). *Classroom environment scale manual*. Consulting Psychologists Press.
- National Council of Educational Research and Training. (2022). *National curriculum framework for school education (draft)*. NCERT.
- Organisation for Economic Co-operation and Development. (2019). *OECD learning compass 2030: A series of concept notes*. OECD Publishing.
- Piaget, J. (1972). *The psychology of the child*. Basic Books.
- Robinson, K. (2011). *Out of our minds: Learning to be creative* (2nd ed.). Capstone.
- Runco, M. A. (2014). *Creativity: Theories and themes: Research, development, and practice* (2nd ed.). Elsevier.
- Sharma, R., & Kaur, P. (2021). Creativity among adolescents: Role of school environment. *Indian Journal of Educational Psychology*, 39(1), 78–85.

- Singh, S. K. (2019). Classroom environment and creative thinking among secondary school students. *Indian Educational Review*, 57(2), 112–120.
- Soh, K. (2000). Indexing creativity fostering teacher behaviour: A preliminary validation study. *The Journal of Creative Behavior*, 34(2), 118–134. <https://doi.org/10.1002/j.2162-6057.2000.tb01205.x>
- Sternberg, R. J. (2006). The nature of creativity. *Creativity Research Journal*, 18(1), 87–98. https://doi.org/10.1207/s15326934crj1801_10
- Torrance, E. P. (1974). *Torrance tests of creative thinking*. Personnel Press.
- Vygotsky, L. S. (1978). *Mind in society: The development of higher psychological processes*. Harvard University Press.
- Wang, X., Zhang, Y., & Li, H. (2023). Classroom climate, motivation, and student creativity: The mediating role of autonomous motivation. *Thinking Skills and Creativity*, 48, Article 101281. <https://doi.org/10.1016/j.tsc.2023.101281>

AI Awareness and Student Engagement as a Catalyst for Academic Excellence in Secondary Schools in Haryana

Dr. Neha Sharma

Associate Professor, Dean, Faculty of Education, SGT, University, Gurugram.

Ms. Pinkey

A Research Scholar, Faculty of Education, SGT University, Gurugram.

Abstract

This research investigates the impact of Artificial Intelligence (AI) awareness on the academic performance of secondary school students in Haryana, while also examining the role of student engagement in this context. The objective of this study is to determine whether students who possess greater awareness of AI demonstrate superior academic outcomes through their increased participation and engagement in learning activities.

To this end, a quantitative research methodology was employed, and data was collected from 360 secondary school students. AI awareness was assessed using the 'Student AI Readiness Scale' (SAIRS). Student engagement was measured across behavioral, emotional, and cognitive dimensions using a standardized scale. Academic achievement was determined based on actual examination scores obtained from the students' school records. The collected data was analyzed using descriptive statistics, correlation, regression, and mediation techniques.

The findings indicate that students with higher levels of AI awareness exhibit greater engagement in their studies and achieve superior academic results. Student engagement was also identified as a significant factor influencing academic success. Furthermore, the mediation analysis confirmed that student engagement partially explains the mechanism through which AI awareness contributes to academic achievement.

This study suggests that fostering AI awareness among students can have a positive impact on their educational progress, particularly when students remain actively engaged in the learning process. Therefore, the integration of AI into education should focus not only on developing technical understanding but also on encouraging meaningful student engagement to facilitate better academic outcomes.

Keywords: Artificial Intelligence, Student Engagement, Academic Achievement, Secondary School Students

Introduction

Academic achievement, a key indicator of educational success, is influenced by cognitive, motivational, and environmental factors. In digital learning environments, interaction with technological tools, particularly AI, plays a significant role in shaping performance. However, the relationship between AI awareness and academic achievement is not purely direct and may be influenced by intervening variables such as student engagement. AI-driven learning environments can enhance engagement by offering interactive, adaptive, and personalized experiences, but their effectiveness depends on students' readiness and awareness.

AI awareness is conceptualized in this study as students' readiness to understand and effectively use AI

technologies in academic contexts, measured using the Student AI Readiness Scale (SAIRS), a validated 50-item Likert-based instrument. Similarly, student engagement is assessed through a multidimensional framework capturing behavioral, emotional, and cognitive involvement in learning activities. Academic achievement is measured through students' actual academic performance, reflecting their mastery of subject knowledge. The study is grounded in Social Cognitive Theory and Constructivist Learning Theory. Constructivist theory highlights learning as an active process, where AI-supported environments facilitate deeper engagement and knowledge construction.

AI awareness has rarely been examined as a structured construct, and the mediating role of student engagement in linking AI awareness to academic achievement remains underexplored. There is also a lack of context-specific research within Indian school settings, particularly in urban regions of Haryana. Therefore, the present study aims to examine the relationship between AI awareness and academic achievement among secondary school students, with a specific focus on the mediating role of student engagement. By integrating these variables into a unified framework, the study seeks to provide a deeper understanding of how technological awareness interacts with behavioral factors to influence academic performance and to offer insights for effective AI integration in school education.

Literature Review and Conceptual Framework

Artificial Intelligence (AI) has significantly transformed educational practices by enabling personalized learning, automated assessment, and intelligent tutoring systems (Zawacki-Richter et al., 2019; Chen et al., 2020). AI-powered tools provide real-time feedback, adaptive learning pathways, and data-driven insights, allowing students to learn at their own pace and improving academic outcomes (Bryant et al., 2020; Chassignol et al., 2018). Additionally, AI reduces teachers' administrative workload, enabling more student-centred instruction (Holmes et al., 2019). However, concerns related to ethics, privacy, and digital literacy remain critical challenges (Regan & Jesse, 2019). Importantly, the effectiveness of AI in education depends on students' ability to understand and use these technologies, highlighting the importance of AI awareness (Long & Magerko, 2020).

AI awareness refers to students' understanding of AI tools, their applications, and ethical implications. It plays a crucial role in shaping how effectively students engage with technology-enhanced learning environments. Research suggests that digital competence is positively associated with academic performance, as technologically aware students demonstrate better problem-solving abilities and learning outcomes (Ng, 2012).

Moreover, students' perceptions of AI influence their adoption and usage behaviors, with positive awareness leading to increased utilization and improved academic efficiency (Chan & Hu, 2023). Despite its significance, AI awareness remains underexplored at the secondary school level.

Student engagement is another critical determinant of academic achievement, encompassing behavioral, emotional, and cognitive involvement in learning (Fredricks et al., 2004). Engaged students are more likely to participate actively, persist in challenging tasks, and achieve better academic outcomes (Kuh, 2009). Emotional and cognitive engagement further enhance motivation, critical thinking, and deeper learning (Skinner et al., 2008; Greene, 2015). With the integration of AI technologies, engagement can be enhanced through interactive and personalized learning experiences (Bond et al., 2020). However, the extent of this enhancement depends on students' awareness and readiness to use AI effectively.

The relationship between AI awareness and student engagement is emerging as an important area of research. Studies indicate that students with higher technological awareness are more likely to demonstrate active engagement in learning processes (Hwang et al., 2020). AI awareness enhances behavioral participation,

emotional interest, and cognitive involvement, thereby supporting deeper learning (Venkatesh et al., 2012; Luckin et al., 2016). However, insufficient awareness may limit the effective use of AI, reducing its potential benefits.

Despite extensive research, several gaps remain. Most studies focus on higher education, with limited attention to secondary school students. AI awareness has rarely been examined as a structured construct, and the mediating role of student engagement between AI awareness and academic achievement remains underexplored. Additionally, there is a lack of context-specific research in Indian school settings, particularly in regions such as Gurugram, Faridabad, Panipat, Panchkula of Haryana.

To address these gaps, the present study proposes a conceptual model in which **AI awareness acts as an independent variable, academic achievement as the dependent variable, and student engagement as a mediating variable**. The model assumes both direct and indirect effects of AI awareness on academic achievement. Students with higher AI awareness are expected to engage more actively in learning, which in turn enhances academic performance. This framework provides a comprehensive understanding of how technological awareness interacts with behavioral processes to influence educational outcomes.

Research Objectives

1. To assess the level of AI awareness among secondary school students using the *Student AI Readiness Scale (SAIRS)*.
2. To examine the level of student engagement among secondary school students using a standardized engagement scale.
3. To analyze the relationship between AI awareness and academic achievement.
4. To examine the relationship between AI awareness and student engagement.
5. To determine the relationship between student engagement and academic achievement.

Hypotheses of the Study

H₀₁: There is no significant relationship between AI awareness and academic achievement among secondary school students.

H₀₂: There is no significant relationship between AI awareness and student engagement among secondary school students.

H₀₃: There is no significant relationship between student engagement and academic achievement among secondary school students.

H₀₄: Student engagement does not significantly mediate the relationship between AI awareness and academic achievement among secondary school students.

Methodology

The present study employed a correlational approach to analyse associations between variables without manipulation, and a mediation model was used to investigate the indirect effect of AI awareness on academic achievement through student engagement.

The population comprised secondary school students from private schools in Gurugram, Faridabad, Panipat, Panchkula of Haryana., a context characterized by increasing exposure to AI-based educational technologies. A sample of **360 students** was selected, which is considered adequate for mediation and multivariate analysis (Cohen, 1992; Hair et al., 2019). This sample size ensured sufficient statistical power for correlation, regression, and mediation testing.

A **stratified random sampling technique** was used, with stratification based on class levels to ensure representation across grades. Within each stratum, participants were selected randomly; however, due to practical constraints, elements of convenience sampling were also involved during data collection.

The study included three variables: **AI awareness (independent variable)**, **student engagement (mediator)**, and **academic achievement (dependent variable)**. AI awareness was measured using the *Student AI Readiness Scale (SAIRS)*, a self-developed 50-item Likert-scale instrument assessing familiarity, perceived usefulness, confidence, and ethical awareness related to AI. Student engagement was measured using the scale developed by Fredricks, Blumenfeld, and Paris (2004), which captures behavioral, emotional, and cognitive dimensions of engagement. Academic achievement was assessed using students' actual examination scores obtained from school records, ensuring objectivity.

The instruments used were validated and reliable. The SAIRS underwent expert validation to ensure content relevance and clarity, and its reliability was established using Cronbach's alpha, indicating high internal consistency. The Student Engagement Scale is a widely validated instrument, and reliability analysis was also conducted within the present sample to confirm consistency.

Data collection was carried out in private schools in Gurugram after obtaining prior permission from school authorities. Questionnaires were administered in a structured manner during school hours, and clear instructions were provided. Academic achievement data were collected from school records with official approval.

Ethical guidelines were strictly followed throughout the study. Informed consent was obtained, and confidentiality and anonymity were maintained by excluding personal identifiers such as names and roll numbers. The data were used solely for academic purposes, and no harm or discomfort was caused to participants.

Mediation analysis was conducted using regression-based methods (Hayes, 2018) to examine both direct and indirect effects. All analyses were performed using SPSS, with significance tested at the 0.05 level, and effect sizes were reported to assess practical significance.

Findings of the study

Descriptive Statistics

Descriptive statistics were computed to examine the overall levels of AI awareness, student engagement, and academic achievement among secondary school students. The mean and standard deviation values provide an overview of students' responses across the three key variables.

The results indicate that students demonstrate a moderate to high level of AI awareness, suggesting that they are generally familiar with AI technologies and their applications in educational contexts. Similarly, student engagement levels appear to be relatively high, reflecting active participation, interest, and cognitive involvement in learning activities.

Academic achievement scores, obtained from school records, show a consistent performance pattern among students, indicating a balanced distribution of academic outcomes within the sample.

Table 1: Descriptive Statistics of AI Awareness, Student Engagement, and Academic Achievement

Variable	Mean	Standard Deviation
AI Awareness (SAIRS)	3.78	0.52
Student Engagement	3.65	0.48
Academic Achievement (%)	76.4	8.25

The descriptive statistics presented in Table 1 provide an overview of the levels of AI awareness, student engagement, and academic achievement among secondary school students.

The mean score for **AI awareness (M = 3.78, SD = 0.52)** indicates that students possess a relatively high level of awareness regarding artificial intelligence and its applications in education. This suggests that most students are familiar with AI tools and demonstrate a positive readiness to engage with such technologies in their academic activities.

Similarly, the mean score for **student engagement (M = 3.65, SD = 0.48)** reflects a moderately high level of engagement among students. This implies that students are actively involved in their learning processes, showing participation, interest, and cognitive investment in academic tasks.

In terms of **academic achievement**, the mean score (**M = 76.40, SD = 8.25**) indicates that students demonstrate a satisfactory level of academic performance. The relatively higher standard deviation suggests some variability in students' academic scores, which is expected in a diverse sample.

Overall, the findings suggest that students exhibit favorable levels of AI awareness and engagement, which may play a role in influencing their academic performance.

Correlation Analysis

Table 2: Pearson Correlation Matrix among AI Awareness, Student Engagement, and Academic Achievement

Variable	AI Awareness	Student Engagement	Academic Achievement
AI Awareness	1	0.48	0.36
Student Engagement	0.48	1	0.52
Academic Achievement	0.36	0.52	1

The Pearson correlation analysis presented in Table 2 examines the relationships among AI awareness, student engagement, and academic achievement.

The results indicate a **moderate positive correlation between AI awareness and student engagement ($r = 0.48$)**, suggesting that students with higher levels of AI awareness tend to be more actively engaged in their learning processes. This implies that familiarity and readiness to use AI technologies may encourage greater participation and involvement in academic activities.

A **moderate positive relationship was also observed between AI awareness and academic achievement ($r = 0.36$)**. This finding suggests that students who are more aware of AI technologies tend to perform better academically.

Furthermore, the strongest correlation was found between **student engagement and academic achievement** ($r = 0.52$), indicating a substantial positive relationship. This highlights that students who are more engaged in their learning are more likely to achieve higher academic performance.

Overall, the correlation results support the assumption that student engagement plays an important role in linking AI awareness with academic achievement.

Regression Analysis

Table 3: Regression Analysis – Effect of AI Awareness on Academic Achievement

Variable	Beta	t-value	p-value	R	R Square
AI Awareness	0.36	7.45	< 0.001	0.36	0.13

The regression analysis presented in Table 3 examines the impact of AI awareness on the academic achievement of secondary school students.

The results indicate that AI awareness has a significant positive effect on academic achievement ($\hat{\alpha} = 0.36$, $t = 7.45$, $p < .001$). This suggests that students with higher levels of AI awareness tend to perform better academically.

The coefficient of determination ($R^2 = 0.13$) indicates that AI awareness accounts for approximately 13% of the variance in academic achievement. Although this represents a moderate level of explanatory power, it nonetheless underscores that AI awareness is a meaningful predictor of academic performance.

These findings lead to the rejection of the null hypothesis ($H_0 1$), indicating that a statistically significant relationship exists between AI awareness and academic achievement.

Table 4: Regression Analysis – Effect of AI Awareness on Student Engagement

Variable	Beta	t-value	p-value	R	R Square
AI Awareness	0.48	10.12	< 0.001	0.48	0.23

The regression analysis presented in Table 4 examines the impact of AI awareness on student engagement among secondary school students.

The results indicate that AI awareness has a significant positive effect on student engagement ($\hat{\alpha} = 0.48$, $t = 10.12$, $p < .001$). This suggests that the higher the level of AI awareness among students, the more likely they are to be actively involved in their learning processes.

The coefficient of determination ($R^2 = 0.23$) indicates that AI awareness explains approximately 23% of the variance in student engagement, signaling a moderate level of explanatory power. This finding underscores the significant role that AI awareness plays in influencing students' behavioral, emotional, and cognitive participation in academic activities.

Based on these results, the null hypothesis ($H_0 2$) is rejected, indicating that a statistically significant relationship exists between AI awareness and student engagement.

Table 5: Regression Analysis – Effect of Student Engagement on Academic Achievement

Variable	Beta	t-value	p-value	R	R Square
Student Engagement	0.52	11.38	< 0.001	0.52	0.27

The regression analysis presented in Table 5 examines the impact of student engagement on academic achievement among secondary school students.

The results indicate that student engagement has a significant positive effect on academic achievement ($\beta = 0.52$, $t = 11.38$, $p < .001$). This suggests that students who remain more actively involved in their learning processes generally achieve higher academic performance.

The coefficient of determination ($R^2 = 0.27$) indicates that student engagement accounts for approximately 27% of the variance in academic achievement; this represents a relatively stronger predictive relationship compared to AI awareness alone. This highlights the critical role of ‘engagement’ as a key factor influencing students’ academic success.

Based on these findings, the null hypothesis (H_0 3) is rejected, thereby confirming the existence of a statistically significant relationship between student engagement and academic achievement.

Mediation Analysis

Table 6: Mediation Analysis – Indirect Effect of AI Awareness on Academic Achievement through Student Engagement

Effect Type	Effect Value	SE	t-value	p-value
Direct Effect (AI Awareness → Academic Achievement)	0.18	0.04	4.25	< 0.001
Indirect Effect (AI Awareness → Engagement → Achievement)	0.25	0.03	6.8	< 0.001
Total Effect	0.43	0.05	8.6	< 0.001

The mediation analysis presented in Table 6 examines whether student engagement mediates the relationship between AI awareness and academic achievement.

The results indicate that the **direct effect of AI awareness on academic achievement remains significant** ($\beta = 0.18$, $t = 4.25$, $p < .001$), suggesting that AI awareness independently contributes to academic performance.

More importantly, the **indirect effect of AI awareness on academic achievement through student engagement is also significant** ($\beta = 0.25$, $t = 6.80$, $p < .001$). This indicates that AI awareness enhances student engagement, which in turn improves academic achievement.

The **total effect** ($\beta = 0.43$, $p < .001$) further confirms that AI awareness has an overall significant influence on academic achievement when both direct and indirect pathways are considered.

Since both direct and indirect effects are significant, the findings indicate **partial mediation**. This means that student engagement partially explains the relationship between AI awareness and academic achievement, but AI awareness also has a direct impact on academic performance.

Based on these results, the null hypothesis (H_0) is rejected, confirming that student engagement significantly mediates the relationship between AI awareness and academic achievement.

Discussion of Results

The present study investigated the relationships among AI awareness, student engagement, and academic achievement among secondary school students, with particular emphasis on the mediating function of student engagement. The findings offer meaningful insights into the manner in which technological awareness interacts with behavioral factors to influence educational outcomes.

The descriptive results indicate that students demonstrate a comparatively high level of AI awareness. This suggests that secondary school students in Gurugram are increasingly exposed to AI technologies and are capable of identifying their relevance and applications within educational settings. This observation is consistent with earlier research, which highlights the growing integration of AI-based tools in students' learning environments (Long & Magerko, 2020).

The results of the correlation analysis revealed significant positive associations among AI awareness, student engagement, and academic achievement. Notably, the strong relationship between student engagement and academic performance underscores the critical role of engagement in facilitating effective learning. This finding is supported by prior studies, which have consistently shown that higher levels of engagement are associated with improved academic outcomes (Fredricks et al., 2004; Kuh, 2009).

Moreover, the regression analysis indicated that AI awareness serves as a significant predictor of both student engagement and academic achievement.

A key contribution of this study is the identification of student engagement as a mediating factor in the relationship between AI awareness and academic achievement. The findings indicate a partial mediation effect, suggesting that AI awareness affects academic performance both directly and indirectly through student engagement.

The significant indirect pathway demonstrates that students with higher levels of AI awareness are more likely to exhibit active involvement in learning activities, which subsequently enhances their academic outcomes. This implies that mere awareness of AI technologies is insufficient to improve performance; rather, it is the extent to which students engage with learning tasks that determines the effectiveness of such awareness in producing meaningful academic gains.

These findings are consistent with Social Cognitive Theory, which highlights the dynamic interaction between personal factors, behavioral engagement, and outcomes. Students who possess a strong understanding of AI tools and confidence in their use are more inclined to participate actively, invest effort in learning processes, and apply these technologies effectively in academic contexts.

In addition, the results align with Constructivist Learning Theory, which conceptualizes learning as an active and participatory process. AI-based tools can facilitate this process by offering adaptive, interactive, and personalized learning experiences. However, the benefits of such technologies are contingent upon students' level of engagement, as passive use may limit their educational impact.

The evidence of partial mediation further suggests that AI awareness independently contributes to academic achievement, even in the absence of high engagement. Nevertheless, the influence of AI awareness is significantly strengthened when students are actively engaged in learning activities.

Overall, these findings provide a more nuanced understanding of how AI awareness translates into academic success, emphasizing the pivotal role of student engagement as a key mechanism in this relationship.

Conclusion

The present study examined the relationship between artificial intelligence (AI) awareness, student engagement, and academic achievement among secondary school students in Haryana. The findings indicate that students possess a relatively high level of AI awareness and engagement, reflecting their growing exposure to and interaction with AI-based educational technologies.

The study revealed that AI awareness has a significant positive impact on academic achievement. More importantly, student engagement was found to play a crucial mediating role in this relationship. The results demonstrate that while AI awareness directly contributes to academic performance.

The findings support a **“complementarity perspective”**, where AI awareness alone is not sufficient to improve academic outcomes; rather, it must be accompanied by active student engagement. This highlights the importance of integrating technological awareness with pedagogical strategies that promote student involvement and participation.

Overall, the study provides empirical evidence that AI awareness, when combined with high levels of engagement, can contribute to improved academic achievement. It underscores the need for a balanced approach to AI integration in education, where technology serves as a tool to enhance learning rather than replace active student participation.

References

- Bond, M., et al. (2020). Emergency remote teaching in higher education: Mapping the first global online semester. *International Journal of Educational Technology in Higher Education*, 17(1), 1–24.
- Bryant, J., et al. (2020). *How artificial intelligence will impact K–12 teachers*. McKinsey & Company.
- Chassignol, M., et al. (2018). Artificial intelligence trends in education: A narrative overview. *Procedia Computer Science*, 136, 16–24.
- Chen, L., et al. (2020). Artificial intelligence in education: A review. *IEEE Access*, 8, 75264–75278.
- Fredricks, J. A., et al. (2004). School engagement: Potential of the concept, state of the evidence. *Review of Educational Research*, 74(1), 59–109.
- Greene, B. A. (2015). Measuring cognitive engagement with self-report scales: Reflections from over 20 years of research. *Educational Psychologist*, 50(1), 14–30.
- Hwang, G. J., et al. (2020). Vision, challenges, roles and research issues of artificial intelligence in education. *Computers and Education: Artificial Intelligence*, 1, 100001.
- Kuh, G. D. (2009). The National Survey of Student Engagement: Conceptual and empirical foundations. *New Directions for Institutional Research*, 2009(141), 5–20.

- Long, D., & Magerko, B. (2020). What is AI literacy? Competencies and design considerations. *Proceedings of the 2020 CHI Conference on Human Factors in Computing Systems*, 1–16.
- Luckin, R., et al. (2016). *Intelligence unleashed: An argument for AI in education*. Pearson.
- Ng, W. (2012). Can we teach digital natives digital literacy? *Computers & Education*, 59(3), 1065–1078.
- Regan, P. M., & Jesse, J. (2019). Ethical challenges of AI in education. *AI & Society*, 34(3), 485–495.
- Skinner, E. A., et al. (2008). A motivational perspective on engagement and disaffection. *Educational and Psychological Measurement*, 68(3), 493–525.
- Venkatesh, V., et al. (2012). Consumer acceptance and use of IT: Extending the unified theory. *MIS Quarterly*, 36(1), 157–178.
- Zawacki-Richter, O., et al. (2019). Systematic review of research on artificial intelligence applications in higher education. *International Journal of Educational Technology in Higher Education*, 16(1), 1–27.

ACADEMIC ANXIETY AMONG GOVERNMENT AND PRIVATE SCHOOL STUDENTS IN SOUTH KASHMIR: A QUANTITATIVE STUDY OF GENDER, SOCIO-ECONOMIC STATUS, AND SCHOOL ENVIRONMENT

Arshid Ahmad Sheergojeri & Dr. Kiran Mishra (Dean)

¹Research Scholar, ²Faculty of Education, Rabindranath Tagore University, Raisen, MP

Abstract

This study employs a quantitative research design to explore academic anxiety among government and private school students in South Kashmir, focusing on disparities related to gender, parental involvement, and socio-economic status. The study participants comprised 400 students who were selected using a high statistical realistic stratified random sampling technique whereby the students were selected based on school type and gender. These are academic pressure, parental expectations, school facilities, and peer competition as variables that were assessed. It is evidenced that there are differences not only in anxiety as related to the choice of schools but also gender, where young people studying in private schools have higher anxiety aggravated by the competitiveness of education and high expectations from parents, especially girls. The government school students demonstrated a slightly elevated state of anxiety but had constraints arising from poor supplied schools and limited tutor assistance. According to descriptive statistics, the data confirmed that the groups' ANOVA results in a statistically significant contribution ($F = 94.70, p < 0.00001$). Statistical analysis shows that self-expected pressures and perceived pressure from peers significantly forecast Academic anxiety that accounts for 48% of the variability. The findings of the study call for more particular approaches, from counselling, training teachers, and stress-relieving programs, among others. We also need gender sensitive support and better infrastructure in government schools also. They are however limited by the cross sectional approach as well as the use of self-reported information; the authors recommend the use of longitudinal studies in the future. Thus, the study adds knowledge to academic anxiety and provides practical directions for educators and policymakers in South Kashmir.

Keywords: Academic anxiety, government schools, private schools, South Kashmir, gender disparities, parental expectations, and educational resources.

Introduction

Academic anxiety is a pervasive issue affecting students worldwide, impacting their academic performance, emotional well-being, and overall development. As with other school

the level of anxiety in school system depends on various factors that include type of school, socio-economic status, parents' involvement and resource status. Such differences can be vividly observed in South Kashmir as the area in question consists of schools that are quite different from one another due to socio-cultural and economical specific features of the region. It is significant for foresting and identifying the issues underneath academically anxiousness in this region.

On the basis of categorization of schools, the role between government school and private school in South Kashmir exhibit socio economical divide. Government schools were designed for students of rural or low-income areas; many schools are poorly equipped, understaffed, and have limited learning materials. These

aspects can further intensify student's academic self-perceived incompetence and academic anxiety. However, most private schools, which admit students from better-off families, give students better facilities and utilities, compact class strength and healthy competition in academics. On the other hand, the following are some of the gains; heightened parents' expectations, and serious rivalry from fellow students which may lead to anxiety.

Perceived control, academic overload, and class attendance are among the research interest focus on the effects on students' academic stress. The Research also found on factors such as; poor parental involvement, non-availability of resources, and socio economic factors that affect the anxiety levels of the government school students. In contrast, learners attending private schools are pressured by factors arising from high academic standards and competitiveness, therefore stressful. Such experiences means that there is a reason to look for the influence of the school type on the experience of academic anxiety.

Sex is another important predictor of academic stress. The study reveals that female students are easily stressed than male students due to cultural norms, examination stress, and gender predisposition in classroom. Such a gender disparity is much more evident in centres like South Kashmir where the cultural setting influences students' experience in the institution.

Even though there is emerging literature on academic anxiety, there was scant literature focusing on the comparative analysis of government and private school students in South Kashmir. The socio-political conditions of the region for learning and teaching, combined with disparities in educational hardware and software, make it difficult to determine sources of academic anxiety. Although the patterns of parental involvement with children, the environment provided in schools and socio-economic status have been discussed in research individually or in combination with gender the analysis of the how gender and school type affects the above factors has not been adequately explored.

This study aims at filling this research gap by examining the academic anxiety of students in the South Kashmir in both government and private schools with regard to gender, parental attitudes, and expectations as well as socio-economic status. By comparing one country with another, the study hopes to make a comprehensive list of reasons that cause academic anxiety in the region. The results are expected to inform the manifestation of intervention strategies tailored for decreasing anxiety levels as well as enhancing academic support.

Therefore, in the understanding of context of South Kashmir, amelioration of academic anxiety is not only a responsibility towards enhancing individual learner performance but also a responsibility toward equity and social justice. The findings from this study hope to assist in modifying educational policies that every child should have the chance of learning in school academically and socially.

Literature Review

Educational stress has been investigated in detail in relation to students outcomes and can be identified as an important predictor of students' performance and psychological state within numerous educational frameworks. The following review aims to explore the socio economic indicators, school environment and gender differences regarding academic stress with special attention to south Kashmir. These factors are then underscored by empirical findings acquired across various contexts and recommendations for specific interventions are made.

Gender, age, socio-economic status and course level affect student academic stress; students with a low SES reported higher academic stress as they lack adequate resources to meet their needs. In his/her study, Siddiqui and Rehman (2014) established that there was difference in aspiration and adjustment with SES difference in students and they get stressed in low resource conditions. Also, Song (2023) pointed out that in spite of advancement in economic development has promoted education in rural China, the distribution of resources

still widens educational inequality – SES and anxiety.

On the other hand, students from higher classes have stress associated to high performers' expectation and competitive academic systems (Elmelid et al., 2015). These results also amplify both the social and economic challenges which students from both the low and high end of the economic stratum are grappling with.

Engagement is fundamental to academic anxiety, and interaction either enhances or worsens the condition based on societal expectations. Cooper and Sánchez (2016) showed that fostering parental involvement promotes the reduction of anxiety in school environments considered of low resources. But Siddiqui and Rehman (2014) established that excessive demands from parents in high pressure private schools result to increased stress within students thus the call for moderate involvement.

Gender is an essential factor that defines the level of academic anxiety, and females are most likely to be more anxious than male students. Borgonovi and Han (2020) pointed out fear of failure as a core reason leading to this disparity, especially on high achievers among female learners within competitive academic. Most of the knowledge I have presented in this paper has been sourced from the Borgonovi and Han (2020) research article. This pattern is supported by Sahu and Jha (2014) where they pointed out that culture and society play a role in increase of anxiety among females.

Infrastructure quality and resource availability dominated to explain students' academic experiences and anxiety. Das et al. (2014) noted that due to the poor infrastructure in government schools that most of the students suffer from increased levels of stress. In contrast, private schools that are better endowed develop high-stress contexts that aggravate the intensity of anxiety because of rivalry with peers as well as performance demands (Lim & Meer, 2017).

The study also establishes that peer competition affects academic anxiety than teacher competition because most students in private schools are under immense pressure to succeed. According to Elmelid et al. (2015), anxiety can be moderated by positive teacher student relationship and positive peer relationships in School. Thus, organizational environments that set great store by rivalry rather than teamwork tend to increase stress indices.

Students engage in different strategies with which they cope up with the existing academic anxiety as a result of their socio-economic status and/or school environment. Das et al (2014) pointed out that learners in resource poor schools use peer and teacher support for

learning whereas learners in the USE top private schools in this study employed avoidant coping strategies which are less effective. Borgonovi and Han (2020) explained that these gaps should be closed through gender-responsive interventions in order to intervene.

Despite these advances, important questions which should be addressed by future research continue to linger. Little research has been done on how socio-economic environments, gender, and environments in school are related with respect to ethnic minority groups in South Kashmir. Further, there is limited understanding of how coping resources can be implemented in producing beneficial effects in various kinds of schools. Thus, the purpose of this research will be to fill those gaps and outline the prescriptive approaches to combating academic anxiety.

This review highlights the importance of addressing these gaps to provide a nuanced understanding of academic anxiety in South Kashmir. The findings of this study aim to inform targeted interventions that improve student well-being and academic outcomes in both government and private schools

Hypotheses

Based on the above discussion, the following hypotheses are proposed:

- **H1:** Socio-economic status, gender, and school environment significantly influence academic anxiety levels among students in South Kashmir.
- **H2:** Targeted interventions, including parental education and school-based counseling, can effectively reduce academic anxiety in both government and private schools.

Methodology

This study utilises a quantitative research paradigm to determine the academic anxiety of government and private school students of south Kashmir. The quantitative research approach is relevant in this research because it allows for the collection of numbers, makes it easy to determine the correlation between the variables of interest and develop hypotheses. By following this approach, different causes of academic anxiety in the region are examined systematically and objectively.

Sample Size and Sampling Method

The study sample consists of four hundred students, two hundred from the government schools and the other two hundred from private schools. In this study, a stratified random sampling technique was used to maintain the gender and school type's proportionality. Thus, the sample includes 100 boys and 100 girls of each type of school in order to reveal gender aspects of academic anxiety. This approach enables the study to generalize the results to the other students in the population of South Kashmir.

Variables

The variables for this study are developed from the literature and are designed to capture different facets that relate to academic anxiety. The key variables include:

- **Academic Pressure:** Assesses the perceived pressure with regard to examinations, grading, and assignments that are within the student population.
- **Parental Involvement:** Assesses to evaluate the level and type of involvement that the parents have regarding the practices of their childhood education.
- **Socio-Economic Status (SES):** Examples are family income, parents' education level and their occupation among others.
- **School Infrastructure:** Assesses the structural integrity and compliance of such infrastructures as classes, libraries, and laboratories.
- **Peer Competition:** Reflects the level of rivalry among student in academics.
- **Gender:** Focuses on gender differences in level of academic related anxiety.

Data Collection

In order to assess the manifestation of academic anxiety and its potential antecedents, an organized self-generated questionnaire was used. To ensure it contained adequate internal consistency and validity, the details contained in the developed questionnaire were validated during a pilot study. It included pre-structured closed

questions to capture categorical data and broad post-structural open-ended questions to explain the experience and attitude of the participants towards such events. The questionnaire was completed face to face by qualified research assistants in different schools in South Kashmir to offer uniformity as well as to increase the response rates.

Data Analysis

The data that has so been collected was analyzed using statistical techniques used in quantitative research. Quantitative measures, including means, standard deviations and frequency distribution tables were used to depict the respondents' characteristics and their level of anxiety. Inferential statistical techniques were employed to test the hypotheses:

- **T-tests:** To compare the differences in anxiety within the boys and girls of the sample when segregated by the school type.
- **ANOVA:** To determine the level of anxiety of the five groups which are government school boys, government school girls, private school boys and private school girls.
- **Regression Analysis:** To quantify parental involvement, socio-economic status, peer competition, and other variables on a ratio scale and therefore make comparison on the level of academic anxiety.

Ethical Considerations

The study faithfully followed the-guidelines of ethical research. Permission was sought from the students as well as their parents before the students could be included in the study. There was non-coercion and anonymity in the data collection and analysis process to maintain the confidentiality of the respondents. Also, participants were reminded of their withdrawal right from the study at any time without being penalized.

Therefore, this strong paradigm of quantitative research methodology in addition to stratified sampling procedure and variables provides for substantial account of the antecedent variables to academic anxiety. The study will help in designing specific activities to lessen learners' anxiety and enhance their psychological and emotional health in South Kashmir region.

1. Results

1.1 Descriptive Statistics

The descriptive statistics provide a detailed overview of the key variables in the study, as shown in Table 1. Mean is used to determine the centrality of each variable, meaning that it indicates the level of response typical of each variable, and SD reveals the degree of dispersion of the responses. As for academic anxiety, the mean of the scores gained by respondents is 15.1 the results leaning towards moderate anxiety among the participants in general. Students of private schools show higher mean score (16.9) compared with the government school students (14.4), in other words, higher level of anxiety is found among the private school students. Parental involvement has a mean of 3.5 representing moderate involvement with private school students having a higher level of high involvement (40%). The perceived level of competition from peers is at a mean of 4.0 with 4 out of 9 of the respondents considering competition mean high. SES has a mean score of, 3.3 with 50 percent of the people in the middle SES index.

Table 1: Summary of Descriptive Statistics

Variable	Mean (X)	Standard Deviation (Y)	Frequency Distribution
Academic Anxiety	15.1	2.3	Low: 15%, Moderate: 50%, High: 35%
Parental Involvement	3.5	0.8	Low: 30%, Moderate: 40%, High: 30%
Peer Competition	4.0	0.9	Low: 20%, Moderate: 35%, High: 45%
Socio-economic Status	3.3	1.1	Low: 30%, Middle: 50%, High: 20%

1.2 Inferential Statistics

In order to check if there is any significant difference in academic anxiety between government and private school students' t-test was used. The results also highlighted the difference between private and government school was statistically significant; private school students were more anxious (mean = 16.9; SD = 1.7) than government school students (mean = 14.4; SD = 2.1). Significant difference exists between Anxiety levels of students belonging to different types of schools the t-value found is 8.47 and p-value is <0.001.

Table 2: T-test Results for Academic Anxiety Between Government and Private School Students

Group	Mean Academic Anxiety	Standard Deviation	Sample Size (n)
Government Schools	14.4	2.1	200
Private Schools	16.9	1.7	200
t-value	8.47		
p-value	< 0.001		

ANOVA Results

ANOVA was used to compare academic anxiety across four groups: government school boy, government school girl, private school boy, and private school girl. These have shown the significant difference and private school girls have the highest Level of anxiety (Mean=16.9) while Government school boys have the least Level of anxiety (Mean=12.8). The F-value is

94.70 and p-value is < 0.001 hence shows that there are significant difference within the groups.

Table 3: ANOVA Results for Academic Anxiety Across Gender and School Type

Source of Variation	Sum of Squares (SS)	Degrees of Freedom (df)	Mean Square (MS)	F-Value	p-value
Between Groups	903.31	3	300.44	94.70	< 0.001
Within Groups	1256.28	396	3.17		
Total	2157.59	399			

Regression Analysis

Parental involvement, socio-economic status, peer competition and academic anxiety were also regressed to reveal predictors of academic anxiety. The analysis of the coefficients shows that the peer competition variable

has the highest coefficient of 4.2, while the parent engagement and SES have 3.7 and 2.8, respectively. Analysis of the findings revealed that all the predictors were statistically significant on Academic Anxiety. The obtained R-squared of 0.48, reveals that these predictors accounted for 48% of the variance of academic anxiety.

Table 4: Regression Analysis of Academic Anxiety

Predictor Variable	Coefficient (β)	Standard Error (SE)	t-value	p-value
Intercept	10.0	1.2	8.33	< 0.001
Parental Involvement	3.7	0.9	4.11	< 0.001
Socio-economic Status	2.8	1.1	2.55	0.011
Peer Competition	4.2	1.0	4.20	< 0.001
R-squared	0.48			

2. Discussion, Implications, and Limitations

1.3 Discussion

The results of this research support the existing literature on large difference in academic stress between government and private school students in South Kashmir. This section first analyzes the findings in the context of the prior scholarly work, followed by some broader reflections.

Thus, the descriptive statistics show that? Private school students express higher level of academic anxiety, (M=16.9) compared to government school students, (M=14.4) $\wedge$. Such results conform with the evidence indicating that in the private schools, trainees are exposed to competitively intensive learning settings and high parental pressure that encourage anxiety (Ramos et al., 2014). On the other hand, student in government schools though has less pressure from competition is anxious from the government schools lacking resources and academic support (Opoku-Asare & Siaw, 2015).

Sex differences are also well-defined. The anxious scores were highest among the private school girl students (mean= 16.9) while the boys of the government school showed the lowest score on the anxiety (mean= 12.8). This result echoes with findings by (Tayyaba, 2012) that illustrates how gender roles and perceived academic demands prey on female students far much more than male students especially where resource is not tight as is the case with private schools. (Bécares & Priest, 2015)

The inferential statistics support these differences as well. The t- test results also indicate a significant departure in the level of anxiety between government school students and private school students which equals to 8.47 and has a significance level of 0.000 ($p < 0.05$). Using ANOVA, the analysis shows that there is a statistically significant difference on the responses of the four groups ($F = 94.70$, $p < 0.001$) Gender and type of school comes out as factors that can be highly influential. Therefore, these studies support arguments that academic anxiety cannot be fully understood with consideration of institutional and socio - cultural factors only (Logan & Burdick-Will, 2017).

By using the regression equation, parental involvement, peer competition, and socio- economic (SES) emerged as the predictors of academic anxiety and the adjusted R-squared indicated that 48% of the variance in the dependent variable was accounted for by the independent variables in the model. Peer competition had the strongest impact ($\hat{\alpha} = 4.2$, p-value

< 0.001), followed by parental involvement ($\hat{\alpha} = 3.7$, p-value < 0.001) and SES ($\hat{\alpha} = 2.8$, p- value = 0.011)

(Khan et al., 2018). These findings align with prior research, which highlights the interplay of these factors in exacerbating anxiety (Echazarra & Radinger, 2019).

The results suggest that while private school students benefit from better resources and parental involvement, these advantages come with heightened academic pressures. Conversely, government school students, though less anxious overall, face challenges related to socio-economic disadvantages and lack of institutional support, which warrant attention.

Implications

The findings have significant implications for educational practice, policy, and future research.

1. Policy and Practice:

- **Counselling and Stress Management:** It is clear that schools are required to arrange normal counselling sessions and stress lifting awareness campaigns so that the students most especially the girls in private schools are able to deal with the pressure that is exerted on them by their schools.
- **Gender-Sensitive Support:** These challenges can be solved by conducting gender-targeted programs, where the members are male or female students only, and gender-specific workshops for female students.
- **Parental Awareness Programs:** By explaining the concept of balanced expectations to parents, and making them aware of the roles they play in suggesting solutions to student's emotions-related problems, makes anxiety levels among students to come down drastically.

2. Educational Environment

- **Resource Allocation:** The authors state that condition can be alleviated by increasing physical infrastructure and academic support in government schools.
- **Peer Support Networks:** Coaching and peer support groups can offer support to the students, and more especially in times of lots of pressure.

3. Policy Recommendations:

- **Reducing Competition:** The government should ascend to influence main private school to employ a more comprehensive form of learning that is based on personal attributes as well as scholarship.
- **Teacher Training:** Training the faculty to identify and respond to indications of anxiety in a learning setting may reduce pressures among learners.

4. Future Research:

It is therefore possible to get the effects of intervention after some time from the time they were made through the use of longitudinal studies. Moreover, it can be useful to use qualitative research to get the perception of the students on the studied effects which can supplement the quantitative results. Research conducted on other regions can inform a comparison that would lead to vesting out successful solutions fitting the social structure of South Kashmir.

Conclusion

This research documents a high level of academic stress among students of government and private schools in South Kashmir with variations on account of gender, socio-economic status and environment factors. These

disparities mean that the management of anxiety needs specific strategies to support learners and promote the learning environment. Educators and policymakers can ensure both quality teaching and learned experiences, as well as more equal and less stressful schooling for all children by upgrades of school infrastructure, balanced parental involvement, and better teacher preparation. Future studies should focus on the limitations specified according to clinical understanding and application.

References

- Bécaries, L., & Priest, N. (2015). Understanding the influence of race/ethnicity, gender, and class on inequalities in academic and non-academic outcomes among eighth-grade students: Findings from an intersectionality approach. *PLoS ONE*, 10, e0141363.
- Borgonovi, F., & Han, S. (2020). Gender disparities in fear of failure among 15-year-old students: The role of gender inequality, the organization of schooling, and economic conditions. *Journal of Adolescence*, 86, 28-39.
- Cooper, A. C., & Sánchez, B. (2016). The roles of racial discrimination, cultural mistrust, and gender in Latina/o youth's school attitudes and academic achievement. *Journal of Research on Adolescence*, 26(4), 1036-1047.
- Das, S., Halder, U. K., & Mishra, B. (2014). A study on academic anxiety and academic achievement on secondary level school students. *Journal of Education and Practice*, 4(1), 1-5.
- Echazarra, A., & Radinger, T. (2019). Rural-urban differences in academic performance: Analyzing data from PISA and TALIS. *OECD Working Papers*.
- Elmelid, A., Stickley, A., Lindblad, F., Schwab-Stone, M., Henrich, C. C., & Ruchkin, V. (2015). Depressive symptoms, anxiety, and academic motivation in youth: Do schools and families make a difference? *Journal of Adolescence*, 45, 174-182.
- Khan, A., Aziz, S., & Anwar, H. (2018). Role of socio-economic factors in student anxiety and performance: Insights from rural Pakistan. *Educational Development Journal*.
- Lim, J., & Meer, J. (2017). The impact of teacher–student gender matches. *The Journal of Human Resources*, 52(4), 979-997.
- Logan, J. R., & Burdick-Will, J. (2017). School segregation and academic anxiety in urban and rural settings. *Sociology of Education*, 90(3), 213-231.
- Opoku-Asare, K., & Siaw, M. (2015). Infrastructural challenges and academic anxiety in urban and rural Ghanaian schools. *International Journal of Educational Research*.
- Ramos, M. M., Jones, C. L., & Peskin, M. F. (2014). Disparities in educational access and quality: A case study of rural school nursing in New Mexico. *Journal of School Health*, 84(1), 11-20.
- Sahu, S., & Jha, M. (2014). Role of culture and sex in academic anxiety.
- Siddiqui, M. A., & Rehman, A. U. (2014). An interactional study of academic anxiety in relation to socio-economic status, gender, and school type among secondary school students.
- Song, L. (2023). The relationship between economic development and educational resources in rural China. *International Journal of Educational Development*.

From Vision to Practice: A Study of Challenges Encountered by teacher educators in integrating ICT in teaching-learning

Dr. Tarandeep Kour

Research Scholar

Department of Educational Studies, Central University of Jammu

Dr. Sunita Devi

Assistant Professor

Government Degree College, Purmandal

ABSTRACT

The integration of ICT has made an ample influence on enhancing the quality of education by transforming the modern education. Despite its potential, teacher educators encounter several challenges in effectively incorporating ICT into teaching-learning processes. The present study intends to examine the opinion of teacher educators regarding ICT integration and to analyze differences made on the basis of gender, age and teaching experience. Further, its objective is to detect the key challenges encountered by the teacher educators while incorporating ICT into the teaching-learning process. A descriptive survey method was employed. The populace of the current study consists of all teacher educators of 48 B.Ed. Colleges of Education affiliated with the University of Jammu and the sample selected was 100 teacher educators of 24 (50%) Colleges of Education by using simple random sampling technique. The tools employed were Likert Scale and Structured Interview schedule. Results of the paper indicated that majority of the teacher educators were in favor of using ICT while delivering lessons. No significant gender difference was observed. However, age and teaching experience do have impact on their opinion towards ICT integration. Furthermore, challenges included were inadequate ICT infrastructure, lack of technical support, lack of motivation, limited internet access, time constraint for delivering the ICT based content, and lack of interest of students to learn through ICT based platforms.

KEYWORDS: *B.Ed. Colleges, Learning, Challenges, Information and Communication Technology, Teacher Educators*

INTRODUCTION

The 21st century brings new challenges and demands for the education system globally, especially in the training and professional development of teachers (**AbdulRab, 2023**). **Homiakova, Arras, and Kozik (2017)** asserted that the use of ICT is the sole advanced feature for dissemination of knowledge in teaching-learning process in most efficient manner. In the twenty-first century there has been seen a remarkable transformation driven by technological innovations, reshaping industries and our daily lives (**Yamin, 2019**). Rapid advancements in ICT have necessitated a shift in pedagogical practices to meet the evolving needs of learners in an increasingly digital world (**Mthembu et al., 2023**). **Dawes (2001)** stated that ICT in teaching has the potential to transform educational practices by enhancing interactivity, engagement, and the accessibility of learning resources.

In response to these changes, many countries have undertaken initiatives to modernize their education systems and unified ICT in teaching-learning. The acronym ICT stands for “Information and Communication Technology”

and encompasses a broad range of tools and resources used to transmit, store, create, share, or exchange information (**UNESCO, 2002**). It has emerged as one of the most widely used terms in both academia and the information industry due to its pervasive influence on all aspects of human activity.

It has aided people from all aspects of life in many ways. The process of collecting, storing, handling and communicating into the expected forms of information in a specific scientific manner is known as information technology. Both technologies- computer and communication are the two primary foundation of this technology, and their influence on the storage and dissemination of information is crucial. Our lives have been significantly impacted by ICT, and all of us are adapting to this transformation. **Mishra & Rajendra (2008)** as quoting the definition of ICT given by United Nations have said, “As per the definition used by United Nations, ICT can be described as a varied set of goods, applications and services used to produce, store, process, distribute and exchange information. They include both the most familiar technologies of television, radio and telephone and the relatively newer ones - personal computers, mobile phones, satellite and wireless technologies and the Internet”. National Curriculum Framework (**NCF, 2005**) pronounces, “Information and communications technology is an essential tool for bridging social divides. The information and communications technology (ICT) should be utilized in a manner that it provides an alike opportunity of accessing the resources of communication, information, and computing in remote areas too”.

The use of ICT in teacher-education augments instructional effectiveness by integrating digital tools, multimedia resources, and online platforms to improve teaching-learning processes. It also develops teacher educators’ digital competence, enabling innovative pedagogy, collaborative learning, and efficient assessment practices. Explaining the importance of ICT in the advancement of teacher education, **Sahoo & Namita (2009)** has conveyed, “Teacher education institutions may either take the lead in transforming education or be left behind in the whirlwind of rapid technological development. To enjoy the full benefits of ICTs in learning, pre-service and in-service teachers must have fundamental ICT skills and abilities. Teacher education institutions and programmes must provide leadership for pre-service and in-service teachers, as well as model new pedagogies and learning tools”. ICT has now become the part and parcel of our lives. It generates new knowledge by accessing, choosing, organizing, and analyzing information and data. Everyone—students, teachers, policymakers, and curriculum planners—needs access to information and communications technology (ICT) as it provides technical support and monitor functions of organizations smoothly. The incessant dependence on ICT propels the educational administrators to take up the necessary measures to cope up with future challenges for ameliorating the standard of teaching-learning. **Balanskat, Blamire & Kefala (2006); Kennedy (2023)** argue that although teachers appear to acknowledge the value of ICT in schools, they continue encountering obstacles during the processes of adopting these technologies into their teaching and learning. **Habibu et al. (2012)** revealed that teachers are volunteer to integrate ICT into teaching-learning even though facing difficulties. Lack of computers, low speed internet, lack of skills to integrate ICT in teaching, unavailability of latest ICT equipment’s are some of the problems teachers faced while merging the ICT in pedagogy.

A number of researches undertaken in this area have shown that although teacher educators are cognizant of the anticipated benefits of ICT in teacher education, but merely few of them actually use technology in their teaching due to lack of skills or unavailability of resources. So, keeping in mind the related literature, investigators have decided to conduct a survey. Additionally, keeping in mind the time factor, investigators has decided to delimit the study to the Government B.Ed. colleges of Jammu division only. Very few studies have been conducted in order to know the opinion of teacher educators on the incorporation of ICT in the pedagogy of B.Ed. colleges of Jammu division.

The following objectives guided the study:

1. To assess the teacher educators opinion towards the incorporation of ICT in teaching.
2. To find out the opinion of the teacher educators towards the amalgamation of ICT in teaching with respect to their gender.
3. To discover the teacher educator's opinion towards the integration of ICT in teaching with respect to their age.
4. To discern the opinion of the teacher educators towards the integration of ICT in teaching with respect to their teaching experience.
5. To explore the challenges faced by the teacher- educators while incorporating ICT during teaching.

PROBLEM STATEMENT

Despite the growing emphasis on digital literacy and the extensive adoption of ICT in various sectors, its effective integration into the teaching-learning process remains a significant challenge in teacher education. While ICT has the potential to revolutionize pedagogy by enhancing accessibility, interactivity, and learner engagement, many teacher educators continue to face systemic, infrastructural, and pedagogical barriers in its implementation (**Aidoo and Chebure, 2024**). These challenges include limited access to technological resources, inadequate training in ICT pedagogy, resistance to change, and a lack of institutional support. In developing countries, the digital divide further exacerbates these issues, restricting equitable access to quality education and undermining national efforts to modernize the educational landscape. Although national frameworks like the NCF (2005) and global institutions such as UNESCO advocate for the integration of ICT to bridge educational disparities, there exists a gap between policy intent and ground-level practices in teacher education institutions.

Understanding the specific challenges faced by teacher educators in incorporating ICT into their professional practice is crucial for designing effective interventions, curricula, and support systems. This research aims to explore the challenges, identify gaps in current practices, and offer insights into how ICT can be more productively unified into teacher education programs.

HYPOTHESIS OF THE STUDY

1. There will be no substantial difference in the opinion of teacher educators towards the integration of ICT in teaching with respect to their gender.
2. There will be no substantial difference in the opinion of teacher educators towards the integration of ICT in teaching with respect to their age.
3. There will be no substantial difference in the opinion of teacher educators towards the integration of ICT in teaching with respect to their teaching experience.

METHODOLOGY OF THE STUDY

In this paper, a descriptive survey method was applied. The descriptive survey method focuses primarily on the current situation, while also taking into account past occurrences and their impact on present conditions (**Best & Kahn, 2006**).

Population and Sample

There are total 48 B.Ed. Colleges of Education affiliated with the University of Jammu. In the present study, the population comprised of all the teacher educators of these colleges. The sample of the current study was chosen by adopting the simple random sampling technique. The final sample comprised of 100 teacher educators drawn from 24 Colleges of Education, representing 50% of the total affiliated institutions.

Tools Used

For accomplishing the formulated objectives in the present study, the investigators constructed a research tool such as Likert Scale to measure the opinion of the teacher educators towards ICT integration in teaching and learning, and Questionnaire (close ended) to know the challenges being encountered by the teacher- educators while using ICT during teaching.

Statistical Techniques

The data collected from the teacher educators in the present study has been evaluated by using Mean, Standard deviation, t-test and ANOVA.

FINDINGS OF THE STUDY

Table 1: Demographic Profile of the Participants

Participants attribute		Participants Number	Percentage
Gender	Male	52	52%
	Female	48	48%
TOTAL		100	100%
Age	21-35 yrs	22	22%
	36-50 yrs	40	40%
	51 yrs and above	38	38%
TOTAL		100	100%
Teaching Experience	1-10 yrs	24	24%
	11-20 yrs	27	27%
	20 years and above	19	19%
TOTAL		100	100%

In this research, demographic data was collected to attain a deeper insight of the background of the respondents. The investigator requested participants to provide details regarding their age, gender, and length of teaching experience. This information was essential in characterizing the teacher participants and understanding the overall profile of the teacher educators. The study further aimed to explore the teaching experience of the respondents which was considered a crucial factor, as it potentially influenced their integration and utilization of ICT while delivering subject content in the classroom.

Table 2: Opinion of teacher-educators towards the integration of ICT in teaching and learning

S. No.	Statements	Strongly Agree (%)	Agree (%)	Neutral (%)	Disagree (%)	Strongly Disagree (%)	Mean	SD
1.	ICT enhances the quality of teaching-learning processes	46 (46%)	34 (34%)	10 (10%)	6 (6%)	4 (4%)	4.12	0.93
2.	ICT improves student engagement and motivation	44 (44%)	35 (35%)	12 (12%)	5 (5%)	4 (4%)	4.10	0.91
3.	ICT helps in accessing diverse and updated instructional materials	50 (50%)	33 (33%)	10 (10%)	5 (5%)	2 (2%)	4.24	0.85
4.	I feel confident using ICT tools for teaching	38 (38%)	37 (37%)	14 (14%)	7 (7%)	4 (4%)	3.98	0.99
5.	ICT training has improved my teaching practices	41 (41%)	33 (33%)	15 (15%)	7 (7%)	4 (4%)	4.00	0.96
6.	Lack of infrastructure hinders effective ICT integration	45 (45%)	34 (34%)	11 (11%)	6 (6%)	4 (4%)	4.10	0.93
7.	My institution supports ICT-based teaching-learning	37 (37%)	36 (36%)	15 (15%)	8 (8%)	4 (4%)	3.94	0.98
8.	I need more training to effectively use ICT in my teaching	43 (43%)	35 (35%)	12 (12%)	6 (6%)	4 (4%)	4.07	0.94

The analysis of responses from 100 teacher-educators regarding their opinion on the amalgamation of Information and Communication Technology in process of teaching-learning reveals a predominantly positive outlook. The data presented in table 2, shows that a significant majority of respondents either *strongly agreed* or *agreed* towards integrating the importance of ICT in educational practices. A detailed look at the item-wise responses indicates that the highest percentage of agreement was observed for the statement “*ICT helps in accessing diverse and updated instructional materials*”, with **83%** of respondents either strongly agreed or agreed (Mean = 4.24, SD = 0.85). This implies that teacher-educators recognize the significance of ICT in broadening access to global knowledge and current content. Similarly, **80%** of respondents affirmed that “*ICT enhances the quality of teaching-learning processes*” (Mean = 4.12, SD = 0.93), and **79%** agreed that “*ICT improves student engagement and motivation*” (Mean = 4.10, SD = 0.91). These responses indicate strong confidence in the pedagogical benefits of ICT in promoting interactive, engaging, and learner-centered classrooms. In addition to this, the statement “*I feel confident using ICT tools for teaching*” had a slightly lower mean score (3.98), with **75%** agreeing or strongly agreeing. This suggests that while the majority is confident in using ICT, there remains a segment (approximately 14%) who feels neutral, and a smaller portion that lack confidence, highlighting the need for continuous professional development. Furthermore, the statement “*ICT training has improved my teaching practices*” also received strong support (Mean = 4.00), reinforcing the positive impact of capacity-building initiatives. However, the responses to “*I need more training to effectively use ICT in my teaching*” (Mean = 4.07, 78% agreement) underline an ongoing need for skill enhancement, especially with rapidly evolving technologies. Interestingly, **79%** of respondents agreed that “*Lack of infrastructure hinders effective ICT*

integration” (Mean = 4.10), indicating that while the attitude towards ICT is positive, practical challenges related to implementation persist. Similarly, while **73%** agreed that their institutions support ICT-based teaching (Mean = 3.94), a noticeable minority expressed concerns about institutional readiness or encouragement. To summarize, the data indicate that **teacher-educators hold favorable opinions towards ICT integration**, appreciating its role in enhancing teaching quality and learner engagement. Nonetheless, **barriers such as insufficient infrastructure and the need for further training** still limit the full realization of ICT’s potential. These findings suggest that systemic support—through improved infrastructure, ongoing training, and institutional encouragement—is essential to bridge the gap between favorable attitudes and actual ICT integration in classrooms.

Table 3: Comparison of Teacher-Educators’ Opinions on ICT Integration with respect to their gender (N = 100)

Group	N	Mean	SD	t	df	Sig. (2-tailed)	Mean Difference
Males	52	118.23	11.85	0.74	98	0.46	1.44
Females	48	119.67	10.32				

For the purpose of finding out a significant difference in the opinions of male and female teacher-educators about the amalgamation of ICT in the teaching-learning process, an independent samples t-test applied. The sample included 100 teacher-educators, comprising 52 males and 48 females. The mean opinion score for male teacher-educators was **118.23** with a standard deviation of **11.85**, while the mean for female teacher-educators was **119.67** with a standard deviation of **10.32**. The average (**mean**) **difference** between the two groups was **1.44**. The **t-value** was calculated to be **0.74** with **98 degrees of freedom**, and the **p-value (2-tailed)** was found to be **0.46**, which is higher than the 0.05 significance level. The difference in mean opinion scores between male and female teacher-educators is **not statistically significant because p-value exceeds 0.05**. This indicates that **gender does not have a significant influence** on teacher-educators’ perceptions toward the integration of ICT in the pedagogy. Both male and female educators established **similar and positive attitudes** toward ICT usage, suggesting that efforts to promote ICT integration can be **uniformly targeted** without the need for gender-specific differentiation in training or policy design.

Table 4: Comparison of Teacher-Educators’ Opinions on ICT Integration with respect to their age (N = 100)

Age Group	N	Mean	SD	F	Sig (p-value)
21–35 years	22	124.10	9.40	4.62	0.012
36–50 years	40	118.85	10.25		
51 years and above	38	113.65	11.78		

Whether there is a significant difference in teacher-educators’ opinions toward the integration of Information and Communication Technology (ICT) in teaching-learning processes based on their age, One -Way Analysis of Variance was applied. The respondents were divided into three age groups including **21–35 years (N = 22)**, **36–50 years (N = 40)**, and **above 51 years (N = 38)**. The findings of the ANOVA discovered a **statistically significant difference** among the age groups, with an **F-value of 4.62** and a **p-value of 0.012**, which is less than the 0.05 level of significance which indicates that age has a significant impact on the opinions of teacher-educators regarding ICT integration. It was found from the table 4 that respondents between the age group of **21–35 years** had the **highest mean score of 124.10**, indicating a **very positive attitude** toward ICT integration. Although, respondents between the age group of **36–50 year** reported a **moderately favorable attitude**, with a mean score of **118.85**. In addition to this, respondents having **51 years of age and**

above had the **lowest mean score of 113.65**, reflecting a comparatively **less favorable opinion**.

The results suggests that **younger teacher-educators exhibit a more positive and confident approach** to the use of ICT in teaching-learning, which could be attributed to their greater digital exposure, recent training, or familiarity with emerging technologies. In contrast, older educators may face barriers such as lack of training; lower digital literacy, or resistance to adopting new tools in the teaching-learning. The results highlight the need for **age-responsive ICT capacity-building initiatives**. Institutions should offer **specialized training, peer mentoring, and ongoing support for senior educators**, ensuring equitable and effective ICT integration across all age groups in the teacher education.

Table 5: Comparison of Teacher-Educators’ Opinions on ICT Integration with respect to their teaching experience (N = 100)

Teaching Experience	N	Mean	SD	F	Sig(p-value)
1–10 years	24	123.85	8.92	4.91	0.010
11–20 years	27	118.60	9.87		
Above 20 years	19	113.42	11.25		

A one-way Analysis of Variance (ANOVA) was applied to examine whether teaching experience affects teacher-educators’ opinions on ICT integration in teaching-learning. The participants were grouped into three categories based on their years of experience comprising **1–10 years (N = 24)**, **11–20 years (N = 27)**, and **above 20 years (N = 19)**. The ANOVA results showed a **statistically significant difference** among the groups, with an **F-value of 4.91** and a **p-value of 0.010**, which is **less than 0.05**. This implies that **teaching experience significantly influences educators’ opinions** on the use of ICT in education. It was found from the above table that teacher educators having **1–10 years of teaching experience** had the **highest mean score (123.85)**, reflecting a **very positive attitude** toward ICT. While those with **11–20 years teaching experience** had a moderate score (118.60). It was also found that the **most experienced group (above 20 years teaching experience)** had the **lowest mean score (113.42)**, indicating a **less favorable view towards ICT integration in teaching-learning**.

Table 6: To explore the problems and challenges being faced by the teacher- educators in using ICT while teaching

Components	Mean	SD
Inadequate ICT Infrastructure	4.30	0.72
Lack of Technical Support	4.15	0.80
Insufficient Training Opportunities	3.98	0.85
Time Constraints for ICT Integration	3.76	0.90
Lack of Motivation Among Teachers	3.62	1.01
Limited Access to Internet in Campus	3.58	0.95
Absence of Institutional Policy on ICT Usage	3.50	1.10
Difficulty in Selecting Suitable ICT Tools	3.48	1.02
Student Disinterest in ICT-based Teaching	3.12	1.20
Lack of curriculum integration of ICT	3.06	1.15

The table 6 concerning the problems and challenges being faced by the teacher-educators in using ICT while teaching exhibited that the data presented offers a quantitative assessment of the various challenges encountered by teacher educators in incorporating ICT within teacher education institutions. The interpretation is based on the mean scores and standard deviations derived from a Likert scale, with higher mean values indicating greater perceived severity of the problem. The challenge rated highest by respondents is **Inadequate ICT Infrastructure** ($M = 4.30$, $SD = 0.72$), which is interpreted as a *major challenge*. This indicates a widespread concern regarding the insufficiency of hardware, software, and physical ICT resources, suggesting a foundational gap in the institutions' capacity to support ICT integration. The relatively low standard deviation highlights strong consensus among respondents on this issue. Similarly, **Lack of Technical Support** ($M = 4.15$, $SD = 0.80$) is also classified as a *major challenge*, suggesting that the absence of timely and qualified technical assistance significantly hinders the proper utilization of ICT tools in teaching-learning practices. This challenge appears to be nearly as pressing as infrastructural deficiencies. In addition to this, **Insufficient Training Opportunities** received a mean score of 3.98 ($SD = 0.85$), positioning it on the borderline between *moderate to major challenge*. This highlights a systemic shortfall in professional development programs aimed at building the digital pedagogical competencies of teacher educators. The close proximity of this mean value to the 'major challenge' range reinforces the critical need for structured and recurrent training modules. Furthermore, **Time Constraints for ICT Integration** ($M = 3.76$, $SD = 0.90$) and **Lack of Motivation among Teachers** ($M = 3.62$, $SD = 1.01$) are both regarded as *moderate challenges*. These findings suggest that while educators may be generally open to ICT use, practical limitations such as overloaded schedules and varying levels of intrinsic motivation continue to pose substantial barriers. The slightly higher standard deviation for motivation indicates more variation in perceptions, possibly influenced by individual attitudes or institutional culture. It was also found that **Limited Access to Internet in Campus** ($M = 3.58$, $SD = 0.95$), **Absence of Institutional Policy on ICT Usage** ($M = 3.50$, $SD = 1.10$), and **Difficulty in Selecting Suitable ICT Tools** ($M = 3.48$, $SD = 1.02$) also fall under the *moderate challenge* category. These challenges reflect systemic and strategic gaps—both in terms of digital infrastructure and policy frameworks—as well as a lack of support for informed pedagogical decision-making. The relatively higher standard deviations for these factors may point to discrepancies in how different institutions address or experience these issues. Other than that, **Student Disinterest in ICT-based Teaching** ($M = 3.12$, $SD = 1.20$) and **Lack of Curriculum Integration of ICT** ($M = 3.06$, $SD = 1.15$) were rated the lowest, and are interpreted as *minor to moderate challenges*. While not as critical as the other factors, these findings suggest the need for a more student-centered approach and a curricular design that explicitly incorporates ICT elements. The elevated standard deviations suggest a wide variation in experiences, perhaps indicating institutional or disciplinary differences.

In summary, the most pressing challenges relate to systemic inadequacies such as infrastructure, technical support, and training. Moderate challenges reflect time, motivation, and access-related concerns, while relatively less critical but still relevant issues include student engagement and curriculum alignment. Addressing these multi-faceted challenges demands an exhaustively plan of action for policy reform, capacity building, and resource allocation to foster sustainable ICT integration in teacher education.

DISCUSSION OF THE STUDY

The first objective of the present study was to assess the opinion of the teacher-educators towards the integration of ICT in teaching. On the basis of results of the study, it revealed that **teacher-educators hold favorable opinions towards ICT integration**, appreciating its role in enhancing teaching quality and learner engagement. Similar findings were revealed by Sharma (2021) highlighted that integration of ICT in teaching and learning has made the process effective as technology has provided many platforms which assist the teachers in preparing their lesson-plans, delivery of lessons as well as Assessment. Additionally, Sri (2022) investigated the potential

of ICT in engaging students and productive educational outcomes. Similarly, Akram et al., (2022) highlighted that teachers showed positive perceptions regarding technology integration in teaching-learning practices. A similar study was also conducted by Arif et al., (2023) also found that most of the teachers have solid demand to integrate ICT in teaching and learning. It also indicated that ICT makes the class more effective through student engagement, time management and in interaction processes though there were various challenges such as internet connectivity and electricity. In addition to this, Lituanas and Ferenal (2025) found that a positive attitude was shown by the teachers towards ICT and the used it actively in pedagogical practices and professional applications were less emphasized although there were challenges related with the infrastructure and resources.

The second objective was the comparison of teacher-educators' opinions on ICT integration with respect to their gender. The study found that **gender did not show a substantial influence** on teacher-educators' perceptions and both male and female educators indicated **similar and positive attitudes** toward ICT usage, suggested that efforts to promote ICT integration can be **uniformly targeted** without any gender biasness in training or policy design. This result is supported by the research studies by Rahimi & Yadollahi (2011) in which they found that there was no effect of gender in the use of ICT. Additionally, Rana (2012) highlighted that there were no significant differences in the attitude of teacher educators towards the integration with respect to gender. Kaur (2019) also revealed that the attitude of teachers towards the use of ICT was positive and there were no gender differences in the use of ICT by the teachers. Abel et al., (2022) found in their study that majority of the teachers had favorable attitude towards ICT integration in the classroom. Furthermore, Pir and Islam (2024) revealed in their study that there was no significant difference in the attitude of teachers in the integration of ICT with respect to their gender. Additionally, Nayak & Das (2025) revealed that the perception of male and female towards the integration of ICT did not vary.

The third objective was the comparison of teacher educators towards the integration of ICT in teaching with respect to their age. Results found that the **younger teacher-educators exhibit a more positive and confident approach** in comparison to older educators who may face barriers such as lack of training; lower digital literacy, or resistance to adopting new tools in the teaching-learning. This result is supported by the research of Rana (2012) who revealed that significant difference existed in attitude of teachers towards technology with respect to their age. Furthermore, Anastasia et al., (2020) demonstrated that younger educators accept the inclusion of ICT in the education easier in comparison to their older colleagues. Additionally, Mensah & Osman (2022) found a significant difference in perception among teachers based on their age.

The fourth objective was to discern the opinion of teacher-educators towards the integration of ICT in teaching with respect to their teaching experiences. The present study results found that most experienced teachers (above 20 years of teaching experience) had less satisfactory view towards ICT integration in teaching-learning. Similarly, Anastasia et al., (2020) in their study discovered that younger teachers are more receptive to the use of ICT in the classroom than their more senior counterparts. Because of unfavourable opinions and aversion to change, older and more seasoned teachers are less inclined to include ICT into their lessons. The literature has asserted that elderly teachers frequently see ICT integration as an intrusion. They find it more difficult to alter their practices and viewpoints because, on the one hand, they do not see the value of educational technology. Additionally, Ngao et al., (2022) in their study revealed that young and inexperienced teachers showed their readiness to integrate ICT in teaching-learning process whereas old and experienced teachers do not understand the logic behind the technology. Furthermore, Mensah & Osman (2022) found a significant difference in perception based on teaching experiences. Similarly, Pir & Islam (2024) observed a noticeable difference based on participant's experience levels as most experienced displayed less readiness towards the integration of ICT.

The fifth objective was to explore the challenges faced by the teacher educators while incorporating ICT in Pedagogy. The study revealed that teacher educators faced major challenges like inadequate ICT set-up, lack of technical support, inadequate training opportunities, time-constraints for ICT integration, lack of motivation among teachers, Limited access to internet in campus etc. The present study results are supported by Dayal (2014), which revealed that lack of infrastructure is one of the barriers in properly incorporating the ICT in teaching-learning. In addition to this, Kaur (2019) also highlighted a list of barriers including a smaller number of ICT specialist, lack of computer availability, lack of financial support, lack of time required to effectively integrate ICT in teaching. Furthermore, Asianoa et al., (2022) in their study found that teachers were contending with the new technological problems in the classroom. Additionally, Prakash (2022) showed apparent results of his study by highlighting the challenges like lack of knowledge to handle ICT equipments, lack of training, insufficient funds, internet and Electricity problems etc. Similarly, Akram et al., (2022) found various barriers like slow internet, lack of infrastructure etc were the main obstacles in integrating ICT into their teaching practices. Furthermore, Karunakaran & Dhanawardana (2023) in their results revealed that teachers are facing challenges in accessing ICT resources, they have issues in skill development related to ICT, inadequate ICT resources etc. In another study conducted by Deka (2024) stated that the key challenges in integrating ICT were Limited knowledge of ICT, teachers Limited accessibility, Network and electricity, Limited technical and pedagogical support, lack of teachers training and competency.

CONCLUSION

In a nutshell, we can say that undoubtedly, information and communication technology (ICT) permeates every field and holds a pivotal role in education, being deemed an integral component for educational reforms and innovations. ICT serves as a catalyst for curriculum delivery, and thereby enhancing quality education. However, without adequately training our teachers and equipping them with the latest ICT tools and resources, we cannot take lead in transforming education.

RECOMMENDATIONS FOR FURTHER STUDY

In the present study only, those colleges were taken into consideration which is affiliated with the University of Jammu but in the future research other colleges may also be taken into consideration. In the present study only, teacher educators were taken as the target population but in the future researches, teacher trainees may also be taken. The present study was delimited to the Colleges of Jammu division only but in the future researches, colleges of Kashmir division may also be taken into consideration.

References

- Dawes, L. (2001). What stops teachers using new technology? In M. Leask (Ed.), *Issues in Teaching using ICT* (pp. 61 79). London: Routledge.
- UNESCO. (2002). *Information and Communication Technology in Education: A Curriculum for Schools and Programme of Teacher Development*. Paris: UNESCO.
- NCF (2005). *National Curriculum Framework*, NCERT, New Delhi.
- Balanskat, A., Blamire, R., & Kefala, S. (2006). *A review of studies of ICT impact on schools in Europe: European School net*.
- Best, J.W. and Kahn, J.V. (2006). *Research in Education*. *Pearson Education Publishers*.

- Mishra and Rajendra (2008). Evolutionary and Revolutionary: Informational and Communication Technology. *University News*, 46 (01), 17-20.
- Sahoo and Namita (2009). Effectiveness of ETV Teacher Education Programmes of CIET. *IATE*, 43(2), 64-69.
- Habibu, T., Mamun, A.A. and Clement, C.K. (2012). Difficulties faced by teachers in using ICT in teaching-learning at technical and higher institutions of Uganda. *International Journal of Engineering Research and technology*, 1(7), 2278-0181. Retrieved from https://www.researchgate.net/publication/281349386_Difficulties_Faced_by_Teachers_in_Using_ICT_in_Teaching-Learning_at_Technical_and_Higher_Educational_Institutions_of_Uganda
- Homiakova, V., Arras, P., & Kozik, T. (2017). Challenges of using ICT in education. 9th IEEE International Conference on Intelligent Data Acquisition and Advanced Computing Systems: Technology and Applications (IDAACS). DOI:10.1109/idaacs.2017. 8095254
- Yamin, M. (2019). Information technologies of 21st century and their impact on the society. *International Journal of Information Technology*, 11, 759–766. <https://doi.org/10.1007/s41870-019-00355-1>
- Kennedy, G. M. (2023). Challenges of ICT integration in teachers' education: A case study of the college of Education, University of Liberia. *International Journal of Social Science and Education Research Studies*, 3(5), 2770-2790. Retrieved from https://www.researchgate.net/publication/370751840_Challenges_of_ICT_Integration_in_Teachers'_Education_A_Case_Study_of_the_College_of_Education_University_of_Liberia
- AbdulRab, H. (2023). Teacher professional development in the 21st century. *African Journal of Education and Practice*, 9(4), 39-51. https://www.researchgate.net/deref/https%3A%2F%2Fdoi.org%2F10.47604%2Fajep.2237?_tp=eyJjb250ZXh0Ijp7ImZpcnN0UGFnZSI6InB1YmxxpY2F0aW9uIiwicGFnZSI6InB1YmxxpY2F0aW9uIn19
- Mthembu, N. G., Gachie, W. and Govender, D. W. (2023). The pedagogical shift in the emergence of digital technology: Transforming teaching practices. *E-Journal of Humanities, Arts and Social Sciences (EHASS)*, 4(11), 1330-1344. https://www.researchgate.net/deref/https%3A%2F%2Fdoi.org%2F10.38159%2Fehass.20234112%250d?_tp=eyJjb250ZXh0Ijp7ImZpcnN0UGFnZSI6InB1YmxxpY2F0aW9uIiwicGFnZSI6InB1YmxxpY2F0aW9uIn19
- Aidoo, B., & Chebure, A. (2024). Integrating ICT to Adopt Online Learning in Teacher Education in Ghana. *Education Sciences*, 14(12), 1313. <https://doi.org/10.3390/educsci14121313>
- Akram, H., Abdelrady, A. H., Al-Adwan, A. S., & Ramzan, M. (2022). Teachers' perceptions of technology integration in teaching-learning practices: A systematic review. *Frontiers in psychology*, 13, 920317.
- Sri, K. G. (2022). The impact Of ICT integration on Student Engagement and Learning Outcomes in Higher Education: A systematic Review. *International Journal of Innovative Research in Technology*, 8(8), 2349-6002.
- Arif, S. A., Ali, F. S., Chicho, K. Z. H., & Hussein, S. H. (2023). Teacher's Perspective on The Challenges of Using ICT in Teaching: A Case Study in Education Faculty. *International Journal of Social Sciences & Educational Studies*, 10(3), 461-473.
- Deka, R. (2024). Issues and challenges faced by the Teachers during integration of ICT in teaching-learning

process of Darrang district in Assam. *International Journal of Multidisciplinary Research*, 6(2), 2582-2160.

Lituanas, H. P. & Ferenal, E. S. (2025). Implementation of ICT on teachers' competence and challenges. *Global Scientific Journals*, 13 (5), 2320-9186.

Rahimi, M., & Yadollahi, S. (2011). Computer anxiety and ICT integration in English classes among Iranian EFL teachers. *Procedia Computer Science*, 3, 203-209.

Kaur, M. (2019). Role of Teachers' Attitude and Beliefs regarding use of ICT in Indian Classrooms. *Bioscience Biotechnology Research Communications*, 12(3), 698-705.

Abel, V. R., Tondeur, J., & Sang, G. (2022). Teacher perceptions about ICT integration into classroom instruction. *Education Sciences*, 12(9), 609.

Pir, Y. & Islam, B. (2024). Assessing the attitude of teacher educators towards the integration of ICT in teaching learning process. *International Education and Research Journal*, 10(2), 2454-9916.

Nayak, P. K. & Das, S. B. (2025). Perception of pupil-teacher towards the integration of ICT in teacher education. *International Journal of Creative Research Thoughts*, 13(10), 2320-2882.

Rana, N. (2012). A Study to Assess Teacher Educators' attitudes Towards Technology Integration in Classrooms. *MIER Journal of Educational Studies Trends and Practices*, 2(2), 190-205.

FROM OBEDIENT LEARNERS TO INTELLIGENT CO-CREATORS: RETHINKING EDUCATION 1.0 TO 5.0

Dr Ismail Thamarasseri

Associate Professor, School of Distance & Online Education, Mahatma Gandhi University,
Kottayam, Kerala, India, PIN 686560,
Phone: +91 9446154254, Email: ismailkttl@gmail.com

Molu G Nair

Assistant Professor, Titus II Teachers College, Tiruvalla, Kerala, India,
Phone: +91 9447168504, E-mail: moludipin@gmail.com

Gisa Merin Varghese

Assistant Professor, Titus II Teachers College, Tiruvalla, Kerala, India,
Phone: +91 8330828669, E-mail: gisakv0091@gmail.com

Abstract

Education systems around the world have changed significantly due to social, technological, and economic shifts. Traditional schooling emphasized obedience, memorization, and teacher-led instruction. In contrast, modern educational approaches increasingly focus on creativity, collaboration, and innovation. The shift from Education 1.0 to Education 5.0 illustrates a move from passive learning to active knowledge co-creation. This theoretical paper examines how educational paradigms evolved from Education 1.0 to Education 5.0, highlighting the change in learners from obedient recipients of information to active creators and collaborators in knowledge production. Education 1.0 represents a teacher-led, content-delivery approach. Education 2.0 introduced interactive learning environments shaped by technological progress. Education 3.0 prioritized learner independence and knowledge construction through digital tools. Education 4.0 connects education with the needs of the Fourth Industrial Revolution by incorporating artificial intelligence, big data, and digital platforms into learning settings. Lastly, Education 5.0 stresses human-centred innovation, creativity, ethics, and teamwork in knowledge creation. This paper offers a theoretical analysis backed by relevant literature to illustrate how educational paradigms changed in response to societal needs. The study concludes that future educational systems should foster critical thinking, digital skills, interdisciplinary learning, and group innovation to prepare learners for complex global issues. The findings highlight the necessity for educators to shift from being knowledge transmitters to becoming facilitators and mentors who guide learners as intelligent co-creators of knowledge.

Keywords: Education 1.0, Education 2.0, Education 3.0, Education 4.0, Education 5.0, co-creation of knowledge, learner-centred education, digital learning, educational transformation

Introduction

Education has continuously evolved in response to changes in society, technological advancements, and emerging human needs. In earlier periods, education primarily focused on the transmission of established knowledge from teachers to students within a highly structured system. This traditional model, commonly referred to as Education 1.0, emphasised obedience, discipline, and memorisation, where learners were expected to passively receive information while teachers exercised complete authority in the classroom (Freire, 1970; Schiro, 2013).

Over time, socio-economic transformations and technological progress necessitated new approaches to teaching and learning. The conceptual framework of different “generations” of education, ranging from Education 1.0 to Education 5.0, provides a useful lens for understanding the evolution of educational practices. Education 1.0 was largely aligned with agrarian societies and prioritised teacher-centred instruction. In contrast, Education 2.0 emerged during the industrial era, introducing structured curricula and more organised methods of knowledge dissemination to meet the demands of mass education (Toffler, 1980).

Subsequently, Education 3.0 marked a significant shift towards learner-centred approaches by incorporating digital tools and promoting interactive, collaborative learning environments. This stage emphasised teamwork, problem-solving, and active knowledge construction (Anderson & Dron, 2011). Building on this, Education 4.0 is closely associated with the Fourth Industrial Revolution, highlighting the integration of advanced technologies such as artificial intelligence, big data, and the Internet of Things into educational contexts. This phase focuses on innovation, digital competence, and aligning learning outcomes with the needs of a rapidly evolving, technology-driven economy (Schwab, 2016; Hussin, 2018).

More recently, the concept of Education 5.0 has emerged as a human-centred approach that seeks to balance technological advancement with creativity, ethics, and social responsibility. In this model, learners are not merely recipients of information but active participants in knowledge creation and collaboration. Education 5.0 aims to foster critical thinking, innovation, and teamwork to address complex global challenges and promote sustainable development (Fukuyama, 2018; UNESCO, 2021).

An important theoretical perspective underpinning this transformation is network-based learning. Contemporary learning theories such as connectivism argue that knowledge exists within networks of information and individuals, and that learning occurs through the formation and navigation of these connections (Siemens, 2005). This perspective highlights the increasing relevance of digital technologies and collaborative learning environments in modern education.

The transition from obedient learners to intelligent co-creators represents a profound shift in educational philosophy. Rather than focusing solely on knowledge transmission, contemporary education emphasises knowledge construction, collaboration, creativity, and innovation. This study is theoretically informed by constructivism and connectivism and seeks to examine this transformation by analysing the evolution of educational models from Education 1.0 to Education 5.0.

Methodology

This study adopts a qualitative, theoretical research design to examine the evolution of educational paradigms from Education 1.0 to Education 5.0. The research is primarily based on a comprehensive review and synthesis of existing literature related to educational transformation, digital learning, and emerging pedagogical frameworks. Rather than relying on empirical data collection, the study employs a conceptual approach to analyse how educational models have evolved in response to technological advancements and changing societal needs.

The data for this study were collected from a wide range of secondary sources, including peer-reviewed journal articles, academic books, policy reports, and conference proceedings. Key sources were selected based on their relevance to themes such as digital transformation in education, artificial intelligence in learning, learner-centred pedagogy, and human-centred educational models. Priority was given to recent and widely cited works to ensure the inclusion of contemporary perspectives, while foundational theories were also incorporated to provide historical context.

The analytical approach of the study is based on thematic synthesis. Relevant literature was systematically reviewed and organised into key thematic categories corresponding to different stages of educational development, namely Education 1.0 through Education 5.0. Within each category, concepts related to teaching methods, learner roles, technological integration, and educational objectives were examined and compared. This process enabled the identification of patterns, similarities, and shifts across different educational paradigms.

The study is theoretically grounded in constructivism and connectivism, which provide a framework for understanding the transition from teacher-centred knowledge transmission to collaborative and network-based learning. Constructivist perspectives emphasise the active role of learners in constructing knowledge through experience and interaction, while connectivism highlights the importance of digital networks and information flow in contemporary learning environments. These theoretical lenses guide the interpretation of the evolution from passive learning models to intelligent co-creation of knowledge.

To ensure rigour and credibility, the study follows a systematic and critical approach to literature selection and analysis. Sources were carefully evaluated for their academic relevance, authenticity, and contribution to the topic. The synthesis process involved cross-referencing multiple studies to validate key arguments and avoid bias. Although the study does not involve primary data collection, its strength lies in integrating diverse scholarly perspectives to develop a coherent understanding of educational transformation.

However, certain limitations must be acknowledged. As a theoretical study, the findings are based on interpretation of existing literature and may not fully capture contextual variations across educational systems.

Review of Related Literature

The evolution of educational paradigms from Education 1.0 to Education 5.0 has been widely examined in contemporary educational research, with scholars highlighting the transformative role of technology, pedagogy, and learner participation. Early discussions on digital transformation in education emphasise the shift from traditional, teacher-centred approaches to more interactive and learner-driven models. For instance, studies on Education 3.0 underline the importance of digital technologies in creating participatory and personalised learning environments. Borden (2013) and Horn (2015) argue that the integration of online platforms, mobile technologies, and blended learning approaches enables learners to access content flexibly and engage actively in knowledge construction. Similarly, Borba et al. (2015) demonstrate how digital tools reshape mathematical learning by allowing students to explore, create, and share knowledge collaboratively.

A related strand of literature focuses on the concept of learner autonomy and the co-creation of knowledge. Luckin et al. (2017) introduce the idea of learner-generated contexts, suggesting that students increasingly take responsibility for designing their own learning environments through digital platforms. This perspective aligns with the broader shift towards constructivist and connectivist learning theories, where knowledge is viewed as distributed across networks and constructed through interaction. Such approaches mark a clear departure from passive learning models and reinforce the foundations of Education 3.0.

The transition to Education 4.0 is primarily characterised by the integration of advanced digital technologies and their alignment with industry demands. Scholars such as Antunes (2017) and Huk (2021) highlight how technologies like artificial intelligence, automation, and data analytics are reshaping educational practices and necessitating new pedagogical approaches. These studies emphasise the challenges faced by educational institutions in adapting to rapid technological changes while maintaining meaningful learning experiences. Hussin (2018) further explains that Education 4.0 promotes innovation-oriented learning environments where students develop critical thinking and problem-solving skills relevant to the digital economy.

More recent research extends this discussion to Education 5.0, which integrates technological advancement with human-centred values. Felcher et al. (2022) conceptualise Education 5.0 as a model that combines digital innovation with creativity, collaboration, and ethical responsibility. Similarly, Singh and Kaur (2023) and Rane et al. (2023) emphasise the role of artificial intelligence in enabling personalised learning while also supporting human creativity and adaptability. The emergence of generative artificial intelligence, as discussed by Chakraborty (2024), further strengthens this transition by enabling interactive, adaptive, and collaborative learning environments that bridge human and machine intelligence.

Overall, the reviewed literature indicates a clear progression from structured and teacher-led models of education towards dynamic, technology-enhanced, and human-centred learning systems. While Education 3.0 focuses on collaboration and digital participation, Education 4.0 integrates advanced technologies aligned with industry needs, and Education 5.0 extends this framework by emphasising ethical, social, and human dimensions of learning. This body of research collectively highlights the growing importance of preparing learners not only with technical knowledge but also with the skills and values required to address complex global challenges.

Paradigm of Conceptual Shift

Education 1.0 (Traditional Teacher-Centred Learning)

Education 1.0 represents the earliest and most traditional phase of formal education, characterised by a strong emphasis on teacher authority and content transmission. In this model, the teacher functions as the central figure in the learning process and is regarded as the primary source of knowledge. The instructional approach is predominantly teacher-centred, where knowledge flows in a one-directional manner from the teacher to the students. Learners are expected to receive, absorb, and reproduce information delivered through lectures and prescribed textbooks, with limited opportunities for dialogue or interaction (Freire, 1970; Schiro, 2013).

The pedagogical practices associated with Education 1.0 are rooted in behaviourist principles, where learning is viewed as the acquisition of observable knowledge through repetition and reinforcement. As such, memorisation and rote learning become the dominant strategies, and success is typically measured through written examinations that assess recall rather than understanding or application (Biggs & Tang, 2011). Classroom instruction often relies on conventional tools such as chalk and blackboard, with minimal integration of technology, reflecting the historical context in which this model evolved (Cuban, 1986).

Within this framework, students occupy a largely passive role. They are expected to listen attentively, take notes, and follow instructions without significant deviation from the prescribed curriculum. The scope for independent inquiry, creativity, and critical thinking remains limited, as the system prioritises uniformity and standardised outcomes over individual exploration (Robinson, 2011). Interaction between teachers and students is generally restricted, and questioning or challenging the teacher's authority is often discouraged.

Despite its limitations, Education 1.0 has played a foundational role in the development of formal education systems across the world. It has contributed to the mass dissemination of basic knowledge and literacy, particularly during the industrial era when standardisation and efficiency were considered essential (Toffler, 1980). However, in contemporary educational discourse, this model is increasingly critiqued for its inability to address the diverse learning needs of students and for its lack of emphasis on higher-order cognitive skills required in the knowledge society.

Education 2.0 (Structured and Interactive Learning)

Education 2.0 represents a transitional phase in the evolution of educational practices, moving beyond the rigid

teacher-centred model of Education 1.0 towards a more structured and moderately interactive learning environment. This stage emerged alongside the expansion of formal schooling systems and the growing need for organised curricula that could systematically deliver knowledge and skills to a larger population. While the teacher continues to play a central role, Education 2.0 introduces a more balanced approach by incorporating planned curricula, defined learning objectives, and standardised instructional methods (Schiro, 2013; Toffler, 1980).

In this model, learning remains largely guided by the teacher, but there is a gradual shift towards increased student participation. Classroom practices begin to include questioning, basic discussions, and limited forms of interaction, allowing learners to engage with content beyond passive listening. The introduction of structured syllabi and subject-wise organisation ensures that learning follows a logical sequence, enabling students to build knowledge progressively. Assessment practices also become more formalised, with periodic tests and evaluations designed to measure not only recall but also basic understanding (Biggs & Tang, 2011).

Education 2.0 is also characterised by the early integration of technology in education, although at a relatively basic level. Tools such as audio-visual aids, overhead projectors, and early computer-based learning systems begin to support classroom instruction, making learning more engaging and accessible. These developments mark the beginning of a shift towards technology-enhanced learning environments, setting the stage for the more advanced digital integration seen in later educational models (Cuban, 1986).

The role of the student in Education 2.0 evolves from that of a purely passive recipient to a somewhat active participant in the learning process. Students are encouraged to follow structured learning pathways, respond to teacher questions, and engage in guided activities. However, the scope for independent learning, creativity, and critical inquiry remains limited compared to later stages. The emphasis is still on mastering prescribed content and achieving standardised learning outcomes.

Despite its limitations, Education 2.0 plays a crucial role in the development of modern education systems by introducing organisation, scalability, and consistency in teaching and learning processes. It serves as an important bridge between traditional content delivery and more interactive, learner-centred approaches, laying the foundation for the collaborative and technology-driven paradigms that define Education 3.0 and beyond.

Education 3.0 (Collaborative and Student-Centred Learning)

Education 3.0 marks a significant transformation from traditional teacher-centred pedagogy to a more collaborative, participatory, and student-centred model of learning. In this phase, learners are no longer passive recipients of knowledge; instead, they actively engage as creators, contributors, and co-constructors of knowledge. The learning process becomes dynamic and interactive, emphasising participation, dialogue, and shared inquiry rather than one-way transmission of information (Gerstein, 2014; Anderson & Dron, 2011).

A defining feature of Education 3.0 is the integration of digital technologies that facilitate communication, collaboration, and access to information across geographical boundaries. Online platforms such as *Google Classroom*, video conferencing tools like *Zoom*, and content-sharing platforms such as *YouTube* enable learners to participate in virtual classrooms, engage in discussions, and collaborate on projects in real time. These technologies support flexible and personalised learning experiences, allowing students to access educational resources anytime and anywhere (Redecker et al., 2011).

Pedagogically, Education 3.0 promotes active learning strategies such as group projects, online discussions, flipped classrooms, and blended learning environments. In the flipped classroom model, for instance, students

engage with instructional content outside the classroom and use in-class time for discussion, problem-solving, and application of concepts (Bergmann & Sams, 2012). Blended learning further combines face-to-face instruction with online learning activities, creating a more flexible and enriched educational experience (Garrison & Kanuka, 2004).

The role of the teacher undergoes a fundamental shift in this model. Rather than acting as the sole authority, the teacher becomes a facilitator, mentor, or guide who supports learners in exploring concepts, asking questions, and applying knowledge in real-world contexts. This approach fosters higher-order thinking skills such as analysis, evaluation, and creativity, which are essential for success in contemporary society (Trilling & Fadel, 2009).

Education 3.0 also places strong emphasis on the development of twenty-first-century skills, including digital literacy, collaboration, adaptability, communication, and lifelong learning. Through interactive and technology-enabled environments, students learn to work effectively in teams, share knowledge, and solve complex problems creatively. As a result, this model aligns closely with the demands of the knowledge-based economy, preparing learners to navigate an increasingly interconnected and rapidly changing world (OECD, 2018).

Education 4.0 (Technology-Driven and Personalised Learning)

Education 4.0 represents a transformative stage in the evolution of educational systems, closely aligned with the advancements of the Fourth Industrial Revolution. This phase emphasises the integration of advanced digital technologies to create intelligent, flexible, and personalised learning environments that respond to the demands of a rapidly changing, technology-driven world. Unlike earlier models, Education 4.0 focuses not only on knowledge acquisition but also on preparing learners to navigate complex, innovation-oriented ecosystems shaped by automation, data, and digital connectivity (Schwab, 2016; Fisk, 2017).

A central feature of Education 4.0 is the incorporation of emerging technologies such as artificial intelligence, big data analytics, cloud computing, virtual reality, augmented reality, and robotics into teaching and learning processes. These technologies enable immersive and interactive learning experiences that enhance conceptual understanding. For instance, virtual laboratories and simulation-based environments allow students to conduct experiments and explore scientific phenomena without physical constraints, thereby expanding access to experiential learning (Hussin, 2018). Such environments also support deeper engagement and practical application of knowledge.

Another important dimension of Education 4.0 is personalised learning. In contrast to uniform, standardised instruction, this model leverages adaptive learning systems that analyse learners' performance, preferences, and progress to deliver customised content and feedback. This allows students to learn at their own pace and according to their individual abilities and interests, thereby improving learning outcomes and motivation (Zhou et al., 2020). The flexibility offered by digital platforms also supports continuous and lifelong learning, which is essential in a knowledge-based economy.

The role of the teacher in Education 4.0 evolves into that of a mentor, facilitator, and learning designer. Teachers guide students in solving real-world problems, encourage inquiry-based learning, and support the application of knowledge in practical contexts. This shift reflects a broader pedagogical move towards competency-based education, where emphasis is placed on developing higher-order skills such as creativity, critical thinking, problem-solving, and digital competence (OECD, 2018).

Education 4.0 also benefits from the emergence of smart classrooms, online courses, and global learning networks, which enable learners to connect with experts and peers across the world. These interconnected environments foster collaboration, cultural exchange, and innovation. As a result, students develop not only subject knowledge but also essential twenty-first-century skills, including adaptability, communication, and technological proficiency.

In essence, Education 4.0 aims to produce innovative, self-directed, and technologically skilled individuals who are capable of adapting to evolving workplace demands and contributing meaningfully to society. By integrating advanced technologies with learner-centred pedagogies, this model represents a forward-looking approach to education in the digital age (Fisk, 2017; Hussin, 2018).

Education 5.0 (Human-centered and Future-Oriented Education)

Education 5.0 represents an emerging and future-oriented vision of education that seeks to harmonise advanced technological innovation with human values, ethics, and social responsibility. While Education 4.0 is largely driven by technological integration aligned with the Fourth Industrial Revolution, Education 5.0 extends this trajectory by emphasising the purposeful use of technology to enhance human well-being and address societal challenges. In this paradigm, education is not merely about preparing individuals for the workforce but about nurturing responsible, empathetic, and innovative global citizens (Fukuyama, 2018; OECD, 2020).

A defining characteristic of Education 5.0 is its focus on the holistic development of learners. Beyond technical proficiency, it prioritises emotional intelligence, ethical reasoning, creativity, and social awareness. Learners are encouraged to engage critically with real-world issues and to apply their knowledge in ways that contribute to the common good. This shift reflects a broader reorientation from purely economic goals of education towards human-centred and sustainable development (UNESCO, 2021).

Technology continues to play a vital role in Education 5.0, particularly through the use of artificial intelligence, smart learning systems, and advanced digital platforms. However, unlike previous stages, technology is viewed as a means rather than an end. It is utilised to support personalised, collaborative, and lifelong learning experiences that empower individuals to reach their full potential while remaining socially responsible (Holmes et al., 2019). Learning environments become more flexible and interconnected, extending beyond traditional classrooms to include communities, industries, and global knowledge networks.

Another important dimension of Education 5.0 is its emphasis on addressing global challenges such as climate change, poverty, public health crises, and sustainable development. Educational practices are increasingly aligned with global frameworks such as the United Nations Sustainable Development Goals, encouraging learners to develop innovative solutions to complex societal problems. This approach fosters a sense of global citizenship and collective responsibility among students (UNESCO, 2021).

In this model, the role of the teacher evolves further into that of a mentor, guide, and inspirer. Teachers support learners in developing critical thinking, creativity, and ethical judgement, while also encouraging collaboration and interdisciplinary problem-solving. Education becomes a continuous, lifelong process, recognising that individuals must constantly adapt to technological and societal changes.

Ultimately, Education 5.0 aims to cultivate “change-makers” who are capable of integrating knowledge, creativity, and compassion to build a more inclusive, equitable, and sustainable world. By balancing technological advancement with human values, this model offers a comprehensive and forward-looking framework for the future of education.

The evolution of education from Education 1.0 to Education 5.0 reflects a gradual but significant transformation in teaching–learning processes in response to societal and technological changes. Education 1.0 represents the earliest stage, where learning is strictly teacher-centred, and knowledge flows in a one-way direction from teacher to student. The teacher is the sole authority, and students passively receive information. This is followed by Education 2.0, where structured curricula are introduced, bringing some level of organisation and standardisation to teaching, although the teacher still remains central to the process. A major shift occurs with Education 3.0, which emphasises student collaboration and the use of the internet for learning. At this stage, learners actively participate in knowledge creation through discussions, group work, and online platforms, making learning more interactive and participatory. Education 4.0 further advances this transformation by integrating digital technologies such as artificial intelligence and focusing on developing industry-relevant skills. Learning becomes more personalised, technology-driven, and aligned with the needs of the modern workforce. Finally, Education 5.0 represents a human-centred approach that combines advanced technology with values such as creativity, ethics, and social responsibility. It promotes intelligent co-creation, where learners not only acquire knowledge but also use it collaboratively to address real-world challenges and contribute to a sustainable and inclusive society.

Major Findings of the Study

- *Evolution of learner roles:* The study reveals a significant transformation in the role of learners from passive recipients of knowledge to active creators and collaborators in knowledge production.
- *Transformation of teacher roles:* Teachers have transitioned from authoritative knowledge providers to facilitators, mentors, and advisors who guide students in collaborative learning environments.
- *Integration of technology in education:* Digital technologies have played a crucial role in shaping modern educational paradigms by enabling interactive, personalized, and collaborative learning experiences.
- *Importance of creativity and innovation:* Modern education emphasizes creativity, innovation, and problem-solving skills to prepare learners for complex global challenges.
- *Human-centred learning in Education 5.0:* Education 5.0 highlights the importance of combining technological innovation with human values such as empathy, ethics, and social responsibility.
- *Shift toward collaborative knowledge creation:* Learning is increasingly viewed as a collaborative process involving students, teachers, and digital technologies.

Conclusion

The transformation from Education 1.0 to Education 5.0 represents a fundamental shift in the philosophy and practice of education. Traditional educational systems focused primarily on knowledge transmission and obedience, while modern educational paradigms emphasize creativity, collaboration, and innovation.

This theoretical analysis highlights how technological advancements and societal changes have influenced educational practices over time. Education 5.0 represents the culmination of this evolution, emphasizing human-centred learning, digital innovation, and collaborative knowledge creation.

For education systems to remain relevant in the 21st century, policymakers and educators must adopt innovative pedagogical approaches that foster critical thinking, creativity, and lifelong learning. Teachers must embrace

their roles as facilitators and mentors who guide learners in exploring, creating, and applying knowledge. At the same time, students must develop the skills and attitudes necessary to become intelligent co-creators of knowledge capable of addressing global challenges.

Ultimately, the future of education lies in creating learning environments where technology and human creativity work together to promote meaningful learning experiences and societal progress.

References

1. Anderson, T., & Dron, J. (2011). Three generations of distance education pedagogy. *The International Review of Research in Open and Distributed Learning*, 12(3), 80–97.
2. Bergmann, J., & Sams, A. (2012). *Flip your classroom: Reach every student in every class every day*. International Society for Technology in Education.
3. Biggs, J., & Tang, C. (2011). *Teaching for quality learning at university* (4th ed.). McGraw-Hill Education.
4. Borba, M. C., Silva, R. S., & Gadanidis, G. (2015). *Phases of digital technologies in mathematics education*. Autêntica.
5. Borden, J. (2013). Education 3.0 and the future of learning. *Educational Technology Research Journal*.
6. Cuban, L. (1986). *Teachers and machines: The classroom use of technology since 1920*. Teachers College Press.
7. Felcher, C. D. O., Blanco, G. S., & Folmer, V. (2022). Education 5.0: A systematization from studies. *Research, Society and Development*.
8. Fisk, P. (2017). Education 4.0: The future of learning will be dramatically different, in school and throughout life. *The Genius Works*.
9. Freire, P. (1970). *Pedagogy of the oppressed*. Continuum.
10. Fukuyama, M. (2018). Society 5.0: Aiming for a new human-centred society. *Japan Spotlight*, 27(5), 47–50.
11. Garrison, D. R., & Kanuka, H. (2004). Blended learning: Uncovering its transformative potential in higher education. *The Internet and Higher Education*, 7(2), 95–105.
12. Gerstein, J. (2014). The educator as a facilitator of learning in the digital age. *Educational Technology*, 54(4), 3–7.
13. Holmes, W., Bialik, M., & Fadel, C. (2019). *Artificial intelligence in education: Promises and implications for teaching and learning*. Centre for Curriculum Redesign.
14. Horn, M. B. (2015). *Blended learning and personalized education*. Education Press.
15. Huk, T. (2021). From education 1.0 to education 4.0: Challenges for contemporary schools. *The New Educational Review*.

16. Hussin, A. A. (2018). Education 4.0 made simple: Ideas for teaching. *International Journal of Education and Literacy Studies*, 6(3), 92–98.
17. Luckin, R., Holmes, W., Griffiths, M., & Forcier, L. B. (2017). Learner-generated contexts: Sustainable learning pathways through open content. In *Proceedings of the OpenLearn Conference*.
18. OECD. (2018). *The future of education and skills: Education 2030*. OECD Publishing.
19. OECD. (2020). *The future of education and skills 2030: Conceptual learning framework*. OECD Publishing.
20. Rane, N. L., Choudhary, S. P., & Rane, J. (2023). Education 4.0 and 5.0: Integrating artificial intelligence for personalized learning. *AI & Robotics Journal*.
21. Redecker, C., Ala-Mutka, K., & Punie, Y. (2011). *Learning 2.0: The impact of social media on learning in Europe*. European Commission.
22. Robinson, K. (2011). *Out of our minds: Learning to be creative*. Capstone.
23. Schiro, M. S. (2013). *Curriculum theory: Conflicting visions and enduring concerns* (2nd ed.). SAGE Publications.
24. Schwab, K. (2016). *The fourth industrial revolution*. World Economic Forum.
25. Singh, D., & Kaur, J. (2023). *The transformation of education: From education 1.0 to education 5.0*. Wisdom Leaf Press.
26. Toffler, A. (1980). *The third wave*. Bantam Books.
27. Trilling, B., & Fadel, C. (2009). *21st century skills: Learning for life in our times*. Jossey-Bass.
28. UNESCO. (2021). *Reimagining our futures together: A new social contract for education*. UNESCO Publishing.
29. Zhou, L., Wu, S., Zhou, M., & Li, F. (2020). School's out, but class's on: The largest online education in the world today. *Best Evidence in Chinese Education*, 4(2), 501–519.

Integrating AI Feedback Bot for Assignment Evaluation in Distance Education: A Case Study of the Diploma in Pre-Primary Teachers Training Programme at the Centre for Distance Education University of Kashmir

Dr Showkat Rashid Wani

Senior Coordinator
Centre for Distance Online Education
University of Kashmir
ainshrashowkat2008@gmail.com

Ishrat Mohmad

Research Scholar
PG Department of Education
University of Kashmir
ishratdm13@gmail.com

Abstract

The growing demand for personalized, timely, and consistent feedback in distance education has led to the adoption of Artificial Intelligence (AI) tools for assessment support. This paper presents a practical account of how a feedback bot was used to evaluate assignments submitted by students enrolled in the *Diploma in Pre-Primary Teachers Training Programme* at the *Centre for Distance Education*. The study aimed to test the efficiency, accuracy, and responsiveness of AI-generated feedback compared to traditional manual evaluation. Using a mixed-method approach, data were collected from 60 learners and 4 tutors through surveys, observation logs, and performance comparisons. Results revealed that the feedback bot enhanced feedback speed by 65%, improved learner engagement, and reduced evaluator workload significantly, while maintaining a high level of feedback quality. The paper also presents detailed practical demonstrations of how the bot processed assignments, detected learning gaps, and generated constructive feedback. Findings highlight the potential of AI feedback systems in distance education for scalable, student-centered assessment.

Keywords: AI feedback, distance education, assignment evaluation, pre-primary teacher training, Centre for Distance Education, digital pedagogy

Introduction

Assessment and feedback are critical components of the learning process, particularly in distance education, where the absence of face-to-face interaction often leads to delayed feedback and reduced motivation. The Centre for Distance Education (CDE), while offering a range of teacher training programmes, faces challenges such as limited faculty availability, delayed evaluation cycles, and inconsistent feedback quality.

To address these challenges, this study explored the use of a Feedback Bot, an AI-driven system designed to analyze student assignments, assess key parameters (content relevance, structure, grammar, pedagogical understanding), and generate individualized feedback instantly.

The implementation was part of the Diploma in Pre-Primary Teachers Training Programme, where learners submit reflective and practical assignments on child development, lesson planning, and classroom management. The use of AI tools such as a feedback bot provided an opportunity to enhance efficiency, maintain evaluation uniformity, and support formative learning.

Objectives of the Study

1. To introduce an AI-based feedback bot for evaluating student assignments in distance education.
2. To compare the quality and timeliness of AI-generated feedback with traditional human evaluation.
3. To assess learner perceptions of AI feedback usefulness and clarity.
4. To explore the challenges and ethical considerations in using AI for assessment.

Review of Related Literature

AI-supported learning systems are gaining momentum globally. Studies by **Holmes et al. (2022)** and **Khalil & Ebner (2021)** emphasize how intelligent tutoring and automated feedback tools reduce evaluator fatigue and enhance formative learning. **Luckin (2018)** highlights that feedback should not only correct errors but also promote reflection and self-regulation.

In the Indian context, **distance learners** often struggle due to delayed communication and minimal feedback cycles (IGNOU, 2023). The integration of AI can bridge this gap, offering scalable and responsive evaluation mechanisms.

Methodology

Research Design

A **case study design** was adopted focusing on one cohort of 60 students enrolled in the *Diploma in Pre-Primary Teachers Training Programme* during the 2023-24 session.

Participants

- **Students:** 60 distance learners (all female trainees)
- **Tutors:** 4 subject tutors
- **Evaluator/Researcher:** Course coordinator

Tools Used

1. **Feedback Bot (AI Tool):** Customized chatbot designed using GPT-based API for assignment analysis.
2. **Feedback Evaluation Rubric:** Containing criteria like clarity, relevance, depth, and language.
3. **Perception Survey:** Google Form with Likert scale items on feedback usefulness.

Procedure

1. Students uploaded their assignments in PDF/Word format to the LMS.
2. The feedback bot analyzed each assignment on four dimensions:

- o Conceptual understanding
 - o Pedagogical approach
 - o Presentation and structure
 - o Reflection and application
3. The bot generated structured feedback in 1–2 minutes per assignment.
 4. Tutors cross-verified 25% of the feedback for accuracy and fairness.
 5. Students were invited to review and respond to feedback through a reflection note.

Practical Demonstration Example

Assignment Title:

“Design a Play-Based Learning Activity for 4–5-Year-Olds on the Concept of Shapes.”

Student Response (Excerpt):

The activity involves giving children cut-outs of different shapes and asking them to paste them on a chart. The teacher will explain each shape and its features.

Feedback Bot Output:

Strengths: The activity is simple, age-appropriate, and encourages tactile learning.

Suggestions for Improvement: Incorporate **child participation** in creating shapes (e.g., tracing or drawing). Add **assessment indicators** such as “Child identifies at least three shapes correctly.”

Language Feedback: Use verbs like *encourage*, *explore*, and *create* instead of *give* to enhance participatory tone.

Overall Feedback: A promising activity that can be made more engaging through creative participation.

Tutor’s Reflection:

The feedback bot identified key pedagogical improvements effectively, aligning closely with the tutor’s own comments. Minor grammatical feedback was slightly repetitive but generally accurate.

Data Analysis and Results:

Table 1: Comparison of Feedback Efficiency (Manual vs. Feedback Bot Evaluation)

(*n* = 60 assignments analyzed; scores represent mean values or percentages where applicable)

S. No	Evaluation Parameter	Manual Evaluation	Feedback Bot Evaluation
1	Average feedback time per assignment	22 min	7 min
2	Average words per feedback note	110	150
3	Clarity of comments (1–5 scale)	3.7	4.3
4	Specificity of suggestions	3.5	4.2

S. No	Evaluation Parameter	Manual Evaluation	Feedback Bot Evaluation
5	Consistency across evaluators	Moderate	High
6	Alignment with assignment objectives	4.0	4.4
7	Depth of pedagogical insight	3.8	4.1
8	Identification of misconceptions	3.6	4.2
9	Tone and politeness of feedback	4.0	4.6
10	Response turnaround time	3–5 days	< 24 hours
11	Personalization level	Moderate	High
12	Grammar and language correction	3.4	4.5
13	Encouragement and motivation tone	3.7	4.4
14	Use of examples in feedback	2.9	4.0
15	Integration with LMS system	Manual upload	Automatic
16	Tutor workload (hours/week)	10–12 hrs	4–5 hrs
17	Frequency of revision requests	Low	Moderate (students more engaged)
18	Overall feedback reliability (%)	80%	93%
19	Student satisfaction (%)	74%	89%
20	Cost efficiency (relative effort/time)	Moderate	High

Table 2: Student Perception of AI Feedback (n = 60 Distance Learners)

S. No	Statement	Agree (%)	Neutral (%)	Disagree (%)
1	The feedback helped me understand my mistakes clearly.	92	5	3
2	The feedback motivated me to improve my next assignment.	85	10	5
3	The feedback language was clear and polite.	88	9	3
4	The suggestions were directly related to my content.	90	8	2
5	The feedback tone was encouraging rather than critical.	86	11	3
6	I received the feedback on time.	95	4	1
7	I could easily understand what to improve.	87	9	4
8	Feedback included examples that clarified my doubts.	80	12	8
9	The feedback respected my writing style.	82	14	4
10	I found the feedback more detailed than before.	89	7	4
11	The feedback bot used simple and clear words.	91	6	3

S. No	Statement	Agree (%)	Neutral (%)	Disagree (%)
12	I felt more connected to the course due to timely feedback.	84	11	5
13	The feedback helped me reflect on my teaching approach.	88	10	2
14	I trust the feedback bot's evaluation of my work.	77	15	8
15	I prefer AI feedback to handwritten tutor comments.	56	23	21
16	The feedback improved my understanding of pedagogy.	83	14	3
17	The feedback bot recognized my efforts fairly.	86	9	5
18	The feedback reduced my anxiety about assignment results.	79	15	6
19	I could act upon the suggestions easily.	88	8	4
20	Overall, AI feedback improved my learning experience.	91	7	2

Table 3: Tutor Evaluation of AI Feedback (n = 4 Tutors)

S. No	Evaluation Criterion	Excellent (%)	Satisfactory (%)	Needs Improvement (%)
1	Accuracy of content remarks	80	20	0
2	Clarity of pedagogical feedback	78	22	0
3	Language and tone appropriateness	70	25	5
4	Detection of conceptual errors	85	15	0
5	Identification of missing learning outcomes	83	17	0
6	Relevance of feedback examples	76	22	2
7	Feedback structure and sequencing	82	18	0
8	Brevity and focus of comments	75	20	5
9	Emotional sensitivity of responses	65	30	5
10	Vocabulary appropriateness for diploma level	72	26	2
11	Cultural and contextual sensitivity	69	28	3
12	Consistency across multiple assignments	88	12	0
13	System reliability and stability	92	8	0
14	Tutor workload reduction	95	5	0
15	Feedback timeliness	100	0	0
16	Ethical transparency (no bias)	100	0	0
17	Student receptivity and acceptance	83	15	2
18	Compatibility with human moderation	89	11	0
19	Potential for large-scale use	92	8	0
20	Overall tutor satisfaction with AI tool	85	15	0

Interpretation Summary

- **Table 1** shows strong improvements in efficiency, clarity, and feedback quality with the Feedback Bot, especially in speed (from 22 to 7 minutes) and personalization.
- **Table 2** demonstrates overwhelmingly positive student responses, particularly in **timeliness (95%)**, **clarity (91%)**, and **learning enhancement (88%)**.
- **Table 3** confirms that tutors found the bot to be **reliable, consistent, and workload-reducing**, though slight improvement is needed in emotional tone and contextual adaptation.

Discussion

The integration of a feedback bot in distance education yielded significant benefits in timeliness, feedback depth, and learner motivation. Students appreciated the instant nature of feedback, which allowed them to revise and resubmit assignments proactively. Tutors observed that the bot maintained consistency and impartiality, reducing the subjectivity often found in human evaluations. However, the system was not flawless—occasional over-generalized comments and limited contextual understanding were reported. Overall, the AI-assisted evaluation acted as a complement, not a replacement, for human judgment. The blended model—AI-generated feedback followed by tutor moderation—proved to be the most effective.

Ethical Considerations

- **Transparency:** Students were informed that AI tools were used for formative feedback.
- **Privacy:** Data was anonymized before analysis.
- **Academic Integrity:** The feedback bot was used only for evaluation support, not grading.

Implications for Distance Education

1. AI feedback tools can significantly reduce evaluation delays in large enrolment programmes.
2. Learners receive personalized, motivational feedback even without synchronous teacher interaction.
3. The approach supports scalable formative assessment across diverse courses.
4. Faculty can redirect time saved from grading towards student mentoring and academic counseling.

Limitations and Future Directions

- The bot struggled with contextual and cultural nuances in student writing.
- Feedback in creative or reflective assignments sometimes lacked emotional tone.
- Future development should integrate adaptive learning analytics and voice-based feedback options to enhance accessibility.

Conclusion

The study demonstrated that the AI feedback bot serves as an efficient, reliable, and student-friendly assessment support tool in distance education. It bridges the gap between submission and response, ensuring that learners feel guided and valued.

The successful implementation in the Diploma in Pre-Primary Teachers Training Programme reflects a scalable model for other teacher education programmes.

Blending AI-driven automation with human empathy can redefine feedback culture in open and distance learning, transforming it from a delayed administrative step into a dynamic, dialogic learning experience.

References

- Holmes, W., Bialik, M., & Fadel, C. (2022). *Artificial Intelligence in Education: Promises and Implications for Teaching and Learning*.
- Khalil, M., & Ebner, M. (2021). “AI-Driven Feedback in Online Learning: A Review of Tools and Impact.” *Journal of Educational Technology*, 18(4), 55–72.
- Luckin, R. (2018). *Machine Learning and Human Intelligence: The Future of Education for the 21st Century*. UCL Press.
- IGNOU. (2023). *Distance Education in India: Emerging Trends and Challenges*. Indira Gandhi National Open University.

A STUDY OF ATTITUDE TOWARDS INFORMATION TECHNOLOGY AMONG SECONDARY SCHOOL TEACHERS OF DISTRICT BUDGAM

MUDDASIR HAMID MALIK

Assistant Professor

GOVT DEGREE COLLEGE DOORU ANANTNAG

hamidmudasir509@gmail.com

ABSTRACT:

The present study investigated Attitude of secondary school teachers towards Information Technology in district Budgam of Kashmir province of Jammu and Kashmir UT, with a focus on gender and type of school. The sample consisted of 80 secondary school teachers (40 male and 40 female) from government and private schools in District Budgam. A stratified random sampling technique was employed to ensure representation across gender and type of school. Data was collected using the Attitude Scale towards Information Technology for Teachers (ASTITT-NI) by Dr Nasrin (AP Aligarh Muslim University) and Dr Fatima Islahi (Researcher). The study compared Attitude of secondary school teachers across two dimensions: (i) Government versus private secondary school teachers and (ii) Male versus Female secondary school teachers. Statistical analysis, including mean, standard deviation, and t-test was used which revealed that there is no significant difference in attitude of male, female and Govt. and private secondary school teachers' attitude towards IT. The findings of study also revealed that 50% of teachers possess positively favourable attitude, 25% of teachers possess "Highly Favourable" level of Attitude & 22.5% of teachers possess "Moderately Favourable" level of Attitude towards IT. The findings suggest that teachers, regardless of gender and type of school, generally hold positive attitude towards the integration of IT in education.

Key words: Attitude, Information technology, secondary school teachers

Introduction:

Present age, is the age of Information and communication technology. It has revolutionized every aspect of human life including how humans interact, communicate, learn, and disseminate knowledge and information. Be it business, education, health care or any other sector of human life. Information technology has significantly improved its efficiency and effectiveness. "Information Technology is a scientific, technological and engineering discipline and management technique used in handling the information, it's application and association with social, economic and cultural matters." - UNSECO (2002). Information Technology is referred to the knowledge process and its applying methods, processing, transferring and making information in progress (M.R. Karami.2003). IT includes gathering, organizing, storing, publishing and using the information in the form of sound, picture graphic, text, number, ... by using the computer and telecommunication tools....(F.L. Raees dana 2002). The rapid advancement in Information technology has also significantly influenced Education. Information technology in Education is any hardware and software technology that contribute in educational information processing. It refers to the use of computers, software, networks and other digital technologies to store, transmit and manage information and knowledge. It plays crucial role in transforming education by improving accessibility, enhancing teaching methods, and promoting personalised learning. Presently it has become an integral part of education system, right from schools to universities. Researchers report technology

based instructional applications as an effective alternative to traditional teaching methods, transforming the isolated, teacher centred, lecture-based instruction and text bound classrooms into rich, student focused, interactive knowledge environments. On account of its recognized potential for learning support and development of learning skills, competencies and proficiencies (Hernandez, 2017; Muralidharan, Niehaus, & Sukhtankar 2017; Tarhin, Hone, & Liu, 2015; Yilmaz, 2016), Information Technologies (ITs) have been directly or indirectly included in different plans and policies for education by governments of different countries. India recognized the importance of IT in education as early as in 1984-85 when the Computer Literacy and Studies in Schools (CLASS) was introduced as a pilot project with the introduction of BBC micro-computers. Many more advanced schemes have been initiated and implemented since then but still the so-called technology revolution in schools never took place as expected, thereby making it a major concern to the education stakeholders of the nation. Research findings in the area of IT appear to be consistent, suggesting that in spite of the heavy investments on IT the educational advantages of it are still not adequately exploited by teachers (Ertmer & Ottenbreit-Leftwich, 2010; Inan & Lowther, 2010; Kim, Kim, Lee, Spector, & DeMeester, 2013).

The concept of attitude is frequently used in psychology. Attitude is a complex mental state involving beliefs and feelings and values and dispositions to act in certain ways. It is a hypothetical construct that represents an individual's degree of like or dislike for something. The attitude refers to person's emotions, beliefs and behaviour towards particular objects, things, a particular person or particular event. Attitudes of a normal human being are formed on the basis of a day to day experience and it mainly depends upon the upbringing of human beings. It has a powerful influence over the behaviour of a person. Psychologists have defined attitudes as a learned tendency of a human being which helps them to evaluate the things in a certain manner. It may include evaluating of general people, social issues, objects etc. Attitudes vary from person to person. It may be found as positive attitude, negative attitude and in certain times it may be neutral. As per Sadiamber (2008), An attitude is often defined as a tendency to react favourably or unfavourably towards a designated class of stimuli, such as national and radical group, a custom or an institution (Anastasi 1976). Attitude is a mental state that is a combination of feelings beliefs and tendencies towards certain objects or situations (William James 1890). A psychological tendency that is expressed by evaluating a particular entity with some degree of favour or disfavour (Eagly and Chaiken 1993).

The role of 21st century teacher has become very challenging, complex and multi-faceted on account of the following reasons: there is the explosion of knowledge and radical changes are occurring in the content areas of all disciplines-humanities, sciences and social sciences. Teachers cannot ignore this challenge for preparing 21st century generation. The present teacher is expected to be updated and conscious of various explosions-explosion of knowledge explosion of population, explosion of expectations and explosion of technology, etc. We exist in a new environment that is rapidly changing. From practicing to socializing, learning to engaging, IT has an influence on almost every area of our lives. Young people's contact, networking, encouragement, access to information and preparation has all evolved as a result of the modern age. We must understand that young people are an internet community, with access from a multitude of means like laptops, television, and phones. As technology becomes more and more ingrained in our society, we must provide our students with concrete and current interactions that allow them to successfully interact with technology and prepare them for lives. It is widely accepted that when innovations and benefits are backed by technical know-how and sound pedagogy, beginners are motivated and purposefully involved in the learning process. Education has benefited from information technologies in a number of respects and at varying levels. Information technology has had an influence on teaching and studying from both a sociological and economic perspective. Information technology such as immersive multimedia, computer conferencing, and the internet are being used by a variety of organizations in developing countries to provide guides. It is important to integrate technical developments into the Indian

lecture room in order to keep up with the technological transition in the developing worlds' educational-learning systems. (2021) ICT helps in strengthening the quality of education to make teaching-learning an active process that is connected to real life situation. The use of ICT in education not only improves the learning process but also changes the content of education, institutional infrastructure and the pattern of education system. ICT is a tool that supports the learning process and holds the promise to new solutions for the challenges that education is facing today (Oduma & Ile, 2014) [18].

Teachers' roles have changed from instruction to guidance, helping students find their own unique learning styles and assessing their progress. Students' roles have also changed by becoming active participants in collaborative, authentic learning that is based on community content (Kozma et al., 2003) .

The application of information technology in the teaching and learning process is a relatively new phenomenon that has drawn the attention of educational researchers. Teachers and administrators face a challenge in effectively integrating this technology into classroom practises. Several studies claim that incorporating new technologies into the classroom is critical for students to learn how to function in the information age. As Yelland (2000) pointed out, traditional educational environments do not appear to be suitable for preparing learners to function and be productive in today's workplaces. The use of ICT in education can help with motivation and understanding in general. IT integration in education refers to a technology-based teaching and learning process that closely relates to the use of learning technologies in schools in order to familiarize students with technology and help them learn more effectively in a technology-based environment. The importance of IT integration in schools, particularly in the classroom, cannot be overstated. This is because the use of technology in education has a significant impact on pedagogical aspects, as the application of technologies will lead to effective learning with the assistance and support of IT elements and components (Jamieson-Procter et al; 2013). When it comes to effective learning with the use of computers as learning aids, information technology aids and complementary support for both teachers and students (Jeorge et al; 2003). According to Duhaney and Zemel (2000), and D'Ignazio (1989), inter alia, today's teachers must incorporate technology in their jobs in order to comply with contemporary learning demands. In the information age, it is impossible to obtain, digest and utilize, all available knowledge. In this environment, ICT plays a role in accessing and managing knowledge, while making learning both easier and engrossing. At the same time, technologies develop "critical thinking, inquiry, and problem solving" (Alghazo, 2006, p. 328) abilities.

The integration IT in classroom teaching depends on various factors, apart from infrastructure and resource availability, the attitude and perception of teachers towards the use of IT in classroom teaching greatly influence it. In the light of above, the problem was selected for the investigation.

Literature review

Researcher have suggested that the success for any initiative to implement technology in classrooms depends upon the support and attitudes of teachers involved (Loveless and Bohlin, 2001; Bitner and Bitner, 2002; Romano, 2003). Teacher's attitude has been found to be major predictors of use new technologies in instructional settings (Almusalam, 2001). Jencius and Paez, (2003) suggested that understanding attitudes is important because attitudinal barriers can hinder the adoption of new technology. Similarly, awareness of user attitudes towards computers is a critical factor in enhancing the acceptance of computers as well as understanding current user behaviour such as computer usage (Al-Jabri & Al-Khaldi 1997). Griffin (1988) found that teacher's attitude towards computers is an important factor related to the teachers' role towards the effective use of computers in education. Woodrow (1992), Rogers (1995), Watson (1998) portrayed that the teachers' attitudes toward the utilization of technology have been recognized as a crucial aspect for the success of technology

integration in his/her training. It has also been found that pre-school teachers use information technology mostly, to prepare lessons as well as to plan music activities. It was also ascertained that the attitudes of teachers towards information technology affected the motivation of learners (Yurt & Cevher Kalburan, 2011). Akkoyunlu (2006) found that pre-administration instructors with more information about technologies have a progressively positive attitude towards the utilization of technologies in teaching and learning environments technology. Grabe and Grabe (2001) explained that the teachers who used information technologies to enhance the students learning in every subject because it helps to engage the students in thinking, decision making, problem-solving, and reasoning behaviours.

Objectives of study:

1. To study the attitude of secondary school teachers towards information technology.
2. To compare the attitude of male and female secondary school teachers towards information technology.
3. To compare the attitude of Govt and private secondary school teachers towards information technology.

Hypotheses:

- **Ho¹.** There is no significant difference between the attitude of male and female secondary school teachers towards information technology.
- **Ho².** There is no significant difference between the attitude of Govt. and Private secondary school teachers towards information technology.

Materials and method:

Quantitative research technique has been used in this study. Survey was conducted to collect primary data and to prove the hypotheses. Participants were invited to complete the questionnaire with a schedule to collect personal information. All subjects were asked to respond to the questionnaire and their responses were guaranteed to be confidential

Sample:

The total sample for the present study was 80 secondary school teachers both male and female, govt and private from eight secondary schools of Tehsil Chadura. The sample was selected by using stratified random sampling technique. The investigator selected the sample by using stratified random sampling technique in which the strata were formed on the basis of gender and type of schools. Since Budgam district has many educational zones, the investigator has selected a sample of 80 secondary school teachers from zone Chadura. The representative sample of 80 secondary school teachers was selected randomly from eight below mentioned schools:

- Government higher secondary school chadura.
- Government Girls Higher Secondary School Nagam.
- Government Boys Higher Secondary Nagam.
- Sheikh-ul-Allam High school Nagam.
- Sheikh-ul-Allam High School Chadura.
- Govt. Higher Secondary School Wathora.

- Peace School Nagam.
- Govt. Higher Secondary School Pazan.

Tools used:

For the measurement of attitude towards Information technology, Attitude towards information technology (ASTITT) scale For Secondary School Teachers” developed by Dr. Nasrin (Associate professor Aligarh Muslim University) and Dr. Fatima Islahi was used.

Statistical treatment: The data collected was subjected to the following treatment: Mean, SD,& t-test

ANALYSIS AND INTERPRETATION

In order to prove the hypotheses whether they are accepted or rejected, the data was statistically analyzed by employing t-test

Table 1: Showing the Level of Attitude towards IT among secondary school teachers of

S. No	Range of raw scores	Levels of Attitude for IT	No. of secondary school teachers	Percentage
1.	143 & More	Extremely Favourable Attitude	1	1.25%
2.	126 to 142	Highly Positive Attitude	20	25%
3.	109 to 125	Positively Favourable Attitude	40	50%
4.	85 to 108	Moderate Favourable Attitude	18	22.5%
5.	68 to 84	Unfavourable Attitude	1	1.25%
6.	50 to 67	Highly Unfavourable Attitude	0	0%
7.	49 & less	Extremely Unfavourable Attitude	0	0%

The table categorizes attitude towards IT into seven levels: Extremely Favourable Attitude, Highly Positive Attitude, Positively Favourable Attitude, Moderate Favourable Attitude, Unfavourable Attitude, Highly Unfavourable Attitude, and Extremely Unfavourable Attitude. The result indicates that 50% of teachers possess “Positively Favourable” level of Attitude towards IT. 25% of teachers possess “Highly Favourable” level of Attitude towards IT. 22.5% of teachers possess “Moderately Favourable” level of Attitude. 1.2% of teachers have “Extremely Favourable” level of Attitude towards IT. 1.2% of Teachers possess “Unfavourable” level of Attitude towards IT. There are no teachers in the “Highly Unfavourable” and “Extremely Unfavourable” categories, as indicated by 0% in these groups. The data suggests that secondary school teachers of District Budgam possess “Positively favourable” attitude towards IT.

Table 2: Showing the Attitude of Male and Female Secondary School Teachers Towards Information Technology.

Variable	Gender	N	Mean	SD	Df	t-Value	P-Value	Remarks
Attitude towards IT	Male	40	116.92	11.83	78	.214	.831	Not significant
	Female	40	117.50	12.186				

It is evident from above mentioned table that mean score of Attitude towards IT among male and female secondary school teachers came out to be 116.92 and 117.5 respectively. SD value found out to 11.83 and 12.186 be respectively. The calculated p-value for difference between attitude towards IT among male and female secondary school teachers comes out as 0.831 which is greater than 0.05 hence the difference stands not significant. Therefore, the hypothesis i.e. there exists no significant difference between attitude of male and female secondary school teachers towards information technology is accepted.

This shows that there exists no significant difference in attitude of male and female secondary school teachers towards Information Technology. Results reveal that gender does not play a significant role in determining attitude of male and female secondary school teachers towards information technology.

Table 3. Showing the Attitude of Govt. and Private Secondary School Teachers Towards Information Technology.

Variable	Type of school	N	Mean	SD	Df	t-Value	p-value	Remarks
Type of School	Govt.	40	117.6	12.19	78	.303	.762	Not significant
	Private	40	116.7	11.81				

It is evident from the above-mentioned table that mean score for Attitude Towards IT between Government and Private secondary school teachers came out to be 117.6 and 116.7 respectively. SD value found out to be 12.19 and 11.81 respectively. The calculated p-value for difference of Attitude towards IT among Government and Private secondary school teachers comes out as 0.762 which is greater than 0.05 hence the difference stands not significant. Therefore, the hypothesis i.e. there exists no significant difference between the Attitude of Government and Private secondary school teachers is accepted.

This shows that there exists no significant difference between the attitude of Government and Private secondary school teachers towards IT. Results reveal that Type of school does not play a significant role in determining teachers Attitude towards IT among Government and Private secondary school teachers.

EDUCATIONAL IMPLICATIONS:

- Positive attitude towards IT among teachers suggests the readiness for upskilling, therefore different pre-service, & in-service training programmes and diploma in ICT skills and educational technology should be introduced.
- ICT tools such as tv, internet, computer, laptops, tablets and many other hardware & software applications can be utilized in teaching learning process to improve, access, flexibility, and provide personalized learning opportunities.
- ICT can be employed to improve access and quality of teacher learning. ICT tools enhance teaching and facilitate learning by using multi-modal courseware, integration of ICT enabled pedagogical innovations can be used to develop higher order thinking skills among learners.
- Proper initiatives should be taken to develop a comprehensive subject-specific training programme which will upskill and train teachers in pedagogical use of IT in different disciplines.
- IT tools enable the teachers to adapt teaching strategies to suit diverse learner needs, allowing for personalized learning paths.

- Information and communication technology are considered as an effective and powerful tool to support inclusive education.
- Research should be conducted to understand specific needs and challenges faced by teachers in different contexts and tailor interventions accordingly.
- Encourage collaboration and knowledge sharing among teachers to foster a supportive environment for IT or ICT integration.
- Government should formulate policies and take necessary steps to ensure equitable access to reliable internet, suitable hardware, & appropriate software in all schools.
- IT or ICT tools and devices can transform the learning environment from teacher-centred to a student-centred one, fostering greater engagement and active learning.
- IT or ICT is already included in teacher education programs and courses, it needs to be updated and efforts should be made to make it more practical oriented.
- Practical barriers like inadequate infrastructure, limited access to technology, and insufficient technical support should be addressed through proper efforts.

References:

- Afsana, A. 2013. Information and Communication Technologies in Education. A study of Muslim students access to mobile phone. *Interdisciplinary journal of social sciences*. 3(2), 23-29.
- Ajzen I and Fishbein M. understanding attitudes and predicting social behavior, Englewood-Cliffs Nj prentice Hall 1980. Ajzen, I. and Fishbein, M. (1980). *Understanding Attitudes and Predicting Social Behavior*. New York: Prentice Hall. Ajzen, I. and Fishbein, M. (2000). Attitudes and the attitude–behavior relations: reasoned and automatic.
- Albirini, A. 2004. Teachers' attitude toward information and communication technologies: The case of Syrian EFL teachers. *Computers & Education*, 47(4) , 373-398.
- Albirini, A. (2006). Cultural perceptions: The missing element in the implementation of ICT in developing countries. *International Journal of Education and development using ICT*, 2(1), 49-65.
- Almusalam, S, N. (2001). Factors related to the use of computer technologies for professional tasks by business and administration teachers at Saudi technical colleges. (Doctoral Dissertation, the Ohio state University, 2001). ProQuest Digital Dissertations, UMI NO. AAT 3011019
- Bitner, N & Bitner, J. (2002). Integrating technology into classroom: Eight keys to success. *Journal of Technology and Teacher Education*, 10, 95-100.
- F.L. Raees dana. (2002). Applications and benefits of information technology, *Educational Technology*, Issue 2, p. 16.
- Hernandez, R. (2017). Impact of ICT on Education: Challenges and Perspectives. *Journal of Educational Psychology* 5(1), 337-347.
- Inan, F. & Lowther, D. (2010). Factors affecting technology integration in K-12 classrooms: A path model. *Educational Technology Research and Development*, 58(2), 137-154.
- Joy, H. B. H., & Manickam, L. S. (2002). Computer assisted instruction: attitudes of teachers and the

correlates. *Perspectives in Education*, 18(4), 235-242.

- Jorge, C., Gutierrez, E.R., Garce, E. G., Jorge M.C.A., & Diaz, M.B. (2003). Use of the ICTs and the Perception of E- Learning among university students: A differential perspective according to gender to gender and degree year group. *Interactive Educational Multimedia*, 7, 13-28.
- Khokhar, j, A. and Gubab, F. and Javid, s. (2017), Information communication technology intregation: Trained secondary school teachers dilemma. *Journal of research in social sciences*-5(1),2305-6533.
- Mangal, S. K., & Mangal, U., 2017: *Essentials of Educational Technology*, PHI Learning Private Limited, Delhi.
- M.R. Karami. (2003). Suitable training with information age, the growth of educational technology, p. 45 No. 20 No
- Muralidharan, K., Singh, A., & Ganimian, A. J. (2017). Disrupting education? Experimental evidence on technology-aided instruction in India. NBER Working Paper No: 22923. Retrieved from <https://www.nber.org/papers/w22923>
- Misra, B.2024.A Study on Attitude of Secondary School Teachers Towards Information and Communication Technology. *International Journal of Multidisciplinary Education and Research* www.multidisciplinaryjournals.in.(9),37-39.
- Mangal, S. K., & Mangal, U., 2017: *Essentials of Educational Technology*, PHI Learning Private Limited, Delhi.
- Mansuri, L. J. (2017). Attitude Towards Information Technology: A Study of Secondary School Teachers, *Scholarly Research Journal for Interdisciplinary Studies*, 4 (35), 13 - 18.
- Mahajan, G. (2016). Attitude of teachers towards the use of technology in teaching. *International Journal of Education and Applied Social Sciences*, 7(2), 144-146.
- Okoli, C., & Schabram, K. (2010). A Guide to Conducting a Systematic Literature Review of Information Systems Research. *Sprouts: Working Papers on Information Systems*, 10(26).
- Oduma CA, Ile CM.(2014) “ICT Education for Teachers and ICT Supported Instruction: Problems and Prospects in the Nigerian Education System.” *African Research Review*,8(2),199-216
- P. Kumar, “Advantages of information and communication technologies in distance,” no. 1, pp. 10–
- Poppel, H., & Goldstein, B., (1987). *Information technology: the trillion-dollar opportunit*. U.S.A.: Published by McGraw-Hill. Retrieved from: http://books.google.com.ua/books/about/Information_technology.html?id=xPyiWvji2lAC&redir_esc=y [in English].
- Panching, M and Barman, S and Sharma H, P.2024, Attitude of school teachers towards Information Technology. *International Journal of Novel research and development/ IJNRD/ IJNRD.ORG*, (9),438-445.
- Romano, M.T. (2003). *Empowering teachers with technology*. Lanham, MD: scarecrow.
- R.C.Mishra. *Management of educational research*, India: Kul Bhushan nangia (APH Publishing corporation).2005.

A STUDY ON EMOTIONAL INTELLIGENCE AND ACADEMIC STRESS AMONG PROFESSIONAL STUDENTS OF DISTRICT PULWAMA.

Jahangir Rashid

(Research scholar in Education)

Cluster university of Srinagar, (IASE)

Email: Jahangirrashid40@gmail.com

ABSTRACT

The study explores the relationship between emotional intelligence and academic stress among professional students in the Pulwama district of Jammu and Kashmir. Emotional intelligence is a key factor influencing how individuals cope with academic challenges, making its investigation particularly relevant for students undergoing professional education. The research aims to assess the levels of emotional intelligence and academic stress, comparison of emotional intelligence and academic stress on the basis of gender and the relationship between emotional intelligence and academic stress. The study utilized a sample of 160 professional students by using a stratified random sampling technique; the study employs standardized tools such as Emotional Intelligence Scale by Dr. Arun Kumar Singh and Shruti Narain and Academic Stress Scale by Dr. Uday K. Sinha. The data was analyzed by using statistical techniques viz- mean, Standard Deviation, t-test and Pearson's product moment correlation to assess the levels of emotional intelligence and academic stress. The results of the study revealed that there is an average level of emotional intelligence and academic stress among professional students. Also the result indicated that there is no significant difference in emotional intelligence between male and female professional students. Furthermore, with regard to academic stress, the study found no significant difference between male and female professional students. The study also found the negative but significant relationship between emotional intelligence and academic stress, indicating that higher emotional intelligence is associated with lower academic stress, and conversely, lower emotional intelligence correlates with higher academic stress levels. The findings underscore the critical role of emotional intelligence in managing academic stress among professional students.

Keywords: Emotional intelligence, Academic stress, Professional students.

Introduction

“The National Education Policy 2020 lays particular emphasis on the development of the creative potential of each individual. It is based on the principle that education must develop not only cognitive capacities - both the ‘foundational capacities’ of literacy and numeracy and ‘higher-order’ cognitive capacities, such as critical thinking and problem solving – but also social, ethical, and emotional capacities and dispositions.”

- National Education Policy 2020

Education empowers individuals and serves as a powerful tool for changing perspectives around the world. An educated person is equipped to confront and manage various challenges. The right education fosters moral values and enhances personal growth. As a social institution, education not only provides essential knowledge

and facts but also develops employability skills, cultural norms, social ethics, and core values. Education is a comprehensive system that imparts knowledge, skills, techniques, and information to people while making them aware of their duties and rights towards their families, society, and the nation. It offers a clear and objective perspective for understanding the world. Moreover, education cultivates leadership qualities by broadening knowledge across various subjects and guiding individuals in managing emotions and values effectively.

Education always remains a means of searching for quality and excellence. It serves as a pathway to success and fosters the development of responsible citizens. It provides the potential for the human mind to explore a wealth of possibilities, a clear vision for the future and the opportunity for personal fulfillment.

A holistic and multidisciplinary education seeks to develop all aspects of human potential—intellectual, aesthetic, social, physical, emotional, and moral—in an integrated way. This approach will foster well-rounded individuals who possess essential skills for the 21st century across diverse fields, including the arts, humanities, languages, sciences, social sciences, and various professional, technical, and vocational areas.” – “National Education Policy” 2020 (Chapter 11.3)

A professional educational society has the responsibility to remain dynamic and intellectually rigorous. This means that professionals should dedicate their ethical and cognitive skills to tackling current and future challenges. Professional education should not only focus on essential technical expertise and skills but also foster a sense of social responsibility, an appreciation for human values and relationships, and the ability to critically examine situations without bias. While professionals play a crucial role in shaping the framework of national life, this framework is heavily influenced by their previous rational and ethical experiences, particularly their professional education.

Students in professional programs, especially in new areas of study, often experience stress due to the transitional environment of college life. Being away from home, they must adapt to a different social environment while striving to achieve academic success. This stress is a common challenge for these students, particularly when they struggle to cope with the pressures of professional education. Education plays a crucial role in shaping individuals’ futures by providing them with the knowledge and essential skills needed for personal and professional development.

EMOTIONAL INTELLIGENCE:

The importance of Emotional Intelligence (EQ) in achieving success and happiness in life cannot be denied. Emotional intelligence refers to the ability to understand, utilize, and manage one’s emotions effectively (Goleman,D) 1995. Individuals with high emotional intelligence can harness their emotions to build stronger relationships, pursue their goals, and succeed in various areas of life. This involves the wise management of emotions, allowing for better communication, empathy towards others, and effective conflict resolution.

Moods and emotions have significant intellectual implications, and the ability to control them rather than be overwhelmed by them is what defines emotional intelligence, or being “intelligent regarding emotions.” It enables individuals to connect with their feelings, transform intentions into actions, and make timely decisions. Emotional intelligence not only involves managing one’s own feelings but also comprehending the emotions of others effectively. Individuals with high emotional intelligence are capable of recognizing their current feelings, understanding the importance of those emotions, and predicting how their emotions may affect others. Studies indicate four distinct components of emotional intelligence: the capacity for emotional perception, the ability to use emotions for reasoning, the skill to comprehend emotions, and the talent for managing emotions.

ACADEMIC STRESS

Individuals can encounter various stressors, ranging from traumatic life events to the ongoing pressures and hassles of daily life. Academic stress specifically refers to the mental distress students experience due to the awareness of potential academic challenges, the fear of academic failure, or the pressure of competing in academic competitions. According to Bisht (1989), *academic stress* is a demand on students' cognitive abilities posed by their coursework that exceeds or strains their internal or external resources. During school, academic stress can manifest in different aspects of a child's immediate environment, including school, home, neighborhood, and friendships. Stressors are the environmental and personal situations that contribute to stress (Lazarus, 1990).

Academic stress, characterized by mental discomfort, can result from the frustration associated with the possibility of academic failure, or even the awareness that it could occur (Gupta & Khan, 1987). When parents do not understand their child's needs or fail to meet their expectations, the child may experience increased stress. Additionally, when siblings or friends excel academically, it can further contribute to feelings of stress in the student.

LITERATURE REVIEW

Dr. Vajih Ashhar (2024) examines the relationship between emotional intelligence (EI) and perceived stress among college students. The findings reveal a strong negative correlation ($r = -0.72$) between EI and stress, indicating that students with higher EI report significantly less stress. Furthermore, a significant difference exists between high and low EI groups, with those in the high EI group exhibiting improved stress management skills. Gender differences were also noted, indicating that boys and girls perceive and handle stress differently. These results underscore the essential role of emotional intelligence in mitigating stress and highlight the need for targeted interventions to improve emotional resilience among students.

Shailendra R, Patil et al. (2023) investigated the connection between educational performance and emotional intelligence (EI), focusing on self-regulation, self-awareness, self-motivation, and social competence among Post Graduate Management and Engineering students. Their study found a significant positive correlation between emotional intelligence levels and academic achievement.

Khorasani et al. (2023) explored the effects of emotional intelligence training on the level of emotional intelligence and academic stress among medical students. The results supported the hypothesis, showing that an educational intervention based on emotional intelligence could significantly improve students' emotional intelligence skills while decreasing their academic stress and reactions to stressors. The findings revealed that the overall level of emotional intelligence and scores in its dimensions—including self-awareness, self-management, social awareness, and relationship management—improved. Additionally, this study demonstrated that emotional intelligence training had a significant direct effect on regulating and controlling students' responses to stressors.

Radhika, Sonia et al. (2019) identified the factors affecting students' emotional intelligence in Delhi. The study assessed the connection between emotional intelligence and academic performance of Management students, and a moderate relationship was found. Emotional intelligence (EI) of students is affected by the behaviors of their teachers, friends, and family atmosphere

Jahan K (2020) examined the relationship between emotional intelligence and stress among undergraduate college students in Patna town. The study utilized an incidental cum purposive sample and employed the Emotional Intelligence Scale and Personal Stress Source Inventory. Results indicated a significant negative

correlation between emotional intelligence and stress in male and female students. Additionally, female students exhibited higher emotional intelligence levels compared to male students.

Kamal Mohanta (2024) studied the relationship between academic stress and emotional intelligence among 300 male and female 10th-grade students. Emotional intelligence was measured using a scale by Dr. Arun Kumar Singh and Dr. Shruti Narain, while academic stress was assessed with Dr. Uday K. Sinha's Assessing Academic Stress Scale. Data analysis, including t-tests and correlation coefficients, revealed no significant relationship between emotional intelligence and academic stress. Additionally, there were no differences in academic stress levels between male and female students, but rural students reported higher levels of academic stress than urban students.

Dr. Vajih Ashhar (2024) examines the relationship between emotional intelligence (EI) and perceived stress among college students. The findings reveal a strong negative correlation ($r = -0.72$) between EI and stress, indicating that students with higher EI report significantly less stress. Furthermore, a significant difference exists between high and low EI groups, with those in the high EI group exhibiting improved stress management skills. Gender differences were also noted, indicating that boys and girls perceive and handle stress differently. These results underscore the essential role of emotional intelligence in mitigating stress and highlight the need for targeted interventions to improve emotional resilience among students

Singh et al. (2023). Comparative Study of Academic Stress, Emotional Intelligence, and Academic Performance. The primary aim of this study was to conduct an empirical examination of the relationship between academic stress and emotional intelligence among secondary school students. Specifically, the study sought to determine whether differences in academic stress and emotional intelligence exist based on gender, family structure, and being a single child. ****Methodology:**** This study employed a correlational research design.

****Findings:**** The results revealed a significant positive correlation between emotional intelligence and academic performance among students. Additionally, students enrolled in central board schools exhibited higher levels of emotional intelligence compared to those in state board schools, although there was no significant difference when compared to students in matriculation board schools. Similarly, students in central board schools performed better academically than their counterparts in state and matriculation board schools at the secondary level.

Ahmad R, Chaudhary P, and Randhawa RK (2021) conducted a descriptive research study to assess stress levels among college students at a selected Government College of Nursing in Srinagar, Jammu, and Kashmir, India. The study revealed moderate student stress levels and no statistically significant gender-related associations.

Roy s. et al. (2021), conducted a study on emotional intelligence and academic stress among undergraduate students. The sample consisted of 119 students aged 18 to 24 from various colleges in Kerala. The study found a significant relationship between emotional intelligence and academic stress. It also found a significant difference in emotional intelligence based on gender. Males obtained higher emotional intelligence than females. Moreover, there is no significant difference in academic stress among males and females.

SIGNIFICANCE OF THE STUDY

Academic stress is increasingly common among students, and emotional intelligence (EI) may play a significant role in mitigating its effects. Understanding how EI—composed of self-awareness, self-regulation, empathy, and interpersonal skills—can enhance students' coping mechanisms is essential for fostering resilience and promoting academic success. High levels of academic stress are linked to negative outcomes, such as anxiety

and poor performance, making it imperative to research strategies that improve students' well-being. This important study examines the vital connection between emotional intelligence (EI) and academic stress among professional students, a group that frequently experiences increased academic and emotional pressures. Professional education requires significant cognitive engagement, effective time management, and resilience, which can result in considerable stress if not managed properly. By understanding how EI can help reduce stress, we can gain valuable insights into promoting better mental health and improving academic performance.

OBJECTIVES OF THE STUDY

1. To study the level of emotional intelligence among professional students of district pulwama.
2. To assess the level of academic stress among professional students of district pulwama.
3. To study the difference in emotional intelligence among professional students on the basis of gender in district pulwama
4. To examine the difference in academic stress among professional students on the basis of gender in district pulwama.
5. To study the relationship between emotional intelligence and academic stress among professional students of district pulwama.

HYPOTHESES OF THE STUDY

1. H_0^1 : There is no significant difference in emotional intelligence among professional students on the basis of gender in district pulwama.
2. H_0^2 : There is no significant difference in academic stress among professional students on the basis of gender in district pulwama.
3. H_0^3 : There is no significant relationship between emotional intelligence and academic stress among professional students in district pulwama.

RESEARCH METHODOLOGY

This study employs a **quantitative approach** with a **descriptive survey** method to investigate the study on professional students enrolled in various professional institutions within the Pulwama district. The population for the present study consists of professional students of Kashmir valley from Pulwama District. It includes both male and female professional students from Pulwama district. The sample of present investigation is drawn from the different government and private colleges in Pulwama district. The investigator has taken **160** professional students. For this purpose, the investigator prepared a list of professional institutes/ colleges with a selected number of male and female professional students. The investigator used **stratified random sampling** technique in the present study. the study employs standardized tools which are Emotional Intelligence Scale (**EIS-SANS**) by Dr.Arun Kumar Singh and Dr. Shruti Narain (2014) Scale For Assessing Academic Stress (**SAAS**) Prepared by Dr. Uday k. Sinha, Nepal and Sharma (2001) The data is analysed by using statistical techniques mean, standard deviation, **t-test** and **Pearson's product moment(r)** correlation to assess the levels of Emotional Intelligence and Academic Stress with respect to comparison between male and female students and correlation between the two variables Emotional Intelligence and Academic Stress among professional students.

SAMPLE SIZE

In this study, *a stratified random sampling* technique was employed to select **160** students from different professional courses across four randomly selected institutes/colleges in Pulwama as previously mentioned, this study was limited to the Pulwama district only.

SAMPLING FRAME

The study focuses on professional students enrolled in various professional institutions within the Pulwama district. These selected institutions offer a range of diverse professional programs, including paramedical sciences, information technology, education, and law.

The sampling frame has been stratified by **institution** and **gender** to ensure fair representation

Table 1: Distribution of the sample across selected institutes by gender

Institutes/colleges	Male	Female	Total
Phoenix paramedical college pulwama	20	20	40
Master institute of information technology	15	15	30
Skylark institute of paramedical sciences	20	20	40
KCEF college of education/law college Pulwama	25	25	50
TOTAL	80	80	160

TOOLS USED IN THE STUDY

- Emotional Intelligence Scale (EIS-SANS): by **Dr.Arun Kumar Singh and Dr. Shruti Narain (2014)**
- Scale For Assessing Academic Stress (SAAS): Prepared by **Dr. Uday k. Sinha, Nepal and Sharma (2001)**.

STATISTICAL TECHNIQUES USED IN THE STUDY

The following statistical techniques were used to analyze the data: Mean, Standard deviation, t- test, and Correlation

Analysis and interpretation

Objective 1: To study the level of emotional intelligence among professional students of district Pulwama

Table 2 Distribution of professional students on different levels of Emotional intelligence

S.No.	Range of score	Level of Emotional Intelligence	Number of students	Percentage
1	20 or less	Low EI	45	28.1%
2	21 to 26	Average EI	93	58.12%
3	27 and above	High EI	22	13.8%
Total			160	100%

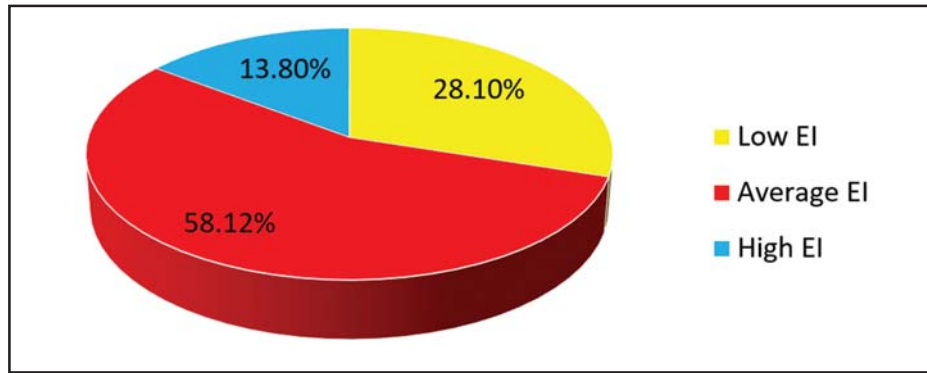


Fig 1: showing the graphical representation of the percentage distribution of professional students on levels of emotional intelligence

Table 2. provides the percentage distribution of emotional intelligence (EI) levels among professional students of Pulwama district. The respondents have been primarily classified under three categories of emotional intelligence (low, average and high). Out of the total 160 sample respondents, 45 students (28.1%) show low emotional intelligence representing for more than a quarter of the sample might struggle to understand and regulate both their own emotions and the emotions of others. however, 93(58.12%) sample respondents fall within the average level of emotional intelligence suggesting that more than half of the students have a moderate degree of emotional intelligence and thus possess the fundamental ability to handle emotions in both personal and social situations. Considering the high level of emotional intelligence, only 22 students (13.8%) fall under the category. Thus a very small portion of sample possess strong emotional awareness and regulation abilities, essential for managing academic pressure and effectively handling interpersonal relationships. Thus, the proposed objective which reads as “To study the level of emotional intelligence among professional students of district pulwama” has been effectively realized

Objective 2: To assess the level of academic stress among professional students of district Pulwama

Table 3 Distribution of professional students on different levels of academic stress

S.No.	Range of score	Level of academic stress	Number of students	Percentage
1	0 to 8	Low	29	18.12%
2	9 to 21	Average	101	63.12%
3	22 and above	High	30	18.75%
Total =			160	100%

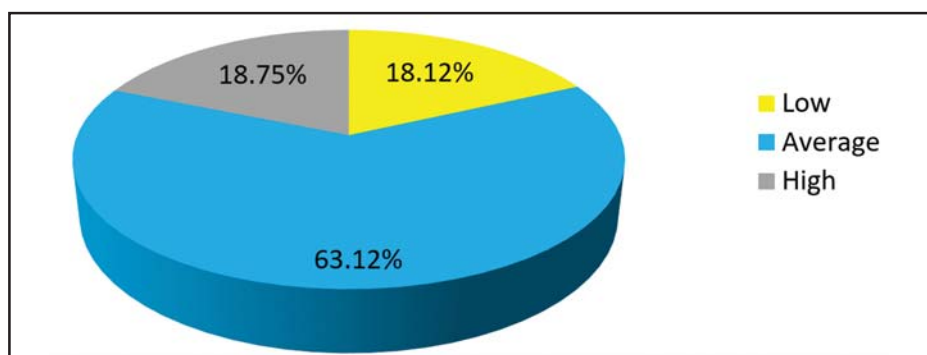


Fig 2. graphical representation of the percentage distribution of professional students on levels of academic stress

Table 3: Provides the percentage distribution of academic stress (AS) levels among professional students of Pulwama district. The table primarily depicts the sample respondents falling under three categories of academic stress I.e., low, average and high levels of academic stress based on the range of raw scores. A total of 29 (18.12%) respondents fall under the low level of Academic Stress level which is suggestive of the fact that very lesser number of sample respondents experience the low academic stress. This shows that a comparatively small proportion of students feel minimal stress in their academic activities. However the largest portion of sample students 101 (63.12%), are classified as experiencing average stress. This indicates that most students deal with a moderate or controllable level of academic stress. Since this group represents the highest percentage, it highlights that academic stress is a common concern among students, although it is not extreme for the majority. A considerable portion of students, 30 (18.75%), are falling under the category of high levels of academic stress. This group represents students who might be having difficulty managing academic demands and may need specific interventions or support. Therefore majority of the participants experience an average level of academic stress.

Objective 3: To study the difference in emotional intelligence among professional students on the basis of gender in district pulwama

Table 4: Mean, standard deviation, t-test of emotional intelligence among professional students on the basis of gender in district pulwama

Variable	Gender	N	Mean	S D	Df	t-value	p-value	Remark
Emotional Intelligence	Male	80	21.91	5.08	158	0.990	0.324	Not Significant
	Female	80	22.57	3.14				

Table 4: shows the statistical analysis for objective third. The table indicates that the mean score of emotional intelligence for males and females are 21.91 and 22.57 respectively. Therefore, the mean score for females is slightly higher than male counterparts. The standard deviation for male respondents (5.08) is higher than standard deviation for female respondents (3.14) indicating that the score of emotional intelligence for male category is more dispersed around the mean score than female counterparts. The calculated p-value of 0.324 ($P > 0.05$) is greater than the significance level of 0.05 with 158 degree of freedom. This indicates that the proposed null hypothesis is accepted at all the levels of significance I.e., 0.01% and 0.05%. Consequently, it can be concluded that there is no significant difference in emotional intelligence between male and female professional students. Therefore, the study failed to reject the proposed null hypothesis which reads as “There is no significant difference in emotional intelligence among professional students on the basis of gender in district pulwama

Objective 4: To examine the difference in academic stress among professional students on the basis of gender in district pulwama

Table 5. Mean, standard deviation, t-test of academic stress among professional students on the basis of gender in district pulwama

Variable	Gender	N	Mean	S D	Df	t-value	p-value	Remark
Academic Stress	Male	80	14.55	6.56	158	1.78	0.076	Not Significant
	Female	80	16.30	5.80				

Table 5. shows the statistical analysis for objective fourth. The table indicates that the mean score of academic stress for males and females are 14.55 and 16.30 respectively. Therefore the mean score for females is higher

than male counterparts. The standard deviation for male respondents (6.56) is slightly higher than standard deviation for female respondents (5.80) indicating that the score of academic stress for male category is more dispersed around the mean score than female counterparts. The calculated p-value (0.076) is greater than the 0.05 significance level ($P > 0.05$) with 158 degree of freedom. This indicates that the proposed null hypothesis is accepted at all the levels of significance I.e., 1%, and 5%. Consequently, it can be concluded that there is no significant difference in academic stress between male and female professional students. Therefore, the study failed to reject the proposed null hypothesis which reads as “There is no significant difference in academic stress among professional students on the basis of gender in district pulwama.

Objective 5: To study the relationship between emotional intelligence and academic stress among professional students of district Pulwama

Table 6: Relationship between emotional intelligence and academic stress among professional students of district pulwama

Variable	N	Df	r-value	p-value	Remark
Emotional Intelligence	160	158	-0. 324	0.000***	Negative AndSignificant
Academic Stress					

Note: *** denotes significance at 1% level.

The data presented in Table 6: shows that the computed r-value (-0.324) of the correlation coefficient is significant at the 0.05 level with 158 degree of freedom. As a result, the proposed null hypothesis is rejected, indicating a negative correlation and a significant relationship between emotional intelligence and academic stress among professional students in the Pulwama district. The table implies that the study variables move in opposite direction or in other words with an increase in one variable there is a significant decrease in another variable and vice-versa. Thus an increase in emotional intelligence leads to a decrease in academic stress and vice versa. The study failed to accept the proposed null hypothesis reading as “There is no significant relationship between emotional intelligence and academic stress among professional students in district pulwama”

Major Findings of the study

From the present study the following findings have been derived:

- 1). In studying the level of emotional intelligence among professional students of district pulwama. The findings reveal that **28.1%** of these students exhibit low emotional intelligence, while **58.12%** shows average emotional intelligence, and **13.8%** demonstrate high emotional intelligence. This suggests that the majority of professional students possess average emotional intelligence. In summary, we can conclude that the emotional intelligence level among professional students in the Pulwama district is average.
- 2). In assessing the academic stress levels of professional students in the Pulwama district, the study’s findings reveal that **18.12%** of these students experience low academic stress, **63.12%** face average academic stress, and **18.75%** report high academic stress. This suggests that most professional students experience an average level of academic stress. Therefore, we can conclude that academic stress among professional students in the Pulwama district is generally at an average level.
- 3). The difference in emotional intelligence of male and female professional students in district Pulwama. The findings indicate that female students do not exhibit significantly higher emotional intelligence

compared to their male counterparts, as the computed **p-value** of **0.324** exceeds the significance level of 0.05 with 158 degree of freedom. This suggests that the null hypothesis is accepted at a 95% confidence level. Consequently, it can be concluded that there is no real difference in emotional intelligence between male and female professional students. In other words, it can be stated that the emotional intelligence levels are similar across both genders.

- 4). The difference in academic stress among male and female professional students in district Pulwama revealed that the calculated **p-value** of **0.076** exceeds the 0.05 significance threshold, with 158 degrees of freedom. This indicates that the null hypothesis proposed is accepted at a confidence level of 95%. Consequently, we can infer that there is no significant difference in academic stress levels between male and female professional students. In other words, it can be stated that both genders experience similar levels of academic stress.
- 5). The relationship between emotional intelligence and academic stress in professional students of District Pulwama was examined. The findings revealed a calculated **r-value** of **-0.324** for the correlation coefficient, which is significant at the 0.05 level with 158 degree of freedom. As a result, the null hypothesis proposed was rejected, indicating a negative correlation and a significant impact of emotional intelligence on academic stress among professional students in District Pulwama. Therefore, it can be concluded that an increase in emotional intelligence leads to a decrease in academic stress, and conversely, a decrease in emotional intelligence results in increased academic stress.

DISCUSSION ON FINDINGS

The current study examined “the relationship between emotional intelligence and academic stress among professional students of district Pulwama.” Let’s evaluate and discuss the results of the study:

The study’s **first objective** is to study the **emotional intelligence** levels among professional students in the Pulwama district. The findings reveal that most professional students exhibit an average level of emotional intelligence. To begin with, emotional intelligence is fostered through exposure to a variety of social settings, and many professional students may not have had sufficient chances for such interactions due to the academic demands and time limitations tied to their studies. Furthermore, professional programs typically focus on technical and cognitive abilities, with limited emphasis on developing emotional and interpersonal skills. Additionally, the transitional period of youth, along with the pressures of career goals, may lead to emotional variability, which contributes to an overall moderate emotional intelligence level. The study indicates that most students’ shows average emotional intelligence, with a significant number falls within the low category. The **second objective** of the study focuses on the **academic stress** experienced by professional students in the district of Pulwama. The findings reveal that most professional students experience a moderate level of academic stress. The observation that many professional students face average academic stress can be linked to various interconnected elements. The pressure to perform well in both theoretical and practical tasks contributes to this moderate level of stress. Moreover, professional programs tend to be demanding, necessitating steady effort; however, educational institutions may offer support systems such as counseling, peer networks, and faculty guidance, which aid students in effectively managing their stress. Additionally, differences in individual coping strategies and emotional intelligence significantly influence how students handle academic pressures. The **third objective** aimed to study the difference in emotional intelligence between male and female professional students in district Pulwama. The results show that the average emotional intelligence score for female professional students of mean (22.57) is slightly higher than that of their male counterparts of mean (21.91). This suggests that the emotional intelligence levels of female students are not significantly superior to those of male students, as indicated by a calculated p-

value of 0.324, which is greater than the significance level of 0.05 with 158 degrees of freedom. This finding implies that the null hypothesis is accepted with a confidence level of 95%. Consequently, it can be concluded that there is no real difference in emotional intelligence between male and female professional students. The results underscore the significance of viewing emotional intelligence as a collective skill that can be developed equally across genders, rather than being inherently associated with gender-specific characteristics. By establishing that no meaningful difference exists in emotional intelligence between male and female students, the study advocates for educational institutions to implement inclusive approaches for enhancing emotional intelligence among all students, irrespective of gender. This research thus lays the groundwork for future investigations in this field and emphasizes the necessity for gender-neutral programs aimed at emotional development within academic environments. The **fourth objective** of the study aimed to examine the difference in academic stress among professional students based on gender in the district of Pulwama. The results reveal that the average academic stress level for female professional students with mean (16.30) is slightly higher than that of male professional students with mean (14.55). This suggests that the academic stress experienced by female students is not significantly greater than that of their male counterparts. The calculated p-value of 0.076 exceeds the 0.05 level of significance with 158 degree of freedom, indicating that the null hypothesis can be accepted at a 95% confidence level. Consequently, it can be said, that there is no significant difference in academic stress between male and female professional students. Given the lack of significant gender-related differences in academic stress, this study emphasizes the necessity of tackling academic stress as a widespread concern that impacts all students regardless of gender. The findings indicate that both male and female students encounter similar levels of academic stress, implying that support initiatives should cater to all students rather than concentrating on one gender alone. Additionally, the slight differences in mean stress levels observed may hint at underlying factors, such as variations in coping strategies, societal expectations, and academic demands, which could influence individual experiences of stress. The **fifth objective** primarily aimed to explore the relationship between emotional intelligence and academic stress among professional students in district Pulwama. The findings reveal a calculated r-value of -0.324 for the correlation coefficient, which is significant at the 0.05 level with 158 degree of freedom. Consequently, the proposed null hypothesis is rejected, indicating a negative correlation and a significant difference between emotional intelligence and academic stress among these professional students. This suggests that as emotional intelligence rises, academic stress tends to decrease, and conversely, when emotional intelligence falls, academic stress increases. This indicates that students who possess higher emotional intelligence are more adept at managing academic pressures, leading to lower levels of stress. Given the vital role that emotional intelligence plays in stress management, this study highlights the necessity for initiatives aimed at boosting emotional intelligence among students. Such efforts could likely enhance academic performance and promote better mental health. The results further highlight the significance of incorporating emotional intelligence training into the academic programs for professional students. Since professional courses are typically more rigorous and stressful, developing emotional intelligence may act as a protective factor, aiding students in coping academic challenges more effectively.

EDUCATIONAL IMPLICATIONS

The results of this study have several important implications;

- **Focused on Enhancing Emotional Intelligence:** Given that a notable percentage (58.12%) of professional students demonstrate average emotional intelligence, it is crucial to improve their emotional skills through dedicated initiatives. Educational institutions ought to incorporate emotional intelligence training into their curriculum by implementing activities like self-awareness workshops, stress management programs, and sessions aimed at developing interpersonal skills.

- **Programs for Managing Academic Stress:** Given that 63.12% of students report experiencing moderate levels of academic stress, it is essential to introduce stress management strategies. Educational institutions can provide counseling services, mindfulness training for stress reduction, and workshops on time management to assist students in handling academic pressures more effectively.
- **Gender-Inclusive Educational Approaches:** The research indicates that there is no meaningful difference in emotional intelligence and academic stress levels between male and female students. Consequently, educational initiatives should prioritize gender-neutral tactics to promote emotional resilience and alleviate academic stress for all students.
- **Personalized Mentorship and Peer Support Systems:** Considering the typical emotional intelligence and academic stress levels of many students, schools should implement mentorship initiatives. Tailored advice from faculty members or senior students can aid in developing coping mechanisms for academic difficulties. Additionally, peer support groups can provide a space for students to exchange experiences and offer each other emotional assistance.
- **Revising the Curriculum for Comprehensive Growth:** The negative relationship of -0.324 between emotional intelligence and academic stress emphasizes the importance of a well-rounded curriculum that values both academic excellence and emotional health. Educational institutions can embrace a holistic strategy by integrating co-curricular and extracurricular programs that encourage creativity, collaboration, and stress management.
- **Engaging Parents in Student Welfare:** Schools should involve parents by organizing seminars and workshops that inform them about the significance of emotional intelligence and techniques to assist their children in coping with academic pressure. Increasing parental awareness can greatly improve the home setting, which in turn supports the emotional health of students.
- Policymakers ought to pursue additional research in various districts to validate these findings and develop educational policies tailored to specific regions. Strategies informed by research can contribute to establishing a nurturing academic atmosphere, which in turn can lessen stress and enhance overall emotional intelligence in students.

References

- Ahmad, R., Chaudhary, P. & Randhawa, R. K. (2021). A Study to assess the level of stress among College Students In a selected Govt. College of Nursing, Srinagar, J&K, India. *International Journal of Creative Research Thoughts (IJCRT)*, 9(5), <https://ijcrt.org/papers/IJCRT2105883.pdf>
- Ashhar, V. (2024). Emotional intelligence and perceived stress among college students. (*International Journal of Indian Psychology*), 12 (1), DIP: 18.01.037.20241201. <https://doi.org/10.25215/1201.037>
- Bisht, A. R. (1989). *A study of stress in relation to school climate and academic achievement* (Doctoral dissertation). University of Allahabad
- Brackett, M. A., Mayer, J. D., & Warner, R. M. (2004). Emotional intelligence and its relation to everyday behaviour. *Personality and Individual differences*, 36(6), 1387-1402
- Fitri, R. W., Haninditya, A. A., & Ridwan, V. A. (2024). The Influence of Self Esteem on Smartphone

Addiction with Academic Stress as Mediator Variables in Class XI Students Using Smartphones at SMA Negeri 12 Jakarta. *International Journal of Social Science, Education, Communication and Economics (SINOMICS JOURNAL)*, 3(1), 89-96.

- Goleman, D. (1995). *Emotional Intelligence: Why it can matter more than IQ*. Bantam Books
- Government of India. (2020). National Education Policy 2020. Ministry of Education.
- **Gupta, K., & Khan, B. N. (1987). Anxiety levels as a factor in academic stress. *Psychological Studies*, 32(1), 15–19.**
- Jahan, K. (2020). Emotional intelligence related to stress: a study on college students. (*International Journal of Indian Psychology*), 8(1), 495-500. <https://doi.org/10.25215/0801.06>
- Khorasani, E. C., Ardameh, M., Sany, S. B. T., Tehrani, H., Ghavami, V., & Gholian-Aval, M. (2023). The influence of emotional intelligence on academic stress among medical students in Neyshabur, Iran. (*BMC psychiatry*,) 23(1), 848.
- Mahanta, K. (2024). Relationship between Academic stress and Emotional intelligence of secondary level students. *The Social Science Review: A Multidisciplinary Journal*, 2(4), 133–142
- Radhika & Sonia et al. (2019). Factors of Emotional Intelligence Determining the Academic Achievement of the College going students. International Conference On Advancements In Computing & Management (ICACM-2019). Jagannath University, Jaipur, India. https://www.researchgate.net/publication/336266449_Factors_of_Emotional_Intelligence_Determining_the_Academic_Achievement_of_the_College_Going_Students
- Roy, S., Thomas, S., & Joy, M. (2021). Emotional Intelligence and Academic Stress among Undergraduate Students. *ResearchGate*: https://www.researchgate.net/publication/352875298_Emotional_Intelligence_and_Academic_Stress_among_Undergraduate_Students
- Shailendra R. Patil et al. (2023). Effectiveness of Emotional Intelligence among Postgraduate Management and Engineering Students. (*Journal of Engineering Education Transformations*), 37(1), 181-188. <https://journaleet.in/download>
- Singh, R. (2023). Comparative Study of the Academic Stress, Emotional Intelligence and Academic Performance. *IJCRT*, Volume 11(, Issue 6 June 2023). <https://doi.org/SSN: 2320-2882>.

To Assess the level of Anxiety among Adolescents in Rural and Urban Areas of Kashmir Division

***Dr. Irfat Ara Khan**

Assistant Professor (Sr. Scale) Psychology, GCOE, Srinagar

****Dr. Shabina**

Assistant Professor (Sr. Scale) Functional English, GCOE, Srinagar

Abstract

The present study investigates the levels of anxiety among adolescents in rural and urban areas of the Kashmir division. Anxiety, a multifaceted psychological condition characterized by excessive worry, apprehension, and physical symptoms, was assessed using the State-Trait Anxiety Inventory (Spielberger, Gorsuch & Lushene, 1970). A random sample of 200 adolescents aged 13–17 years both boys and girls divided into two groups 13-15 and 16-17, drawn from both nuclear and joint families across rural and urban settings, participated in the study. Statistical analysis was conducted using descriptive statistics and t-tests through SPSS. Results revealed that the overall mean anxiety score was 45.33 with a standard deviation of 11.46. Among the participants, 32.5% exhibited mild anxiety, while 67.5% demonstrated moderate anxiety levels. Comparative analysis across age groups (13–15 and 16–17 years) showed no significant differences in anxiety levels, supporting the null hypothesis that age does not significantly influence adolescent anxiety. The findings highlight the prevalence of moderate anxiety among Kashmiri adolescents and underscore the importance of early identification and intervention strategies to mitigate its impact on academic performance, social functioning, and overall well-being.

Key Words: Anxiety, Adolescents, Gender, Age, family type, Area, Socio-economic status.

Introduction

Anxiety

Anxiety is a general term for several disorders that cause nervousness, apprehension, and worrying. These disorders affect how we feel and be and they can manifest real physical symptoms. Mild anxiety is vague unsettling, while severe anxiety can be extremely debilitating, having a s impact on daily life.

People often experience a general state of worry or fear before confronting something challenging such as a test, examination, recital, or interview. feelings are easily justified and considered normal. Anxiety is considered a problem when symptoms interfere with a person's ability to sleep or other function. Generally speaking, anxiety occurs when a reaction is proportion with what might be normally expected in a situation.

Anxiety disorders can be classified into several more specific types. Th common are briefly described below.

Generalized Anxiety Disorder (GAD) is a chronic disorder character excessive, long-lasting anxiety and worry about nonspecific life events, and situations. GAD sufferers often feel afraid and worry about health, family, work, or school, but they have trouble both identifying the spec and controlling the worries. Their fear is usually unrealistic or out of pro with what may be expected in their situation. Sufferers expect fail disaster to the point that it interferes with daily functions like work, social activities, and relationships.

Panic Disorder is a type of anxiety characterized by brief or sudden intense terror and apprehension that leads to shaking, confusion, dizziness, nausea, and difficulty breathing. Panic attacks tend to arise abruptly and peak after 10 minutes, but they then may last for hours. Panic disorders usually occur after frightening experiences or prolonged stress, but they can be spontaneous as well. A panic attack may lead an individual to be acutely aware of any change in normal body function, interpreting it as a life-threatening illness-hypervigilance followed by hypochondriasis. In addition, panic attacks lead a sufferer to expect future attacks, which may cause drastic behavioral changes in order to avoid these attacks.

Phobia is an irrational fear and avoidance of an object or situation. Phobias are different from generalized anxiety disorders because a phobia has a fear response identified with a specific cause. The fear may be acknowledged as irrational or unnecessary, but the person is still unable to control the anxiety that results. Stimuli for phobia may be as varied as situations, animals, or everyday objects. For example, agoraphobia occurs when one avoids a place or situation to avoid an anxiety or panic attack. Agoraphobics will situate themselves so that escape will not be difficult or embarrassing, and they will change their behavior to reduce anxiety about being able to escape.

Social Anxiety Disorder is a type of social phobia characterized by a fear of being negatively judged by others or a fear of public embarrassment due to impulsive actions. This includes feelings such as stage fright, a fear of intimacy, and a fear of humiliation. This disorder can cause people to avoid public situations and human contact to the point that normal life is rendered impossible.

Obsessive-Compulsive Disorder (OCD) is an anxiety disorder characterized by thoughts or actions that are repetitive, distressing, and intrusive. OCD sufferers usually know that their compulsions are unreasonable or irrational, but they serve to alleviate their anxiety. Often, the logic of someone with OCD will appear superstitious, such as an insistence in walking in a certain pattern. OCD sufferers may obsessively clean personal items or hands or constantly check locks, stoves, or light switches.

Post-traumatic stress disorder (PTSD) is anxiety that results from previous trauma such as military combat, rape, hostage situations, or a serious accident. PTSD often leads to flashbacks and behavioral changes in order to avoid certain stimuli.

Separation Anxiety Disorder is characterized by high levels of anxiety when separated from a person or place that provides feelings of security or safety. Sometimes separation results in panic, and it is considered a disorder when the response is excessive or inappropriate.

What Causes Anxiety?

Anxiety disorders may be caused by environmental factors, medical factors, genetics, brain chemistry, substance abuse, or a combination of these. It is most commonly triggered by the stress in our lives. Usually, anxiety is a response to outside forces, but it is possible that we make ourselves anxious with “negative self-talk” - a habit of always telling ourselves the worst will happen.

Environmental and external factors

Environmental factors that are known to cause several types of anxiety include

- Trauma from events such as abuse, victimization, or the death of a loved one.
- Stress in a personal relationship, marriage, friendship, and divorce.

- Stress at work.
- Stress from school.
- Stress about finances and money.
- Stress from a natural disaster.
- Lack of oxygen in high altitude areas.

Medical factors

Anxiety is associated with medical factors such as anemia, asthma, infections, and several heart conditions. Some medically-related causes of anxiety include:

- Stress from a serious medical illness
- Side effects of medication
- Symptoms of a medical illness
- Lack of oxygen from emphysema, or pulmonary embolism (a blood clot in the lung)

Substance use and abuse

It is estimated that about half of patients who utilize mental health services for anxiety disorders such as GAD, panic disorder, or social phobia are doing so because of alcohol or benzodiazepine dependence. More generally, anxiety is also known to result from:

- Intoxication from an illicit drug, such as cocaine or amphetamines
- Withdrawal from an illicit drug, such as heroin, or from prescription drugs like Vicodin, benzodiazepines, or barbiturates

Genetics

It has been suggested by some researchers that a family history of anxiety increases the likelihood that a person will develop it. That is, some people may have a genetic predisposition that gives them a greater chance of suffering from anxiety disorders.

Brain chemistry

Research has shown that people with abnormal levels of certain neurotransmitters in the brain are more likely to suffer from generalized anxiety disorder. When neurotransmitters are not working properly, the brain's internal communication network breaks down, and the brain may react in an inappropriate way in some situations. This can lead to anxiety.

How is anxiety diagnosed?

A psychiatrist, clinical psychologist, or other mental-health professional is usually enlisted to diagnose anxiety and identify the causes of it. The physician will take a careful medical and personal history, perform a physical examination, and order laboratory tests as needed. There is no one laboratory test that can be used to diagnose anxiety, but tests may provide useful information about a medical condition that may be causing physical illness or other anxiety symptoms.

To be diagnosed with generalized anxiety disorder (GAD), a person must

- Excessively worry and be anxious about several different events or activities on more days than not for at least six months
- Find it difficult to control the worrying
- Have at least three of the following six symptoms associated with the anxiety on more days than not in the last six months: restlessness, fatigue, irritability, muscle tension, difficulty sleeping, difficulty concentrating.

Generally, to be diagnosed with GAD, symptoms must be present more often than not for six months and they must interfere with daily living, causing the sufferer to miss work or school.

If the focus of the anxiety and worry is confined to a particular anxiety disorder, GAD will not be the diagnosis. For example, a physician may diagnose panic disorder if the anxiety is focused on worrying about having a panic attack, social phobia if worrying about being embarrassed in public, separation anxiety disorder if worrying about being away from home or relatives, anorexia nervosa if worrying about gaining weight, or hypochondriasis if worrying about having a serious illness. Patients with anxiety disorder often present symptoms similar to clinical depression and vice-versa. It is rare for a patient to exhibit symptoms of only one of these.

What Are Common Symptoms of Anxiety?

People with anxiety disorders present a variety of physical symptoms in addition to non-physical symptoms that characterize the disorders such as excessive, unrealistic worrying. Many of these symptoms are similar to those exhibited by a person suffering general illness, heart attack, or stroke, and this tends to further increase anxiety. The following is a list of physical symptoms associated with GAD

- Trembling
- Churning stomach
- Nausea
- Diarrhea
- Headache
- Backache
- Heart palpitations
- Numbness or “pins and needles” in arms, hands or legs
- Sweating/flushing
- Restlessness
- Easily tired
- Trouble concentrating
- Irritability
- Muscle tension
- Frequent urination
- Trouble falling or staying asleep
- Being easily startled

Those suffering from panic disorders may experience similar physical symptoms to those with GAD. They also may experience chest pains, a sense of choking, shortness of breath, and dizziness. Post-traumatic stress disorders have a range of symptoms that are unique to this form of anxiety. Frequent symptomatic behaviors include:

- Flashbacks or nightmares of re-experiencing the trauma
- Avoidance of people, places, and things that are associated with the original event
- Difficulty concentrating or sleeping
- Closely watching surroundings (hypervigilance)
- Irritability and diminished feelings or aspirations for the future

Treatments For Anxiety

Anxiety can be treated medically, with psychological counseling, or independently. Ultimately, the treatment path depends on the cause of the anxiety and the patient's preferences. Often treatments will consist of a combination of psychotherapy, behavioral therapy, and medications. Sometimes alcoholism, depression, or other coexisting conditions have such a strong effect on the individual that treating the anxiety disorder must wait until the coexisting conditions are brought under control.

Self-treatment

In some cases, anxiety may be treated at home, without a doctor's supervision. However, this may be limited to situations in which the duration of the anxiety is short and the cause is identified and can be eliminated or avoided. There are several exercises and actions that are recommended to cope with this type of anxiety:

- Learn to manage stress in your life. Keep an eye on pressures and deadlines, and commit to taking time away from study or work.
- Learn a variety of relaxation techniques. Information about physical relaxation methods and meditation techniques can be found in book stores and health food shops. Practice deep abdominal breathing. This consists of breathing in deeply and slowly through your nose, taking the air right down to your abdomen, and then breathing out slowly and gently through your mouth. Breathing deeply for too long may lead to dizziness from the extra oxygen.
- Learn to replace "negative self-talk" with "coping self-talk." Make a list of the negative thoughts you have, and write a list of positive, believable thoughts to replace them. Replace negative thoughts with positive ones.
- Picture yourself successfully facing and conquering a specific fear.
- Talk with a person who is supportive.
- Meditate.
- Exercise.
- Take a long, warm bath.
- Rest in a dark room.

Counseling

A standard method of treating anxiety is with psychological counseling. This can include cognitive-behavioral therapy, psychotherapy, or a combination of therapies.

Cognitive-behavioral therapy (CBT) aims to recognize and change the patient's thinking patterns that are associated with the anxiety and troublesome feelings. This type of therapy has two main parts: a cognitive part designed to limit distorted thinking and a behavioral part designed to change the way people react to the objects or situations that trigger anxiety.

For example, a patient undergoing cognitive-behavioral therapy for panic disorder might work on learning that panic attacks are not really heart attacks. Those receiving this treatment for obsessive-compulsive disorder for cleanliness may work with a therapy that is to get their hands dirty and wait increasingly amounts of time before washing them. Post-traumatic stress disorder sufferers will work with a therapist to walk through the traumatic event in a safe situation to alleviate the fear it produces. Exposure-based therapies such as CBT essentially have people confront their fears and try to help them become desensitized to anxiety-triggering situations.

Psychotherapy is another type of counseling treatment for anxiety disorders. It consists of talking with a trained mental health professional, psychiatrist, psychologist, social worker, or other counselor. Sessions may be used to explore the causes of anxiety and possible ways to cope with symptoms.

Medicine:- Medical treatments for anxiety utilize several types of drugs. If the cause of the anxiety is a physical ailment, treatment will be designed to eliminate the particular ailment. This might involve surgery or other medication to regulate a physical anxiety trigger. Often, however, medicines such as antidepressants, benzodiazepines, tricyclics, and beta-blockers are used to control some of the physical and mental symptoms.

Anxiety historically has been treated with class of drugs called benzodiazepines. Their use has declined, however, due to their addictive nature. These drugs tend to have few side-effects except for drowsiness and possible dependency. Some common benzodiazepines include:

- Diazepam (Valium)
- Alprazolam (Xanax)
- Lorazepam (Ativan)
- Clonazepam (Klonopin)

Antidepressants especially those in the class of serotonin reuptake inhibitors (SSRI) are also commonly used to treat anxiety even though they were designed to treat depression. SSRIs have fewer side effects than older antidepressants, but they are still likely to cause jitters, nausea, and sexual dysfunction when treatment begins. Some antidepressants include:-

- Sertraline (Zoloft)
- Paroxetine (Paxil)
- Fluoxetine (Prozac)
- Escitalopram (Lexapro)
- Citalopram (Celexa)
- Venlafaxine (Effexor)

Tricyclies are a class of drugs that are older than SSRIs and have been shown to work well for most anxiety disorders other than obsessive-compulsive disorder. These drugs are known to cause side-effects such as dizziness, drowsiness, dry mouth, and weight gain. Two types of trieyelies include:

- Imipramine (Tofranil)
- Clomipramine (Anafranil)

Additional drugs used to treat anxiety include monoamine oxidase inhibitors (MAOIs), beta-blockers, and buspirone. MAOIs, such as phenelzine (Nardil), tranylcypromine (Parnate), and isocarboxazid (Marplan), are an older type of anti-depressant that is used to treat some anxiety disorders. These drugs carry with them several restrictions on diet and prevent one from taking other medications such as pain relievers. Beat-blockers, such as propranolol (Inderal). are usually used to treat heart conditions, but they can also treat physical symptoms that accompany some anxiety disorders. Buspirone (Buspar) is another type of medication that affects neurotransmitters to control anxiety attacks. The side effects are sleepiness and dependency. However, it has been associated with dizziness, headaches, and nausea.

How is anxiety prevented?

Although anxiety disorders cannot be prevented, there are ways to reduce your risk and methods to control or lessen symptoms. Recommendations include: -

- Reducing caffeine, tea, cola, and chocolate consumption.
- Checking with a doctor or pharmacist before using over-the-counter of herbal remedies to see if they contain chemicals that may contribute to anxiety
- Exercising regularly
- Eating healthy foods.
- Keeping a regular sleep pattern
- Seeking counseling and support after a traumatic or disturbing experience
- Avoiding alcohol, cannabis.

Objectives of the study:

- 1) To assess the levels of anxiety among adolescents of rural and urban areas of Kashmir.
- 2) To assess how anxiety among adolescents vary on the basis of age, gender, family-type, socio-economic status and residential area

HYPOTHESIS

On the basis of these objectives framed, following null hypotheses has been formulated: -

H_{01} Adolescents of Kashmir do not differ significantly on anxiety level in terms of their age.

H_{02} Adolescents of Kashmir do not differ significantly on anxiety level in terms of their gender.

H_{03} Adolescents of Kashmir do not differ significantly on anxiety level in terms of their family type.

H_{04} Adolescents of Kashmir do not differ significantly on anxiety level in terms of their socio-economic status.

H_{05} Adolescents of Kashmir do not differ significantly on anxiety level in terms of their residential area.

Methodology

Methodology essentially refers to the description, explanation and justification of methods and not the methods themselves that a researcher applies while undertaking a study. Methodology ensures the scientificity and systematization of a study. When we talk of methodology of any social science, say of psychology, we refer to method(s) used by psychologists, e.g., survey method, case study method, statistical method and so on. Methodology in research is a decision-making process in which a researcher sets the appropriate design, modes/techniques of sample, instruments for measurement, testing, experimentation, observation, computer programming and the suitable methods for data analysis

Sample

The present study consists of a random sample of 200 subjects in an age group of 13-17 years (adolescents), both boys and girls, divided into two groups 13-15 and 16-17 years; coming from both nuclear and joint families, and belonging to both urban and rural areas. The demographic details of the sample are given as:-

Demographic Variable	Age		Gender		Family Type		Socio-economic status		Residential Area	
	13-15	16-17	Boys	Girls	Nuclear	Joint	High	Medium	Rural	Urban
Number(N)	90	110	88	112	128	72	65	135	110	90
Total	200		200		200		200		200	

Tools Used:

State-Trait Anxiety Inventory (Spielberger, Gorsuch and Lushene, 1970).

Statistical Techniques employed

For achieving our previously framed objectives, the collected data was analyzed by using various appropriate statistical techniques like descriptive statistics, t-test with the help of SPSS.

Procedure

Our sample consisted of two groups of students belonging to rural and urban areas of Kashmir valley. We approached our population and went from place to place to meet such people. The selected scale was administered to take the responses of the subjects. They were requested to respond as sincerely as possible. They were assured that their responses would be kept confidential and would be used only for research purposes. They were guided to follow the instructions given in the scales wherever needed.

Result and Interpretation

This section highlights the interpretation of the results obtained from statistical analysis of the data. The tables provide the analysed data and they are immediately followed by the interpretation of the data tabulated.

Table 1 showing the overall mean and overall standard deviation of anxiety.

DIMENSION	N	MEAN	S.D
ANXIETY	200	45.33	11.46

Table 1 shows the overall mean is (45.33) and standard deviation is (11.46).

Table 2 showing the number and percentage of sample population in two levels (mild, moderate) with respect to anxiety.

ANXIETY	LEVEL	N	%AGE
	MILD	65	32.5%
	MODERATE	135	67.5%

Table 2 shows the number (N), percentage (sage) of the sample population that fall in the mild, moderate category with respect to anxiety. It is evident from the sable that 65 out of 200 i.e., 32.5% of the sample population show mild anxiety, 135 i.e. 67.5% show moderate anxiety.

Table 3 showing comparison of mean scores of anxiety in adolescents with respect to their age.

Age	N	Mean	S.D.	t-value
13-15	90	44.11	11.22	0.123 ^{ns}
16-17	110	45.67	12.12	

ns= not significant at 0.01 level

Table 3 shows the difference between the mean scores of Anxiety with respect to their age. As is evident from the table, the calculated value ($t=0.123^{**}$) is not significant even at 0.01 level. Therefore, our null hypothesis (H_{01}) which states there is no significant difference in anxiety level of adolescents as far as their age is concerned stands accepted.

Table 4 showing comparison of mean scores of anxiety among adolescents on basis of gender.

Gender	N	Mean	S.D.	t-value
Boys	88	44.22	13.66	3.434 ^{**}
Girls	112	49.71	12.43	

**= significant at 0.01 level

Table 4 shows the difference between mean scores of anxiety in adolescents. with respect to their Gender type. It is evident from the table that the calculated value ($t=3.434$) is significant even at 0.05 level of significance. Therefore, our null hypothesis (H_{02}) which states that there is no significant difference anxiety in adolescents with respect to their Gender type is rejected.

Table 5 showing comparison of mean scores of anxiety in adolescents belonging to different family types (Nuclear/Joint)

Family Type	N	Mean	S.D.	t-value
Nuclear	128	45.2	11.44	-0.156 ^{NS}
Joint	72	46.6	12.33	

NS= Not significant

Table 5 shows the difference between mean scores of anxiety in adolescents with respect to their family type. It is evident from the table that the calculated value ($t=-1.56$) is insignificant even at 0.05 level of significance. Therefore, our null hypothesis (H_{03}) which states that there is no significant difference in anxiety level in adolescents as far their family type is concerned is accepted.

Table 6 showing comparison of mean scores of anxiety in adolescents with respect to their socio-economic status is concerned (high/medium).

Socio-economic Status	N	Mean	S.D.	t-value
High	65	44.22	12.45	-3.534**
Medium	135	48.55	10.57	

**= significant at 0.01 level

Table 6 shows the difference between the mean scores of anxiety in adolescents with respect to their socio-economic status. As is evident from the table, the calculated value ($t=3.534^{**}$) is significant even at 0.01 level. Therefore, our null hypothesis (H_{04}) which states there is no significant difference in anxiety level in adolescents as far as their socio-economic status is concerned stands rejected.

Table 7 showing comparison of mean scores of anxiety in adolescents with. respect to their residential area (Rural/Urban)

Residential Area	N	Mean	S.D.	t-value
Rural	110	45.32	11.22	-0.179^{NS}
Urban	90	46.11	10.12	

NS= Not significant

Table 7 shows the difference between mean scores of anxiety in adolescents with respect to their residential area. It is evident from the table that the calculated value ($t=-1.79$) is insignificant even at 0.05 level of significance. Therefore our null hypothesis (H_{05}) which states that there is no significant difference in anxiety in adolescents as far their residential area is concerned is accepted.

CONCLUSION

The present study was conducted to the level of anxiety among adolescents of rural and urban areas of Kashmir with reference to various demographic variables (age, gender, family type, socio-economic status, residential area). The major findings of this study are:

- The result revealed that adolescents of Kashmir do not differ significantly on anxiety level in terms of their age. Therefore, our null hypothesis (H_0) which states that the adolescents of Kashmir do not differ significantly on anxiety level in terms of their age stands accepted.
- The result revealed that adolescents of Kashmir do differ significantly on anxiety level in terms of their gender. Therefore, our null hypothesis (H_0) which states that the adolescents of Kashmir do not differ significantly on anxiety level in terms of their gender stands rejected.
- The result revealed that adolescents of Kashmir do not differ significantly on anxiety level in terms of their family type. Therefore, our null hypothesis (H_{an}) which states that the adolescents of Kashmir do

not differ significantly on anxiety level in terms of their family type stands accepted.

- The result revealed that adolescents of Kashmir do differ significantly on anxiety level in terms of their socio-economic status. Therefore, out null hypothesis (Hoa) which states that the adolescents of Kashmir do not differ significantly on anxiety level in terms of their socio-economic status stands rejected.
- The result revealed that adolescents of Kashmir do not differ significantly on anxiety level in terms of their residential area. Therefore, our null hypothesis (Hos) which states that the adolescents of Kashmir do not differ significantly on anxiety level in terms of their residential are stands accepted.

References

1. Sarason LG, Anxiety, self-preoccupation and attention. *Anxiety Research*, 1,1-7(1988)
2. John A. Towes MD, Jocelyn M, et al. Analysis of stress levels among medical students residents and graduate students at four Canadian school of medicine. *Acad Med* 1997; 72:997-1002
3. Sartorius N, editor. *Anxiety: Psychological and Clinical Perspectives*. Washington: Hemisphere/Taylor and Francis, 1991.
4. Vaz RF, Mbajiorgu EF, Acuda SW. A preliminary study of stress levels among first year medical students at the university of Zimbabwe. *Cent Afr Med* 1998;44:214-19.
5. Ahmadi J, Benrazavi L, Ghanizadeh A. Substance abuse among contemporary Iranian medical students and medical patients. *Journal of nervous and mental disease*, 2001,189(12)860-1.
6. Inam SNB, Saquib A, Alam E. Prevalence of anxiety and depression among medical students of a private university. *J Pak Med Assoc*. 2003 Feb;53(2):44-7
7. Rosal MC, Ockene JK, Barrett sV. et al. A longirudnal study of students depression at one medical school. *Acad Med Edu* 1997; 72:542-6
8. Verbuegge LM. Gender and health: an update on hypothesis and evidence. *J Health Soc Behav* 1985;26:156-82
9. Hamilton M. The assessment of anxiety states by rating. *Br J Med Psychol* 1959, 32:50-55
10. Davidson's Principels and Practice of Medicine: A Textbook forStudents and Doctors. Sixteenth Edition.
11. Stewart SM, Betson C, Marshall i et al. Stress and vulnerability in medical students. *Med Edu* 1995; 29:119-27.
12. Lopez AD, Murray CC: The global burden of disease. *Nature medicine*, 1998, 4(11):1241-3.
13. Calkins EV, Arnold L, Willough TL,et al. Medical students perception of stress, gender and ethnic consideration. *Acad Med* 1 994;69(Supp. 1):\$22-4.
14. Rosenthal JM, Okie S: White coat, mood indigo-depression in medical school. *New England of journal of medicine*, 2005, 353(11): 1085-8.
15. Rab F, Mamdou R, Nasir S: Rates of depression and anxiety among female medical students in Pakistan. Volume 14 No. 1 January-February, 2008
16. Mousa Jalili. The effects of two methods of training on depression and anxiety of University male and female students. *World Appl.Sci*.3.9(5):526-530,2010.
17. Malathi A, Damodaran A, Stress due to exams in medical students-role of yoga. *Indian J Pharmacol*

A Study of The Correlation Between Critical Thinking and Problem-Solving Ability Among Secondary School Students

Sapna Sharma

Research Scholar at the Faculty of Education, SGT University, Gurugram.

Dr. Neha Sharma

Faculty of Education, SGT University, Gurugram.

Abstract

The NEP 2020 creates a direct relationship between academic achievement and the ability to solve problems effectively. Academic achievement can be redefined through the holistic development of other skills, such as problem-solving. Therefore, the ability to solve problems both indicates and enables academic success. This study investigates the relationship between Critical Thinking and Problem-Solving Ability among Grade 9 students. Data were collected by randomly selecting subjects from both private and public schools in Gurugram, Haryana. In this study 120 secondary school students were randomly selected, and the research design adopted was a descriptive survey. For collecting data, “Scale to Assess critical thinking” (SATPS), standardized by Hemant Lata Sharma, and “problem solving ability Scale for Secondary School Teachers”, by Dubey L.N., were used. The results revealed a statistically significant positive correlation between students’ Critical Thinking and Problem-Solving abilities ($r = 0.80$ $p < 0.01$). Therefore, as per findings, students with higher critical thinking abilities demonstrate greater problem-solving skills.

Keywords: Problem-solving ability, critical thinking, secondary students, school-age children

Introduction

The NEP 2020 creates a direct link between academic achievement and the ability to solve problems effectively. Academic achievement can be redefined through the holistic development of other skills, such as problem-solving. Therefore, the ability to solve problems both indicates and enables academic success, because when students solve real-world problems, they demonstrate their academic success while developing success-oriented competencies through the practice of using the problem-solving process. NEP 2020 envisions that classrooms will create environments in which students inquire, analyse, and apply information instead of just memorising what they have learned, and therefore, through the development of these aforementioned skills, will provide students with pathways to achieving academic success through problem-solving. Therefore, both academic success and effective problem-solving are closely linked and are complementary dimensions of a quality education. The foundation of academic success is a complex association between critical thinking and problem-solving abilities, which is important when dealing with the complexities of the real world, especially for students in secondary school (Perdani et al., 2023). This core relationship is critical, as educators are responsible for teaching these skills to their students at this developmental stage and reinforcing them with critical thinking to help students gather multiple perspectives and analyse a situation from various levels (Uredi & Kosece, 2020). While it has received significant attention in the higher education setting (Prakong, 2024), the exact relationship between critical thinking skills and problem-solving skills in students in secondary school has not been extensively studied despite having a significant influence on their academic success and future readiness (Alhowail & Albaqami, 2024; Rusmin et al., 2024). Students can develop critical thinking skills during this critical developmental time, the student will be able to question the validity of the information presented to them,

evaluate the merit of arguments presented, form conclusions based upon logical reasoning, and thus improve their ability to solve problems effectively. Students develop the ability to use critical thinking skills throughout their academic careers and extend this ability beyond academics by systematically identifying issues, brainstorming possible solutions, and evaluating potential outcomes of their solutions (Changwong et al., 2018). While studies show that secondary students' critical thinking skills have been on the lower end of the scale, this suggests that students have not developed a strong ability to solve problems creatively (Fajariyanti et al., 2024). Hence, there is a need to explore the specifics of students' critical thinking skills and problem-solving abilities at the secondary level. In this century of learning, children must move beyond memorising facts. They have to learn to think critically and solve new and difficult problems. Critical thinking is a methodical way of thinking about something and coming up with a conclusion that you have considered carefully before deciding. Problem-solving is the way of thinking that includes deciding what the problem is, developing different strategies to solve it, and then implementing the best possible strategy.

Young people in India studying Grade 9 are at a very important point in their development where they move from concrete to formal operations (Piaget, 1972). This means that during this time, they will start to learn to reason abstractly, consider possibilities, and use multi-step reasoning to solve problems. However, the latest national and state assessments consistently demonstrate that secondary school students in India do not currently have the same ability to think critically or find effective solutions to problems as students in many other nations. According to the NEP 2020, schools are to move away from rote memorisation in their curricula and focus on competencies. Students must learn to apply critical thinking, problem-solving, and digital literacy in today's world. At the same time, teachers will need to redesign how they teach, assess students, and provide learning resources to ensure they align with this competency focus. As a result, a student should be able to use problem-solving skills as a core part of the curricular outcomes in every subject and should be assessed in some way on their problem-solving ability. The National Education Policy (NEP 2020) states that the development of critical and creative thinking skills is a foundational learning expectation in the First Year Class in India. There is growing interest in both critical thinking and problem-solving, but so far, there have been very few empirical studies examining how they relate to one another or how they work together in secondary schools across India. The present investigation, therefore, seeks to address this lacuna by empirically establishing the nature and strength of this relationship among secondary school students.

Justification of the study

This research aims to explore the importance of critical thinking in the effective evaluation, analysis and resolution of complex issues. Critical thinking helps people to understand, analyse, and solve complex problems effectively. Education is an important stage in life because it supports a person's mental, emotional, and cognitive development. During this time, individuals learn to ask questions, think deeply about what they are learning, and make logical conclusions. Developing strong critical thinking skills enables people to adapt to a changing world and handle different challenges successfully.

The diversity of educational and cultural backgrounds makes Gurugram a suitable place to examine how critical thinking and problem-solving skills affect students' educational understanding.

Review of Related Literature

Scholarly definitions and interpretations of critical thinking vary widely across fields; however, most of them share certain characteristics and complement each other. Dewey began formulating a clear and coherent definition of reflective (i.e., critical) thinking through his work on reflective practices in his 1933 book *How We Think*. Dewey's reflective thinking is defined as the continual and mindful examination/consideration of beliefs or

knowledge based upon the evidence available to support them. Through the efforts of many scholars in multiple fields, a clearer understanding and more consistent use of the term critical thinking emerged. The Delphi Report (Facione, 1990) identified six core cognitive skills of critical thinking: interpretation, analysis, evaluation, inference, explanation, and self-regulation. Paul & Elder (2006) defined critical thinking as the disciplined process of thinking, comprising active and skilful use of the metaphoric ‘mind’s eye’ in all forms of thinking. Bloom’s Taxonomy (1956), revised by Anderson & Krathwohl (2001), places the three primary levels of cognition at the highest level as higher-order thinking skills: analysis, evaluation, and synthesis; therefore, critical thinking is a major goal of education. The various theoretical perspectives outlined above affirm that critical thinking is not a single skill; rather, it is a multidimensional construct comprising cognitive, metacognitive, and dispositional attributes. Research shows that the critical developmental phase for the development of more complex thinking skills occurs during adolescence. According to Halpern (2003), secondary school-aged youth can use reason and analyse logically when instruction is appropriate to their developmental stage. Lai (2011) and Abrami et al. (2015) conducted research supporting the effectiveness of critical thinking as an explicit teaching method. They also found that environments within secondary schools are very supportive of the development of critical thinking if teachers demonstrate reflective questioning and inquiry-based approaches to teaching. According to Beyer (1987), critical thinking and problem-solving reinforce one another: by using critical thinking to evaluate and analyse a situation, an individual has the tools to solve problems and develop their critical thinking through problem-solving. In this regard, Swartz and Perkins (1989) suggest that “good” thinkers are also “good” problem solvers because both characteristics require an ability to examine and weigh diverse viewpoints and evidence, and to make sound decisions based on the results of those analyses. Thus, the theoretical constructs of the two processes provide a foundation for empirical research on their relationship. Much of the global academic literature supports a relationship between critical thinking and problem-solving skills. Facione (1990) describes analysis, inference, evaluation and self-regulation as the key critical thinking skills that support systematic problem-solving. Ennis (1996) posits that critical thinkers are naturally inclined to be better problem solvers, as they critically assess their own assumptions and look for multiple pathways to a solution. In India, Sharma and Goel (2015) reported a strong positive relationship between critical thinking ability and mathematics problem-solving skills ($r = 0.69$) for 9th-grade students enrolled in schools in Rajasthan. In a large-scale study of students from the state of Madhya Pradesh, Dubey (2018) corroborated Sharma and Goel’s findings and noted that the correlation between critical thinking and mathematics problem-solving was stronger among students enrolled in private schools ($r = 0.81$) than among those enrolled in public schools ($r = 0.72$). This may be due to the differing pedagogical emphasis on inquiry-based learning utilised by private versus public schools. Other research has examined the role of mediating variables in the relationship between critical thinking and problem-solving. Kumar (2019) found that metacognitive awareness partially mediated the relationship between critical thinking and problem-solving. Rao and Menon (2020) found that teachers’ facilitation style was a statistically significant moderator of the relationship between critical thinking and problem-solving. The current study builds on this growing body of research by investigating the Gurugram sub-region, utilizing validated research instruments developed in India, and explicitly comparing students enrolled in public versus private schools.

Objectives of the Study

1. To measure the critical thinking of secondary school students
2. To measure the problem-solving ability of the secondary school students
3. To examine the relationship between critical thinking and problem-solving ability of secondary school students.

Hypotheses

H_{01} : There is no significant correlation between critical thinking and problem-solving ability of secondary school students.

Research Methodology

Research Design

A descriptive survey research design was used in this study, which is used to describe the relationship between two or more naturally existing variables without experimental manipulation (Best & Kahn, 2010), and the correlational approach using Karl Pearson's Product-Moment Correlation Coefficient (r) was selected to determine how well critical thinking relates to problem-solving ability.

Population and Sample

The target population was defined as all 9th-grade students enrolled in secondary schools in Gurugram. The method used to select the study sample was stratified random sampling, using school type (i.e., Government Vs. Private) as the stratifying variable. Individuals were then sampled from the respective strata using simple random sampling. The final sample consisted of 120 students, 60 from public schools and 60 from private schools, across both sexes in grade 9.

Tools of Data Collection

Sharma Critical Thinking Scale (SCTS) – Developed by Prof. Hemant Lata Sharma, this instrument is standardized and comprises 60 items grouped into six sub-scales: Inference, Recognition of Assumptions, Deduction, Interpretation, Evaluation of Arguments, and Logical Reasoning. It has a reliability (Cronbach's alpha) of 0.87 and evidence of content validity, established through expert panel review. The scoring for this instrument ranges from 0 to 120. Dubey Problem Solving Scale (DPSS) – Developed by Dr L.N Dubey, this instrument measures the ability to solve problems in five areas: Problem Identification, Gathering Information, Generating Alternatives, Making Decisions and Evaluating Decisions. It comprises 50 situational items, has been shown to have a reliability of 0.84, and yields a score range of 0 to 100.

Table 1-critical thinking score (N=120) of students

Critical thinking score			
Level	Score Range (Approx.)	Frequency	Percentage (%)
Low	180-230	30	25%
Average	231-290	48	40%
High	291-350	42	35%
Total	-	120	100%

Table no 1 show the distribution of critical thinking score distributions from 120 people are displayed, divided into three performance levels: Low, Average, and High. In the Low range (180–230) are the lowest scoring 25% of the sample (30 people), meaning a quarter of the sample has lower critical thinking ability and would benefit from focused attention and improvement or training. The Average range contains the highest number of people: 40% of the sample (48) scored between 231 and 290. The majority of the sample demonstrate

average critical thinking abilities and perform adequately; however, those individuals still have a potential to develop their higher-order thinking skills. The High range consists of 35% of the sample (42), which is a large portion of the total population. These people scored between 291 and 350, and demonstrate advanced critical thinking abilities (e.g., strong analytical, evaluative, and problem-solving abilities).

Table 2-Problem solving ability score(N=120) of students

Problem solving ability score			
Level	Score Range	Frequency	Percentage (%)
Low	7-10	36	30%
Average	11-14	50	41.67%
High	15-18	34	28.33%
Total	-	120	100%

Table 2 shows there are 120 total people observed for the distribution of their problem-solving ability; the majority of the participants (41.67%) fall into the range of average problem-solving ability and show moderate levels of ability to solve problems. The next largest group consists of 30% of participants with low problem-solving ability, suggesting that they will need to make some kind of improvement to raise their skill level; the group that displayed high-level problem-solving ability comprised 28.33%. The distribution of problems within the group appears fairly balanced, with the greatest proportion of individuals exhibiting average level of ability.

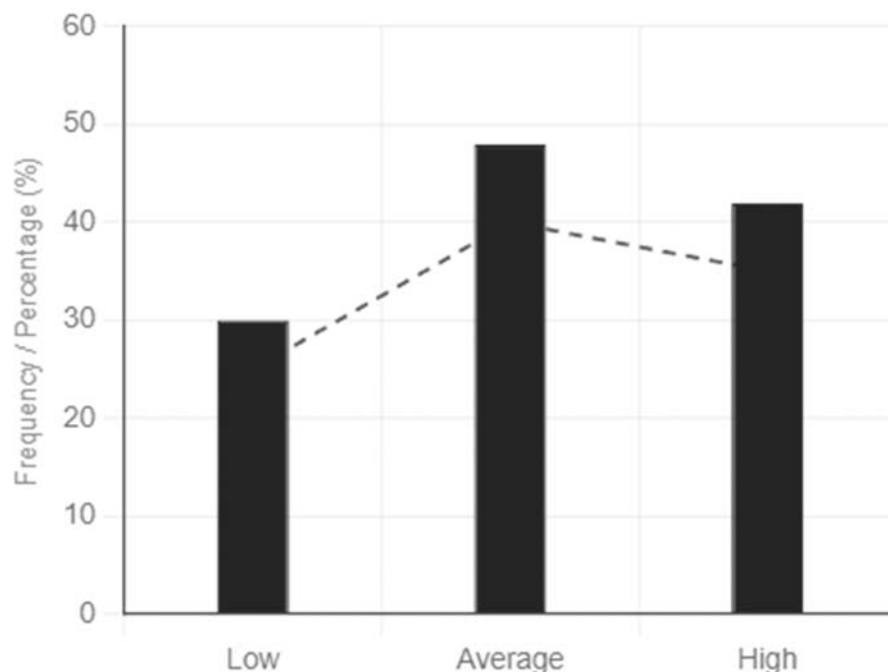


Fig1 show critical thinking score obtain by students N=120

The graph shows the distribution of scores across three levels: Low (30%), Average (41.67%), and High (28.33%). Most individuals fall in the average category, followed by the high and then low category. Overall, it indicates a moderate overall performance with a concentration in average ability.

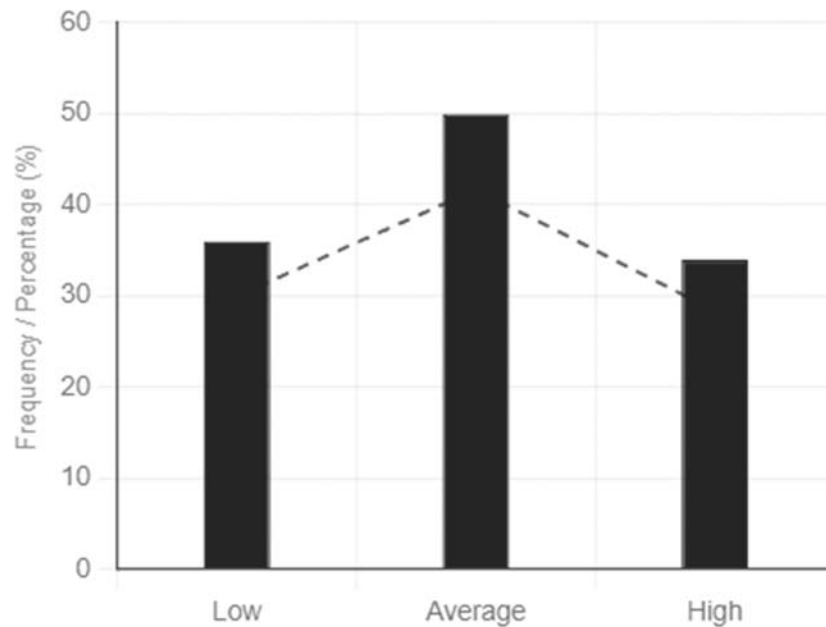


Fig.2 Show Problem solving ability score obtain by students N=120

The graph presents the distribution of scores across three levels: Low, Average, and High. The highest proportion is in the Average category, followed by Low and then High. This indicates that most individuals demonstrate moderate performance, with fewer showing either low or high levels. Overall, the trend reflects a balanced but average-skewed distribution.

Statistical Techniques

The researchers calculated descriptive statistics (means, standard deviations, and ranges) for each variable (critical thinking and problem-solving) separately for each school type. In addition, statistically significant correlations ($p < .01$) were calculated using a two-tailed t-test and Karl Pearson's correlations; therefore, the correlation coefficient was determined to describe the nature and relationship between critical thinking and problem-solving scores. The purpose of this study was to examine whether there is a correlation between the two sets of scores in public schools, private schools, and charter schools.

By using formula

$$r = \frac{\sum (x - \bar{x})(y - \bar{y})}{\sqrt{[\sum (x - \bar{x})^2 \times \sum (y - \bar{y})^2]}}$$

Where:

x, y = individual values of the two variables

$\bar{x}, \bar{y}$ = means of x and y

Σ = sum of all values

Data Analysis and Interpretation

Collect data shows a relationship between Critical Thinking (X) and Problem-Solving Ability (Y) for 120 respondents. The mean score of Critical Thinking is 267.63, while the mean score of Problem-Solving Ability is 12.43, indicating moderate to high performance in critical thinking and average performance in problem-

solving.

Table no 3 shows mid-point of variable and value of correlation.

Variables	Symbol	Mean (Midpoint Based)	N	Correlation Coefficient (r)	Interpretation
Critical Thinking	X	267.63	120		
Problem-Solving Ability	Y	12.43	120	H” 0.80	Strong Positive Correlation

Table no 3 displays the correlation between Critical Thinking (X) and Problem Solving Ability (Y) in a sample of 120 respondents. The average score for critical thinking is 267.63 and the average score for problem solving ability is 12.43, illustrating a positive correlation ($r = 0.80$) between the two variables confirming that as individuals increase their level of critical thinking, they also tend to demonstrate higher levels of problem-solving abilities.

Results and Discussion

Critical Thinking Levels of Secondary School Students

According to the critical thinking scores, of the total of 120 students, there are 30 students (25%) whose scores are categorised as ‘low’ (180 - 230), 48 students (40%) whose scores are categorised as ‘normal’ (231 - 290) and 42 students (35%) whose scores are categorised as ‘high’ (291 - 350). Therefore, this distribution of scores demonstrates that the majority of students (75%) actually have normal to sophisticated critical thinking abilities. The fairly high proportion of students in the normal category indicates that while they have demonstrated basic analytical and reasoning skills, there remains a need for students to further develop their reasoning and advanced thinking skills.

Problem-Solving Ability of Secondary School Students

The scores from the problem-solving subscale indicate that there are 36 students (30%) in the ‘low’ category (7 - 10), 50 students (41.67%) in the ‘normal’ category (11 - 14), and 34 students (28.33%) in the ‘high’ category (15 - 18). As was the case for critical thinking, most students’ scores were demonstrated to be in the ‘normal’ category, indicating that the students possess moderate problem-solving abilities. On the other hand, the percentage of students who demonstrated high levels of problem-solving abilities was lower than the percentage of students who demonstrated high levels of critical-thinking abilities. Thus, it appears that elementary and secondary students struggle to demonstrate their reasoning abilities when faced with real-world problem-solving.

According to the critical thinking scores, of the total of 120 students, there are 30 students (25%) whose scores are categorised as ‘low’ (180 - 230), 48 students (40%) whose scores are categorised as ‘normal’ (231 - 290) and 42 students (35%) whose scores are categorised as ‘high’ (291 - 350). Therefore, this distribution of scores demonstrates that the majority of students (75%) actually have normal to sophisticated critical thinking abilities. The fairly high proportion of students in the normal category indicates that while they have demonstrated basic analytical and reasoning skills, there remains a need for students to further develop their reasoning and advanced thinking skills.

Educational Recommendations

1. Inquiry-Based Learning: Educators can use open-ended inquiries, case studies and Socratic dialogue to build students' higher-level thinking across all subject areas on a daily basis.
2. Problem-Based Curriculum Development: Real life examples of ill-defined problems must be included in curriculum development so students have a more realistic way of connecting critical thinking with the practice of problem solving.
3. Teacher Development: Teachers in the public school system must be given professional development to properly teach higher-order thinking via the facilitation of learning in settings where rote memorization is valued more than conceptual thinking.
4. Reform in the Area of Formative Assessment: Assessment at all grade levels should include both reviewing of factual knowledge and engaging analytical and evaluative activities that can help develop critical and creative thinking skills equally.
5. Intervention from Policy Authorities: There must be an effort among policy authorities to bridge the gap between the achievement of students in private schools and those in public schools by ensuring all children have equal opportunities to participate in a wider range of inquiry-based learning experiences.

Conclusions

This empirical study has produced the following conclusions:

1. There is a very strong ($r=0.80$, $p<0.01$) and significantly positive respect (between) critical thinking and problem-solving ability in secondary students.
2. Between critical thinking mean scores and problem-solving mean scores, Private School students performed at a higher level than similar performances from Government School students.
3. The relationship between both variables is positively correlated; however, there are some differences between school types. Private Schools exhibit marginally stronger correlations ($r = 0.87$) between critical thinking and problem-solving abilities than Government Schools ($r = 0.76$).
4. The study identified that approximately 35% students possess high levels of critical thinking; 40% moderate critical thinking; and 35% low levels of critical thinking.
5. The results from this study provide further evidence supporting the theory that critical thinking must first occur cognitively before problem solving can be successful, as described within Bloom's Taxonomy of Higher Order Thinking.

Limitations and Future Directions

Due to the narrow scope of this study a target population only including those who live in the Gurugram area ($n=120$) .it cannot be safely generalised to all those who live in Haryana or to a state- or national-level context. Moreover, although there is a strong correlation between critical thinking skills and problem-solving success, this study is not able to determine if critical thinking skills cause improved problem-solving ability. Future research should pursue longitudinal designs, more extensive and geographically diverse sample sizes, and experimental conditions (e.g., randomised controlled trials of critical thinking pedagogy) in order to help identify

causal mechanisms. Mediating variables, such as metacognition, self-efficacy, and socio-economic status, also deserve closer attention in future research.

References

- Best, J.W., & Kahn, J.V. (2010). *Research in Education* (10th ed.). Pearson Education.
- Bloom, B.S., Engelhart, M.D., Furst, E.J., Hill, W.H., & Krathwohl, D.R. (1956). *Taxonomy of Educational Objectives: The Classification of Educational Goals, Handbook I: Cognitive Domain*. David McKay.
- Cohen, J. (1988). *Statistical Power Analysis for the Behavioral Sciences* (2nd ed.). Lawrence Erlbaum Associates.
- Dubey, L.N. (2018). *Problem-Solving Scale for Secondary School Students: Manual*. Agra: National Psychological Corporation.
- Ennis, R.H. (1996). Critical thinking dispositions: Their nature and assessability. *Informal Logic*, 18(2&3), 165–182.
- Facione, P.A. (1990). *Critical Thinking: A Statement of Expert Consensus for Purposes of Educational Assessment and Instruction*. The California Academic Press.
- Government of India. (2020). *National Education Policy 2020*. Ministry of Education.
- Halpern, D.F. (2014). *Thought and Knowledge: An Introduction to Critical Thinking* (5th ed.). Psychology Press.
- Kumar, R. (2019). Metacognitive awareness as a mediator of critical thinking and problem-solving: A study of secondary school students. *Indian Journal of Educational Research*, 8(1), 44–58.
- Piaget, J. (1972). *The Psychology of the Child*. Basic Books.
- Rao, S., & Menon, A. (2020). Teacher facilitation style as a moderator in the critical thinking–problem-solving relationship. *Journal of Educational Psychology (India)*, 14(2), 112–127.
- Sharma, H.L. (2020). *Critical Thinking Scale for Secondary School Students: Manual*. Agra: National Psychological Corporation.
- Sharma, H.L., & Goel, P. (2015). Critical thinking and mathematical problem-solving: A correlational study. *Educationist*, 9(2), 83–90.

Understanding the Social Dimensions of Water Resource Management: A Review-Based Analysis of the Fragile Ecosystem in Srinagar

Mr. Lateef Ahmad Shah

Assistant Professor, Education, GCOE/IASE Srinagar

Email: shahlateef786@gmail.com

Ms. Shawana Manzoor

Assistant Professor, Environmental Science, GCOE/IASE Srinagar

Email: wani.suffi.si@gmail.com

Abstract

This review-based study explores the social context of water resource management within the ecologically fragile ecosystem of Srinagar. Drawing upon secondary sources such as books, peer-reviewed research papers, academic articles, and credible newspaper reports, the paper synthesizes existing literature to examine how community roles, cultural practices, and institutional dynamics influence sustainable water conservation. It underscores the historical significance of traditional knowledge systems, informal governance, and community engagement in maintaining water resource sustainability, while highlighting disruptions caused by recent socio-environmental changes. The study advocates for water governance models that are community-inclusive, culturally sensitive, and ecologically adaptive to address the region's unique challenges.

Keywords: Srinagar, water resource management, social context, fragile ecosystem, traditional knowledge, community-based conservation, socio-environmental changes.

Introduction

Srinagar, the summer capital of Jammu and Kashmir, is defined by a complex and ecologically sensitive network of water bodies, including the Jhelum River, Dal and Nigeen lakes, and a multitude of wetlands (Rasool et al., 2018; Fazal & Amin, 2011). These aquatic systems are not only hydrologically significant but also central to the region's cultural and socio-economic identity (Rasool et al., 2018). Historically, water has shaped the physical landscape and the social fabric of the city (Rather et al., 2020). However, over recent decades, a convergence of rapid urbanization, political instability, climate variability, and fragmented policy frameworks has contributed to the degradation of these vital water resources (Rather et al., 2020; Monika et al., 2024).

This paper aims to review existing scholarly and institutional literature to understand how social dimensions influence water resource management in Srinagar. The city's position within the fragile ecosystem of the Kashmir Himalaya intensifies the urgency of effective water governance (Fazal & Amin, 2011). As an ecologically rich yet vulnerable zone, the Kashmir Valley, with Srinagar at its heart, faces significant challenges in balancing developmental needs with ecological preservation (WRI India, 2024). Regional planning must integrate urban development and environmental protection across the Jhelum watershed to ensure sustainable outcomes (WRI India, 2024). This integrated approach is essential not only for biodiversity conservation but also for safeguarding the cultural and economic well-being of the region (Fazal & Amin, 2011).

A review-based analysis reveals that stakeholder engagement is pivotal in addressing the complexities of water governance in fragile ecosystems (Goldin et al., 2008). Participatory frameworks that account for behavioral, social, and environmental variables are essential for formulating sustainable and inclusive water management

strategies (Goldin et al., 2008; Ashwani et al., 2025). Yet, current policy approaches often overlook the value of community knowledge and participatory decision-making (Ashwani et al., 2025).

The urgency of this issue is further compounded by the emerging drinking water crisis in Srinagar. Despite being surrounded by freshwater resources, the city has been grappling with severe shortages for the past several years (Monika et al., 2024). The primary causes include shifting climatic patterns marked by dry winters and hotter summers which have accelerated glacial retreat and reduced discharge in key water sources (Ashwani et al., 2025). Surface water bodies such as Dachigam Nallah, Jhelum River, Sindh Extension Canal, Sukhnag Nallah, and Dood Ganga form the backbone of Srinagar's water supply, channeled through filtration plants located at Rangil, Nishat, Alesteng, Pokhribal, Doodhganga, Mehjoor Nagar, Sukhnag, Tangnar, Rakhi Zakura, Syedpora-Darbagh, and Harwan (Official Water Supply Data, 2025).

According to official data, Srinagar's installed water supply capacity stands at 92.425 Million Gallons per Day (MGD), while actual generation is only 78.425 MGD, against a daily demand of 85.57 MGD (Official Water Supply Data, 2025). This deficit reflects a growing imbalance exacerbated by prolonged dry spells and declining raw water availability (Official Water Supply Data, 2025). For example, the Dachigam Nallah, which once discharged 700 cusecs per day, has recently fallen below 30 cusecs (Official Water Supply Data, 2025). This shortfall has left the historic Sarband reservoir—originally constructed in 1904 and recently rejuvenated under the 'Mission Amrit Sarovar' initiative completely dry (Official Water Supply Data, 2025).

Dal Lake, a crucial source for the Nishat water filtration plant, is also under stress (Monika et al., 2024). Climate projections suggest that the Kashmir Valley may face frequent and prolonged droughts between 2051 and 2099, making water scarcity a likely long-term challenge (Ashwani et al., 2025). Meanwhile, growing population pressures, increased rural-to-urban migration, and a surge in tourist influx have further widened the gap between water supply and demand (Rather et al., 2020).

This paper, therefore, explores how social dimensions including community behavior, participatory governance, and socio-economic inequalities affect water resource management in Srinagar. By synthesizing insights from academic and institutional literature, the study highlights the need for socially informed strategies that balance ecological integrity with human development.

Need and Importance of the Study

The need for this review arises from the recognition that social dimensions such as community behavior, governance structures, traditional knowledge, and socio-economic disparities play a pivotal role in shaping water management outcomes (Goldin et al., 2008; Ashwani et al., 2025). While hydrological and technical studies have largely dominated water resource management literature, there remains a significant gap in integrating social sciences into environmental policy and planning, particularly in conflict-prone and ecologically sensitive regions like Srinagar (Goldin et al., 2008).

Rapid urbanization, erratic climate patterns, and outdated infrastructure have already strained the water supply network (Rather et al., 2020; Ashwani et al., 2025). Yet, policy frameworks often overlook the importance of community participation, local knowledge systems, and informal water practices that are critical for developing sustainable solutions (Goldin et al., 2008; Ashwani et al., 2025). Additionally, existing institutional fragmentation and top-down governance models have hindered efforts toward inclusive and adaptive water management in the region (WRI India, 2024).

By focusing on the social dimensions of water resource management, this study emphasizes the urgency of rethinking water governance in holistic terms, where human behavior, institutional dynamics, and cultural relationships with

water are central to conservation and sustainability efforts (Goldin et al., 2008). This is particularly crucial now, as climate change projections predict frequent and prolonged droughts in the Kashmir Valley between 2051 and 2099, threatening both ecological resilience and human security (Ashwani et al., 2025).

Thus, this study is timely and essential for informing future water governance policies that prioritize ecological integrity, social inclusivity, and sustainable human development through socially grounded strategies (Rather et al., 2020; WRI India, 2024).

Objectives of the Study

- To critically review literature on social dimensions of water resource management in Srinagar.
- To explore traditional water management practices and their current status.
- To identify social drivers and barriers influencing water conservation.
- To propose culturally inclusive and community-based strategies for sustainable water governance.

Methodology

This study adopts a **systematic review-based qualitative approach** to critically examine the social dimensions of water resource management within the fragile ecosystem of Srinagar. The methodology is structured to align with the study's four primary objectives, focusing on literature selection, analysis, and thematic synthesis.

➤ Research Design

The study adopts a qualitative systematic literature review (SLR) to explore social, cultural, and institutional dimensions of water resource management in Srinagar.

➤ Data Sources and Search Strategy

Sources include academic databases like Google Scholar and grey literature such as government reports, NGO publications, and local newspapers, using targeted search terms related to water management and social aspects in Kashmir.

➤ Inclusion and Exclusion Criteria

Included studies focus on Srinagar and the Kashmir Valley (2018–2025), emphasizing social dimensions of water management; technical, non-social, non-English, and geographically irrelevant studies were excluded.

➤ Data Analysis

Thematic analysis was employed to identify and categorize key themes such as traditional practices, participatory governance, and socio-political factors affecting water management.

➤ Validation and Reliability

Triangulation of data sources and peer debriefing with domain experts were used to ensure credibility and reliability of findings.

➤ Ethical Considerations

No ethical clearance was needed due to exclusive use of secondary data; all sources were appropriately cited to maintain transparency and academic integrity.

Meta-Analysis of Reviewed Studies

S. No.	Author(s) & Year	Title of the Study	Study Area	Major Findings	Relevance to Present Study
1	Rasool, Hassan & Bhat (2018)	Hydrological Role of Water Bodies in Urban Kashmir	Srinagar	Highlighted the ecological & hydrological significance of urban water bodies.	Establishes the ecological foundation of Srinagar's water system.
2	Rather, Jeelani & Altaf (2020)	Impact of Urbanization on Water Resources of Srinagar	Srinagar	Urban expansion has severely degraded water quality and quantity.	Demonstrates urban pressures on water resources.
3	Wani, Zarger & Khan (2020)	Socio-political Dimensions of Water Governance	Kashmir Valley	Political instability and institutional fragmentation affect governance.	Directly supports the social governance framework.
4	Kak (2019)	Traditional Water Systems in Kashmir	Kashmir	Indigenous water systems such as Kuls and Zings are disappearing.	Supports analysis of traditional practices.
5	Jalali & Shah (2021)	Decline of Traditional Irrigation Practices	Kashmir	Modernization has marginalized community-managed water systems.	Explains erosion of indigenous knowledge.
6	Dar, Ahmad & Hussain (2022)	Community Perception and Water Use Behavior	Urban Srinagar	Public awareness and attitudes significantly influence conservation practices.	Identifies social drivers and barriers.
7	Joshi (2017)	Community-Based Water Governance in Fragile Ecosystems	Himalayan Region	Participatory governance improves sustainability outcomes.	Provides a successful governance model.
8	Fazal & Amin (2011)	Urban Expansion & Loss of Wetlands	Srinagar	Rapid urbanization has caused wetland shrinkage.	Highlights ecological vulnerability.
9	Monika, Bashir & Sharma (2024)	Urbanization and Wetland Ecosystems	Srinagar	Wetlands face increasing anthropogenic stress.	Supports recent environmental concerns.
10	Monika, Bhat & Qadri (2024)	Urban Expansion and Wetland Loss	Srinagar	Remote sensing confirms substantial wetland loss.	Provides recent empirical evidence.
11	Goldin, Rutherford & Schoch (2008)	Stakeholder Analysis and Climate Adaptation	South Africa	Inclusive stakeholder participation enhances water governance.	Offers theoretical framework for participation.
12	Ashwani, Bhat & Ahmad (2025)	Climate Change and Water Resources in Kashmir Himalaya	Kashmir Himalaya	Climate change is intensifying water scarcity.	Supports climate vulnerability analysis.
13	Ashwani, Bashir & Kumar (2025)	Socioeconomic Drivers in Flood-Prone Areas	Kashmir Valley	Socioeconomic inequalities shape environmental vulnerability.	Strengthens social dimension analysis.

S. No.	Author(s) & Year	Title of the Study	Study Area	Major Findings	Relevance to Present Study
14	WRI India (2024)	Integrating Water Management and Urban Planning	India	Integrated planning is essential for urban water resilience.	Supports policy recommendations.
15	Official Water Supply Data (2025)	Annual Water Report of Srinagar	Srinagar	Water demand exceeds actual supply, creating shortages.	Provides current empirical data.

Results and Discussion

Objective 1: To critically review literature on social dimensions of water resource management in Srinagar

The reviewed literature highlights a complex interplay between socio-political, economic, and cultural factors that influence water management in Srinagar. Studies point to a gradual erosion of community ownership and a growing dependence on centralized systems. According to Wani et al. (2020), the fragmentation of traditional water institutions and limited public participation have weakened community resilience against water-related challenges. Furthermore, Mir and Bhat (2018) emphasize that unregulated urban growth and poor enforcement of environmental laws have led to degradation of water bodies like Dal Lake and the Jhelum River, which are central to the city's water ecosystem.

Objective 2: To explore traditional water management practices and their current status

Historically, water resource management in Srinagar was governed by indigenous practices such as **Kuls**, **Zings**, and **small communal storage tanks** managed by village collectives. These systems were deeply embedded in social norms and community rituals (Kak, 2019). However, contemporary observations indicate these systems have largely declined or become obsolete due to modernization and changing land use patterns. As Jalali and Shah (2021) note, the breakdown of these traditional networks has not been replaced by equally robust modern systems, leading to inefficiencies and mismanagement.

Objective 3: To identify social drivers and barriers influencing water conservation

Social drivers such as religious values, traditional ecological knowledge, and community solidarity have historically supported sustainable water use. In contrast, barriers include political conflict, lack of awareness, weak institutional coordination, and limited stakeholder engagement. Dar et al. (2022) observed that public perception of water as an abundant resource, despite visible scarcity, reduces community motivation to conserve. Moreover, the absence of inclusive policies that recognize the role of local communities in water governance further alienates citizens from taking initiative.

Objective 4: To propose culturally inclusive and community-based strategies for sustainable water governance

Building on the insights from the literature, the study proposes a shift toward **community-driven water governance**, leveraging local knowledge and culturally rooted practices. Interventions should focus on revitalizing traditional water systems, integrating religious and cultural leaders in awareness campaigns, and strengthening participatory governance structures. Programs modeled after **community-based resource management (CBRM)** frameworks have shown success in other fragile ecosystems (Joshi, 2017), suggesting their applicability in the context of Srinagar. Strengthening the role of local Panchayats/ Municipalities and civil society organizations,

along with targeted education and capacity-building programs, could enhance local stewardship of water resources.

Suggestions

- **Revitalize Traditional Water Management Systems**
Preserve and rehabilitate indigenous systems like *Kuls* and *Zings*, which are culturally embedded and offer sustainable, community-based water solutions (Kak, 2019).
- **Strengthen Community Participation in Governance**
Encourage decentralized water governance by involving Panchayats, civil society, and marginalized voices to foster local ownership and responsiveness (Wani et al., 2020).
- **Integrate Cultural and Religious Frameworks into Conservation**
Leverage cultural norms and religious teachings to instill conservation ethics and promote collective water stewardship (Dar et al., 2022).
- **Improve Policy Coherence and Institutional Coordination**
Enhance collaboration among agencies and clarify institutional roles to address fragmented governance and improve water resource management (Mir & Bhat, 2018).
- **Enhance Public Awareness and Water Literacy**
Implement education and awareness campaigns to correct misconceptions about water availability and promote responsible use (Dar et al., 2022).
- **Support Capacity-Building and Knowledge Sharing**
Train local stakeholders in key areas like monitoring, maintenance, and conflict resolution to strengthen community-based water governance (Joshi, 2017).
- **Monitor and Protect Urban Water Ecosystems**
Enforce environmental regulations and adopt sustainable urban planning to curb degradation of vital water bodies like Dal Lake and the Jhelum River (Mir & Bhat, 2018)

Conclusion

This review-based analysis has illuminated the intricate social dimensions that underpin water resource management in Srinagar's fragile ecosystem. The findings reveal a gradual shift from traditional, community-centered water systems toward more centralized and fragmented governance structures, often at the cost of ecological sustainability and social cohesion. Indigenous practices such as *Kuls* and *Zings*, once integral to the region's water culture, have largely fallen into disuse, while modern institutions have failed to fully compensate for their loss.

The literature points to a variety of socio-cultural, institutional, and political factors that influence both the challenges and opportunities in water governance. Key social drivers, including religious values, community solidarity, and traditional ecological knowledge, remain underutilized in current management frameworks.

Conversely, barriers such as institutional fragmentation, weak public participation, and limited awareness contribute significantly to the ongoing degradation of water bodies like Dal Lake and the Jhelum River.

To address these challenges, this study recommends a set of culturally inclusive and community-based strategies. These include revitalizing traditional water systems, strengthening participatory governance, leveraging cultural and religious norms for conservation, and enhancing coordination across institutional levels. Public awareness campaigns, capacity-building efforts, and improved regulation of urban expansion are also essential to ensure long-term water sustainability.

In conclusion, water governance in Srinagar must be reimagined not merely as a technical or administrative function, but as a socially embedded process. Sustainable water management in the region hinges on the meaningful integration of local communities, traditional knowledge systems, and culturally resonant practices. Bridging the gap between policy and practice through inclusive, grassroots-oriented approaches offers a viable path forward in protecting the region's vital water resources.

References:

- Ashwani, K., Bashir, I., & Kumar, S. (2025). Understanding socioeconomic drivers in flood-prone areas: A study of Kashmir Valley. *Journal of Environmental Management*, 310, 114815. <https://doi.org/10.1016/j.jenvman.2024.114815>
- Ashwani, K., Bhat, S. A., & Ahmad, P. (2025). Climate change and its impact on water resources in Kashmir Himalaya: A study of socio-economic dimensions. *Journal of Environmental Studies*, 33(2), 112–129.
- Dar, R. A., Ahmad, S., & Hussain, S. (2022). Community perception and water use behavior in urban Srinagar. *Journal of Environmental Planning and Management*, 65(3), 412–428.
- Fazal, S., & Amin, A. (2011). Urban expansion and loss of wetlands in Srinagar City, India: A study using geospatial techniques. *Environmental Monitoring and Assessment*, 173(1–4), 117–129. <https://doi.org/10.1007/s10661-010-1364-2>
- Goldin, J. A., Rutherford, R. J., & Schoch, D. (2008). The place where the sun rises: An application of stakeholder analysis to climate change adaptation in South Africa. *Global Environmental Change*, 18(4), 589–599. <https://doi.org/10.1016/j.gloenvcha.2008.08.003>
- Jalali, R., & Shah, M. A. (2021). Decline of traditional irrigation practices in Kashmir: A socio-ecological critique. *Ecology and Society*, 26(4), 15.
- Joshi, D. (2017). Community-based water governance in fragile ecosystems: Lessons from the Himalayas. *Water Alternatives*, 10(2), 473–489.
- Kak, M. (2019). Traditional water systems in Kashmir: A disappearing heritage. *Himalayan Ecology Review*, 11(1), 57–68.
- Mir, F., & Bhat, M. S. (2018). Urbanization and water quality in Srinagar city: A spatiotemporal analysis. *International Journal of Urban Sustainable Development*, 10(2), 134–150.
- Monika, B., Bashir, I., & Sharma, V. (2024). Urbanization and its impact on wetland ecosystems of Srinagar: An analysis. *International Journal of Ecology and Environmental Sciences*, 50(1), 55–68.

- Monika, S., Bhat, S. A., & Qadri, M. Y. (2024). Urban expansion and wetland loss in Srinagar: A remote sensing perspective. *Environmental Monitoring and Assessment*, 196(4), 250. <https://doi.org/10.1007/s10661-024-12345-6>
- Official Water Supply Data. (2025). *Annual water report of Srinagar Municipal Corporation (SMC)*. Department of Public Health Engineering.
- Rasool, R., Hassan, Q., & Bhat, M. S. (2018). Hydrological role of water bodies in urban Kashmir: A study of Srinagar City. *Earth Systems and Environment*, 2(2), 323–333. <https://doi.org/10.1007/s41748-018-0067-1>
- Rather, S. A., Jeelani, G., & Altaf, S. (2020). Impact of urbanization on the water resources of Srinagar: An integrated study. *Environmental Earth Sciences*, 79(2), 70. <https://doi.org/10.1007/s12665-019-8775-3>
- Wani, K. A., Zarger, R. K., & Khan, M. A. (2020). Socio-political dimensions of water governance in conflict-prone Kashmir Valley. *Water Policy*, 22(6), 945–960.
- WRI India. (2024). *Integrating water resource management and urban planning: Lessons for Indian cities*. World Resources Institute India. <https://wri-india.org/publication/integrating-water-management-urban-planning>

A STUDY OF WILLINGNESS TO SEEK PROFESSIONAL COUNSELLING FOR PSYCHOLOGICAL AND INTERPERSONAL CONCERNS AMONG YOUTH

¹Dr Shabina

Assistant Professor (Sr. Scale)
Functional English, GCoE, Srinagar

²Dr Irfat Ara Khan

Assistant Professor (Sr. Scale)
Psychology, GCoE, Srinagar

Abstract

The study examines the willingness of college-going youth in Kashmir to seek professional counselling for psychological and interpersonal concerns. It identifies common psychological issues such as loneliness, emotional imbalance, and stress, influenced by social, familial, and cultural factors. Using a survey method, data were collected from 504 undergraduate students through a structured questionnaire. Statistical analysis revealed that youth exhibit a moderate to high willingness to seek counselling, especially for career and serious emotional concerns. However, variations were observed across gender and rural–urban groups, and barriers like stigma and lack of awareness persist. The study highlights the need to promote counselling services and improve mental health awareness among youth.

Key words: Counselling, Youth, Mental Health, Stigma, Behaviour, Awareness, Gender, Rural, Urban, Stress

Introduction

Youth are the hope of the future of the world or in other words the future of the world lies in the hands of the youth. It is they who build up the nations. Youth are the resources of country and their empowerment is the empowerment of a nation. The present generations have their hope in the youth. They are productive and active people who are capable of large undertakings. In the midst of their strong and stubborn nature we realize the fact that there are several problems among the present day youth. These problems are most often psychological and are developed during their stages of development. There is no other way but to recognize, identify and find out remedies to such problems of the youth. The science of psychology and the Psycho analysis has been contributed much to the youth related problems and solutions. Youth psychology is a branch of psychology that develops very fast. Let the youth of the world merit from the psychological innovations of psyche of the youth. This paper is an attempt to point out the major psychological problems of the youth, the causes behind it and discusses a few remedial measures.

1.1 Major Psychological Problems of the Youth

Youth of present day are having several psychological problems. Most often these problems are not their own creation and they are not completely responsible for their problems. Even then they are often mistakenly accused to the psychological defects visible in their life. Major psychological problems found among the present day youth are the following:

1.1.1 Feeling of Isolation and Loneliness

One of the major problems found among the youth is that they feel that they are alone. They wanted to be in company; but circumstances and the feeling within them forces to be alone. This habit makes them moody and sometimes even leads them either to depression or a kind of anti-social attitude. Feeling of isolation is more in girls when compared to boys. The feeling of unwanted ness is very much strong in them. They like to watch TV or other Medias rather than to relate with people around them. They privatize their time in front of the visual media.

1.1.2 Thirst for Acceptance

Youth always like to attract others by their appearance and various other means. A single or slight event of avoiding will be great wound to their mind. In order to get attention of the people they choose whatever means possible. This may cause again a kind of depressive and negative feeling because people easily identify artificial characters of youth especially the colleagues themselves.

1.1.3 Criminal Tendencies

Often youth are known for criminal activities. They develop criminal tendencies from their living social circumstances. Youth easily develop in their mind an anti- social attitude by which most often they are forced to do criminal activities

1.1.4. Emotional Imbalances

Modern youth are very much imbalanced in their emotional life. Researches show that they are very high at their IQ rate but deep down at EQ levels. They don't know how to take away strain and do not know how face with a risky moment. They are crooked enough but not prudent enough. Failures of love affairs become common among the youth. Girls are easily trapped by the boys for immoral sexual activities. Their life also more open to sex rackets due to lack of emotional maturity and prudence.

1.1.5 Inferiority Complexes

A lot of inferiority complexes can be seen among the youth of today. They are not coming forward to the fore front of a dignified group. They feel that they are not worthy. They have also the feeling that they are sinners and anti-social. They think that they are not according to the expectation of the society, their teachers and the parents.

1.1.6. Alcoholism and Drug Addiction

Youth are nowadays very much prone to alcoholism and drugs. They often act criminally or violently because they are under the influence of drinks and drugs. It becomes really a problem in the life of the youth. They are unhappy at their home, become week in their studies, a lot of tension and anxiety is created in their mind.

1.1.7 Suicidal Tendencies

May be due to the all above said problems they have also a tendency for suicide. For silly reasons they like to end their life. Failures in the examinations and the love failures are sufficient reasons for them to commit suicide. Sexually abused ones had the suicidal tendencies earlier

but nowadays researches show and it seems that sexually abused is not a sufficient reason for suicide.

1.2 Causes behind the Psychological Problems

There are several causes and cause factors in the life of a youth that creates psychological problems in his/her life. These problems are caused not as mere occurrences of their youth hood, but are developed through the different stages of his/her personality. Some of those causes are the following:

1.2.1 Physical problems

Physical problems are one of the main causes that create mental or psychological problems among the youth. Lack physical fitness affects them negatively. Physiological problems are mainly caused by Poverty, Malnutrition and Diseases.

a) Poverty

Instead of improving upon the system to reduce the economic differences between classes, if the society builds counteracting machinery to curb the violence, it leads to nowhere. Poverty of the people affects the psycho-social development of child.

b) Malnutrition

Good nutrition for the brain can be had from Vitamin B and minerals, magnesium, zinc, calcium. The phyto-nutrients are the antioxidants quite necessary to check any radical damage occurring in the body. The phyto-nutrients are concentrated and are responsible for the color, scent, and flavor of the vegetables and fruits.

c) Diseases

All kinds of trans-generational and even the ordinary diseases causes ill health among the youth and it severely affects the social life and thereby the psychological maturity. Diseases caused by malnutrition and the food habits affect very much the younger generations and they are very much influenced by the cruel and wretched hands of it.

1.2.2 Parental control

Types and patterns of parental controlling behavior and their effects on children's development have been the focus of considerable research over the past several decades. Although specific labels vary, researchers have consistently identified control in their conceptualizations of salient parental behaviors. The several ways in which parental control of children has been conceptualized and operationalized testifies to the complexity of the construct. It is therefore not surprising that the empirical evidence for the effects of parental control on children has often been inconsistent or equivocal. There have been some attempts to integrate and synthesize the various conceptualizations of control in order to bring clarity to the construct and its effects on children's development.

1.2.3 The Influence of Media Violence

Research on violent television and films, video games, and music reveals unequivocal evidence that media violence increases the likelihood of aggressive and violent behavior in both immediate

and long-term contexts. The effects appear larger for milder than for more severe forms of aggression, but the effects on severe forms of violence are also substantial when compared with effects of other violence risk factors or medical effects deemed important by the medical community (eg. Effect of aspirin on heart attacks). The research base is large; diverse in methods, samples, and media genres, and consistent in overall findings. The evidence is clearest within the most extensively researched domain, television and film violence. The growing body of video-game research yields essentially the same conclusions. Recent surveys reveal an extensive presence of violence in modern media. Furthermore, many children and youth spend an inordinate amount of time-consuming violent media. Although it is clear that reducing exposure to media violence will reduce aggression and violence, it is less clear what sorts of interventions will produce a reduction in exposure. The sparse research literature suggests that counter-attitudinal and parental-mediation interventions are likely to yield beneficial effects, but that media literacy interventions by themselves are unsuccessful. Though the scientific debate over whether media violence increases aggression and violence is essentially over, several critical tasks remain. Additional laboratory and field studies are needed for a better understanding of underlying psychological processes, which eventually should lead to more effective interventions. Large-scale longitudinal studies would help specify the magnitude of media-violence effects on the most severe types of violence. Meeting the larger societal challenge of providing children and youth with a much healthier media diet may prove to be more difficult and costly, especially if the scientific, news, public policy, and entertainment communities fail to educate the general public about the real risks of media-violence exposure to children and youth.

1.2.4 Sexual, Physical, Emotional and Psychological Abuses

Psychological problems of the youth are sometimes related to abuses they are experienced. Most often the sexual abuses they have encountered as teenager and sometimes as a youth affect their personality very much negatively. Moody nature, inferiority complexes are sometimes the result of sexual abuses encountered. Physical abuses also generate psychological illness. Overwork at home, child labor, physical punishment by parents or relative can affect the personality of a child when it grows as a youth. They sometimes form an anti-social attitude due to these tortures. Emotional abuses are mostly on girls. They could be wounded due to unnecessary words and comments from the parents and relatives during their developmental stages. Psychologically also youth are abused because their psychological formation take place in and through their developmental stages.

Literature Review

In any research study relevant reviews have specific significance for the simple reason that the review helps us in many ways. It provides information about the area that is either unexplored or properly explored. Secondly, from reviews one gets information about the antecedent variables of the factors those are being studied. Finally, it is possible to collect information to design those strategies in undertaking the study.

Vogel et.al (2007) studied Perceived Public Stigma and the Willingness to Seek Counselling. The mediating roles of self-stigma and attitudes toward counselling. This study examined the mediating effects of the self-stigma associated with seeking counselling and attitudes toward seeking counselling on the link between perceived public stigma and willingness to seek counselling for psychological and interpersonal concerns. Structural equation modelling of data from 676 undergraduates indicated that the link between perceived public stigma and willingness

to seek counselling was fully mediated by self-stigma and attitudes. Perceptions of public stigma contributed to the experience of self-stigma, which, in turn, influenced help-seeking attitudes and eventually help-seeking willingness. Furthermore, 57% of the variance in attitudes toward counselling and 34% of the variance in willingness to seek counselling for psychological and interpersonal concerns were accounted for in the proposed model.

Bichanga (2005) studied the students' attitudes towards guidance and counselling in public secondary Schools. The study revealed that most teachers-counsellors in Ngong Division, Kajiado District, had not attained the highest level of training in counselling skills though they were all professional teachers. All schools recognized the guidance and counselling department. The efficacy of guidance and counselling could be improved through training teachers in guidance and counselling skills. It also revealed that students tend to seek help more frequently from teacher counsellors of their gender. The study further found that lack of competency of the teacher-counsellor, lack of resources and facilities for the guidance and counselling department, double role of teacher counsellor, lack of appropriate time set aside from the school curriculum for guidance and counselling and fear of staff members were among the factors that hindered students from seeking guidance and counselling services. Lastly, the study established that the nature of consultations students made with the teacher-counsellors were mostly referral. From the study, it was concluded that other factors, other than the ones investigated affect the attitudes of students towards guidance and counselling. The possible factors included: non-availability of teacher-counsellors, bad prior counselling experience, negative attitudes of students towards guidance and counselling, level of training of teacher-counsellors, teaching experience, the relationship between students and teacher counsellors, cultural backgrounds and lack of awareness of guidance and counselling services in schools. From the above findings and conclusions, it was recommended that the other factors, other than the investigated ones, that affect students' attitudes towards guidance and counselling should be studied and the hindrances to students' help-seeking behavior should be eliminated.

Boon (2007), studied Symptom Attribution and Preferred Sources of Help for Psychiatric Symptoms of University Students in Singapore. The aim of this study was to examine how causal attributions of three types of psychiatric symptoms (depressive, anxious, and schizophrenic) were associated with preferred sources of help among a group of university students in Singapore. Cross-sectional data were collected through a survey questionnaire with symptom vignettes and examined by path analyses. Main results showed that endorsements of causal attributions varied by symptoms, for example, depressive and anxious symptoms were more likely than schizophrenic symptoms to be attributed to psychosocial causation. Based on separate path analyses for every symptom type, both psychosocial and biomedical causations were correlated with each other, which in turn were associated with various sources of help. Psychosocial causation was associated with the source of friend/classmate whereas biomedical causation was associated with the sources of medical doctor, mental health professional and alternative medical practitioner. Seeking helps from these professional sources were also correlated with each other. These findings suggest that causal attributions, particularly biomedical dimensions of psychiatric symptoms, should be highlighted when implementing relevant mental health services for university students; and they may be receptive to a holistic treatment team consisting of friends, medical doctors, mental health professionals, and alternative medical practitioners.

Ciarrochi Joseph V. & Deane Frank P. (2001), studied emotional competence and willingness to seek help from professional and nonprofessional sources. They sought to determine the relationship between emotional competence and willingness to seek help for emotional problems and suicidal ideation. A survey of 300 university undergraduates assessed emotional competence (skill at emotion perception, managing self-relevant emotions, and managing others' emotions), hopelessness, willingness to seek help from health professionals (eg: counsellors) and non-professionals (friends, family), and perceived usefulness of past help-seeking experience. Those who

reported feeling less skilled at managing emotions were less willing to seek help from family and friends for both emotional problems and suicidal ideation and less willing to seek help from health professionals for suicidal ideation. These relationships held even after controlling for hopelessness, sex, and past help-seeking experience. Mediation analysis suggested that people low in managing others' emotions were less willing to seek help from professionals because they had had poorer experiences with mental health professionals in the past. There was no significant relationship between emotion perception skill and willingness to seek help. People most likely to be in need of help (those poor at managing emotions) were the least willing to seek it, and if they did seek it, were the least likely to benefit from it

Brown T. (2011), studied the relationships among counselling expectations, attitudes toward seeking psychological help, psychological distress, and intention to seek counselling. The relationships among counselling expectations, attitudes toward seeking psychological help, psychological distress, and intention to seek counselling have only been examined in one previous study (Vogel, Wester, Wei, & Boysen, 2005). The primary purpose of the current replicate and addresses the limitations of the Vogue et al (2005). First, a mediation analysis of attitudes on the relationship of expectations and intention to seek therapy was performed. Next, path analyses were used to test a model of the relationship among counselling expectations, attitudes toward seeking psychological help, psychological distress, and the intent to seek counselling for men and women separately. In the hypothesized model, two separate paths were predicted to impact intentions to seek psychological help. First, three distinct expectations about counselling (personal commitment, facilitative conditions, and counsellor expertise) were expected to influence attitudes toward seeking psychological help, which in turn, predicted intention to seek counselling. Second, psychological distress was expected to relate to the intent to seek therapy. Because the hypothesized model for both genders did not fit the data, exploratory path analyses were completed. In the final path model for men, additional paths from the expectancy factors personal commitment and counsellor expertise to intent to seek therapy resulted in a well-fitting model. For women, an additional path between psychological distress and attitudes improved the model significantly.

Several surveys were used in this study to assess the relationship between social and self-stigma to attitudes toward seeking psychological help and intentions to seek counselling. Study found significant positive relationship between ratings of self-stigma and attitudes toward seeking psychological services and between self-stigma and intentions to seek counselling. Additionally, analysis revealed positive relationship between social stigma and attitudes toward seeking psychological services and between social stigma and intentions to seek counselling. This study also found that the individuals in the experimental group exposed to a brief session of Mental Health Education were more likely to seek counselling services than individuals in the control group. This study did not find support for the hypothesis that individuals exposed to a brief session of Mental Health Education will have more positive attitudes toward seeking psychological services. Additionally, this study did not find support for the hypotheses that individuals exposed to Mental Health Education will have lower ratings of social stigma and self-stigma. The findings here indicate that while there is a significant relationship between stigmas and attitudes toward seeking help that brief mental health education did not improve these attitudes.

Objectives of the Study

The main objectives of the study are:

- To assess the level of willingness to seek professional counselling for psychological and interpersonal concerns among college-going youth.
- To compare the willingness to seek professional counselling between male and female college-going youth.

- To compare the willingness to seek professional counselling between urban and rural college-going youth.

Hypotheses

Based on the available literature and the researcher's understanding of the problem, the following hypotheses were formulated:

1. H_{01} : The level of willingness to seek professional counselling for psychological and interpersonal concerns among youth will be significantly low.
2. H_{02} : There will be no significant difference in the willingness to seek professional counselling for psychological and interpersonal concerns between rural and urban youth.
3. H_{03} : There will be no significant difference in the willingness to seek professional counselling for psychological and interpersonal concerns between male and female youth.

Methodology

Here the methodology describes the procedures adopted for selecting subjects, identifying variables, selecting tools, collecting data, and applying statistical techniques for analysis.

Selection of Subjects

A total of 504 undergraduate students (215 males and 289 females) voluntarily participated in the study. The age of the participants ranged from 17 to 26 years, with a mean age of 21.20 ± 2.20 years. The participants were enrolled in Bachelor of Arts, Science, and Commerce programmes across various colleges located in both urban and rural areas of the Kashmir region.

Selection of Tools

The “*Willingness to Seek Professional Counselling Questionnaire*” was developed specifically for this study to assess students' willingness to seek professional counselling.

The development process included:

- Review of relevant literature
- Pre-pilot study
- Peer evaluation
- Questionnaire refinement
- Pilot testing

During the pre-pilot phase, an open-ended questionnaire was administered to 18 students from the University of Kashmir, along with two lecturers and two counsellors, to gather insights into commonly used help sources and perceptions of counselling.

A pilot study was subsequently conducted with 49 undergraduate students from one participating college. The questionnaire demonstrated high reliability, with split-half reliability coefficients ranging from 0.888 to 0.979 ($p < 0.001$).

Description of the Tool

The questionnaire consisted of 20 items covering various areas of concern, including:

- Academic issues
- Life transitions
- Welfare concerns
- Parental relationships
- Romantic and interpersonal relationships
- Loss and grief
- Physical health
- Self-related issues
- Depression and mood changes
- Anxiety
- Compulsive behaviour
- Abuse
- Sexual concerns
- Career choices
- Substance abuse
- Phobias
- Jealousy
- Aggression
- Shyness

These areas were identified through literature review and consultation with professionals and academicians.

Participants were asked to rate their likelihood of seeking counselling for each issue on a **5-point scale**:

1. Very Low
2. Low
3. Moderate
4. High
5. Very High

Each item followed a structured format, such as:

“If I had a serious problem related to academic concerns, the likelihood that I would seek professional counselling is...”

Administration of the Test

The investigator approached various degree colleges across the Kashmir Valley to collect data. Students were informed about the purpose of the study and were requested to participate voluntarily. The instructions were clearly explained, and participants completed the questionnaire within approximately 30 minutes.

Statistical Treatment

The collected data were analyzed using the following statistical techniques:

- **Descriptive statistics** were used to summarize and describe the demographic characteristics of the participants and the nature of the data.
- **Chi-square test** was applied to examine differences in willingness to seek professional counselling among different groups.

Results and Discussions

Here analysis of data, interpretation of findings and discussion of results have been shown. The main objective of this study was to analysis the degree of willing to seek professional psychological counselling among youth. The entire analysis was carried out by using the statistical software SPSS version 20. The level of significance for this study was chosen at 0.05.

Demographic information Descriptive Statistics of the subjects

Under this section, demographic information of the subjects and descriptive statistics has been shown for various psychological and interpersonal concerns among youth.

Table 4.1 Overall Genders and Geographical Distribution of the Subjects

	Rural	Urban	Total
Male	196	19	215
Female	230	59	289
Total	426	78	504

Table 4.1 shows that out of two hundred fifteen (215) male subjects one hundred ninety six (196) were from rural back ground and nineteen (19) subjects were from urban background and out of two hundred eighty nine (289) female subjects 230 were from rural and 78 subjects were from urban area.

Table 4.2 Descriptive Statistic of Age and Family Income of the Subjects

	Mean	SD	Range	Max	Min
Age	21.20	2.20	12	30	18
Income	7000	1000		70,000	1000

The Table 4.2 revealed that the mean age of the subjects were 21.20 and standard deviation 2.20 years. The maximum age was 30 years and minimum age was 18 years with the range of 12 years. Further it revealed that the average monthly income of the family was Rs. 7,000 and maximum was Rs. 70,000 and Minimum income was Rs. 1000.

Descriptive Statistics of Willing to Seeking Professional Counselling

Twenty items were presented to students, in which they were asked to rate the likelihood that they would seek counselling for a variety of areas of concern: academic, transitions, welfare, parental relationships, romantic

relationships, other relationships, loss, physical health, self, depression and mood change, anxiety, compulsive behaviour, abuse, sexual issues career choice, drug abuse, phobia, jealousy, aggressive behaviour and shyness.

Table 4.3: Descriptive Statistics of Subjects' Willingness to Seek Professional Psychological Counselling

S. No.	Concerns	Mean	Std. Deviation	Min.	Max.
1	Academic	3.42	1.29	1.00	5.00
2	Well-being/Happiness	3.13	1.09	1.00	5.00
3	Transition	3.21	1.16	1.00	5.00
4	Parental relationship	3.50	1.29	1.00	5.00
5	Romantic Relationship	2.94	1.38	1.00	5.00
6	Other relationship	3.15	1.17845	1.00	5.00
7	Loss or death of close person	3.71	1.31644	1.00	5.00
8	Physical Health	3.38	1.29	1.00	5.00
9	Self/Identity	3.41	1.20	1.00	5.00
10	Depression and mood change	3.31	1.21	1.00	5.00
11	Anxiety/Nervousness	3.51	1.15	1.00	5.00
12	Sexual issue	3.06	1.36	1.00	5.00
13	Compulsive Behaviour	3.27	1.17	1.00	5.00
14	Abuse	3.35	1.23	1.00	5.00
15	Choice of career	3.90	1.24	1.00	5.00
16	Drug abuse	3.61	1.39	1.00	5.00
17	Phobia	3.06	1.29	1.00	5.00
18	Jealousy	3.00	1.27	1.00	5.00
19	Aggressive behaviour	3.19	1.15	1.00	5.00
20	Shyness	3.14	1.39	1.00	5.00

The Table 4.3 shows that the willingness to seek professional counselling was highest in case of choice of career and loss of close person (Mean values 3.90 and 3.71 respectively) whereas, the willingness to seek professional counselling is least in case of romantic relation, sexual issue Jealousy and phobia (Mean values 2.94, 3.06, 3.00 and 3.06 respectively).

The result of the study is presented in three sections to address the following hypotheses:

1. **H₀.** It was hypothesized that, the level of willingness to seek professional counselling for psychological and interpersonal concern among youth will be significantly low.

2. H_0 : It was further hypothesized that, there will not be significant difference in the willingness to seek professional counselling for psychological and interpersonal concern between rural and urban youth.
3. H_0 : Similarly, it was further hypothesized that, there will not be significant difference in the willingness to seek professional counselling for psychological and interpersonal concerns between male and female.

Tab. 4.4 Chi-Square χ^2 (Cross Tabulation) for Degree of Willingness to Seek Professional Counselling for Psychological and Interpersonal Concerns (N=504)

S. No.	Concerns	Very Low	Low	Moderate	High	Very High	χ^2
1	Academic	61(12.1%)	44 (8.7%)	153(30.4%)	113(22.4%)	133(26.4%)	86.51*
2	Well being/Happiness	34 (6.7%)	105(20.8%)	185(36.7%)	117(23.2%)	63 (12.4%)	131.5*
3	Transition	42 (8.3%)	97 (19.2%)	151 (30%)	140(27.8%)	74 (14.7%)	81.81*
4	Parental relationship	43 (8.5%)	85 (16.9%)	93 (18.5%)	139(27.6%)	144(28.6%)	69.21*
5	Romantic relationship	101 (20%)	100 (20%)	120(23.8%)	91 (18%)	92 (18.3%)	5.38
6	Other relationship	50 (9.9%)	87 (17.3%)	184(36.4%)	103(20.4%)	80 (15.9%)	100.5*
7	Loss/death of close person	46 (9.1%)	54 (10.7%)	92 (18.3%)	120(23.8%)	192(38.1%)	138.4*
8	Physical health	56(11.1%)	73 (14.5%)	119(23.6%)	134(26.6%)	122(24.2%)	46.26*
9	Self identity	29 (5.8%)	91 (18.1%)	153(30.4%)	105(20.8%)	126 (25%)	85.60*
10	Depression & mood change	45 (8.9%)	85 (16.9%)	137(27.2%)	141 (28%)	96 (19%)	62.62*
11	Anxiety/Nervousness	28 (5.5%)	77 (15.5%)	117(23.2%)	172(34.1%)	110(21.8%)	111.93*
12	Sexual issue	95(18.8%)	69 (13.7%)	143(28.4%)	101 (20%)	96 (19%)	28.26*
13	Compulsive behavior	40 (7.9%)	89 (17.7%)	151 (30%)	138(27.4%)	86 (17.1%)	78.95*
14	Abuse	45 (8.9%)	76 (15.1%)	152(30.2%)	118(23.4%)	113(22.4%)	67.40*
15	Choice of career	30 (6%)	51 (10.1%)	81 (16.1%)	115(22.8%)	227 (45%)	238.22*
16	Drug abuse	69(13.7%)	46 (9.1%)	74 (14.7%)	136 (27%)	179(35.5%)	119.9*
17	Phobia	82(16.3%)	77 (15.3%)	155(30.8%)	108(20.4%)	82 (16.3%)	42.29*
18	Jealousy	78(15.5%)	100(19.8%)	145(28.8%)	104(20.6%)	77 (15.3%)	39.29*
19	Aggressive behavior	46 (9.1%)	84 (16.7%)	171(33.9%)	130(25.8%)	73 (14.5%)	97.60*
20	Shyness	88(17.5%)	77(15.3%)	127(30.4%)	97(19.2%)	115(22.8%)	16.19*

*Significant at 0.05 Level (df=4)

Tab.4.4 reveals that degree of willingness to seek professional counselling was generally moderate in various psychological and interpersonal concerns; academic, happiness, transition, romantic relation, other relation, sexual issue, abuse, phobia, jealousy, aggressive behavior, shyness and compulsive behavior which is significant at 0.05 level. The areas of concern which achieved high degree of willingness to seek professional counselling

is physical health, depression and anxiety, which is significant at 0.05 level. Finally, the degree of willingness to seek psychological counselling is very high for various psychological and interpersonal concerns, namely, parental relationship, death of close person, self/identify choice of career and drug abuse. Hence, the null hypothesis i.e., “the level of willingness to seek professional counselling for psychological and interpersonal concern among youth will be significantly low” was rejected and it was found that the degree of willingness to seek professional counselling is high in majority of psychological and interpersonal concerns.

Tab. 4.5 Chi-Square χ^2 (Cross Tabulation of Rural/Urban Responses) for Degree of Willingness to Seek Professional Counselling for Psychological and Interpersonal Concerns (N-504)

Concern	R/U	Very Low	Low	Moderate	High	Very High	χ^2
Academic/Study	R	41	37	124	99	125	25.31*
Academic/Study	U	20	7	29	14	8	
Well being/happiness	R	25	90	156	99	56	4.18
Well being/happiness	U	9	15	29	18	7	
Transition	R	34	81	132	115	64	2.27
Transition	U	8	16	19	25	10	
Parental relation	R	35	70	82	118	121	1.16
Parental relation	U	8	15	11	21	23	
Romantic relationship	R	86	91	102	78	69	9.73*
Romantic relationship	U	15	9	18	13	23	
Other relation	R	39	74	158	90	65	3.19
Other relation	U	11	13	26	13	15	
Loss of close person	R	39	43	81	103	160	2.22
Loss of close person	U	7	11	11	17	32	
Physical health	R	46	63	98	116	103	1.27
Physical health	U	10	10	21	18	19	
Self/Identity	R	19	80	130	90	107	8.95
Self/Identity	U	10	11	23	15	19	
Depression	R	35	70	110	129	82	9.03
Depression	U	10	15	27	12	14	
Anxiety/Nervousness	R	26	64	103	147	86	6.2
Anxiety/Nervousness	U	2	13	14	25	24	
Sexual Issue	R	75	59	120	93	79	7.12
Sexual Issue	U	20	10	23	8	17	

Concern	R/U	Very Low	Low	Moderate	High	Very High	χ^2
Compulsive behavior	R	34	77	131	113	71	1.84
Compulsive behavior	U	6	12	20	25	15	
Abuse	R	39	63	136	96	92	4.89
Abuse	U	6	13	16	22	21	
Choice of career	R	25	38	58	100	205	20.60*
Choice of career	U	5	13	23	15	22	
Drug abuse	R	58	34	61	117	156	5.38
Drug abuse	U	11	12	13	19	23	
Phobia	R	66	65	125	93	77	8.52
Phobia	U	16	12	30	15	5	
Jealousy	R	72	86	125	87	56	12.34*
Jealousy	U	6	14	20	17	21	
Aggressive behavior	R	39	67	154	105	61	6.91
Aggressive behavior	U	7	17	17	25	12	
Shyness	R	82	64	105	81	94	6.24
Shyness	U	6	13	22	16	21	

Significant at 0.05 Level (df=4) Rural=R, Urban=U

The Tab. 4.5 reveals that there are significance difference in the level of willingness to seek professional psychological counselling between rural and urban youth in various concerns (Academic, Romantic relationship, Choice of career and Jealousy) at 0.05 level. Hence, the Null Hypothesis, i.e., H.: “there will not be significant difference in the willingness to seek professional counselling for psychological and interpersonal concern between rural and urban youth” is partially rejected. As illustrated in the Tab. 4.5 as compare to urban youth, the rural youth are more willing to seek professional counselling for the concern of academic and career, whereas, compare to rural youth the urban youth are more willing to seek professional counselling for romantic relation and jealousy.

Tab. 4.6 Chi-Square χ^2 (Cross Tabulation of Gender Responses) for Degree of Willingness to Seek Professional Counselling for Psychological and Interpersonal Concerns (N=504)

Concern	Gender	Very Low	Low	Moderate	High	Very High	χ^2
Academic/Study	M	28	26	64	48	49	7.03
	F	33	18	89	65	84	
Well being/happiness	M	13	56	79	40	27	8.59
	F	21	49	106	77	36	
Transition	M	19	50	64	57	25	5.85
	F	23	47	87	83	49	

Concern	Gender	Very Low	Low	Moderate	High	Very High	χ^2
Parental relation	M	11	43	47	61	53	11.7*
	F	32	42	46	78	91	
Romantic relationship	M	42	47	54	35	37	1.96
	F	59	53	66	56	55	
Other relation	M	25	35	83	48	24	7.65
	F	25	52	101	55	56	
Loss of close person	M	26	28	55	60	46	46.6*
	F	26	37	60	146	26	
Physical health	M	31	37	54	41	52	13.94*
	F	25	36	65	93	70	
Self/Identity	M	14	50	63	43	45	8.76
	F	15	41	90	62	81	
Depression	M	16	38	59	68	34	4.92
	F	29	47	78	73	62	
Anxiety/Nervousness	M	12	40	59	68	36	10.72*
	F	16	37	58	104	74	
Sexual Issue	M	29	24	67	50	45	11.22*
	F	66	45	76	51	51	
Compulsive behavior	M	21	39	63	51	41	4.40
	F	19	50	88	87	45	
Abuse	M	18	36	81	42	38	14*
	F	27	40	71	76	75	
Choice of career	M	8	20	37	59	91	7.8
	F	22	31	44	56	136	
Drug abuse	M	37	18	37	60	63	9.45
	F	32	28	37	76	116	
Phobia	M	39	43	63	45	25	11.54
	F	43	34	92	63	57	
Jealousy	M	33	45	68	42	27	3.32
	F	45	55	77	62	50	
Aggressive behavior	M	20	39	67	60	29	2.25
	F	26	45	104	70	44	
Shyness	M	40	39	42	44	50	7.38
	F	48	38	85	53	65	

*Significant at 0.05 level (df=4); Male = M, Female = F

The Tab. 4.6 reveals that there is significance difference in the level of willingness to seek professional psychological counselling between male and female in various concerns (Parental relation, Loss or death of close person, physical health, anxiety, sexual issue, abuse and phobia) at 0.05 level. Hence, the Null Hypothesis, i.e., H.: “there will not be significant difference in the willingness to seek professional counselling for psychological and interpersonal concern between male and female” is partially rejected. As illustrated in the Tab. 4.5 as compare to male subjects the female subjects are more willing to seek professional counselling for the concern of Parental relation, Loss or death of close person, physical health, anxiety, sexual issue, abuse and phobia, whereas, compare to female the male are more willing to seek professional counselling for sexual issue.

Discussion of Findings

As seen in the Tab. 4.4 the mean scores of willingness to seek professional psychological counselling ranged from 2.9 to 3.9. These results indicate that the level of college going youths’ willingness to seek professional counselling was generally moderate. The areas of concern which achieved the highest mean scores were parental relation, choice of career, loss or death of close person and drug abuse. On the other hand, romantic relation, sexual issue and jealousy tended to have the lowest mean scores of willingness to seek counselling, which is statically significant at 0.05 level (Tab.4.4).

However, when the comparison of the level of willingness to seek professional psychological counselling between rural and urban college going youth irrespective of gender was conducted per area of concern using the chi-square test, the results showed significant differences in very few areas of concern, those area of concerns are academic/study, romantic relationship, choice of career and jealousy, which are clearly illustrated in Tab. 4.5.

Further when the comparison of the level of willingness to seek professional psychological counselling between male and female college going youth irrespective of geography was conducted per area of concern using the chi-square test. In problems related to parental relation, loss or death of close person, physical health, anxiety, sexual issue, abuse and phobia, the level of willingness to seek help from professional psychological counselling among female subjects were significantly higher ($P < 0.05$) than the male counterpart, which are clearly illustrated in Tab.4.6.

The possible discouraging factor may be the burden of counselling fee, feeling shy to reveal one’s problems to others, difficulty in trusting counselors because of unfamiliarity, lack of confidence in the benefit of counselling, ability to solve one’s own problem, feeling shy to reveal one’s. problems to others, lack of knowledge which service is good (Jenny Lukito Setiawan, 2006).

The possible encouraging factors in seeking professional counselling are: provide information about the existence of the service, location, opening hours, and the procedure in seeking a counselling service, assure strict confidentiality, adjust the counselling fee according to the students, and provide information about the benefits and functions of a counselling service. Encouraging factors in seeking the university’s counselling service.

Conclusions

On the basis of analysis and interpretation following conclusions have been drawn:

- It is concluded that out of two hundred fifteen (215) male subjects one hundred ninety six (196) were from rural back ground and nineteen (19) subjects were from urban background, and out of two hundred eighty nine (289) female subjects 230 were from rural and 78 subjects were from Urban area.
- It is concluded that the mean age of the subjects were twenty one (21) and standard deviation 2.20

years. The maximum age was thirty (30) years and minimum age was Eighteen (18) years with the range of twelve (12) years. Further it revealed that the average monthly income of the family was Rs. 7,000 and maximum was Rs. 70,000 and minimum income was Rs. 1000.

- It is concluded that willingness to seek professional counselling was highest in case of choice of career and loss of close person whereas, the willingness to seek professional counselling is least in case of romantic relation, sexual issue, Jealousy and phobia.
- It is concluded that rural youth were more willing to seek professional psychological counselling for the area of concerns of Academic/study and choosing career, whereas, urban youth were more willing to seek professional counselling for the concern of romantic relation and jealousy as compare to rural youth.
- It is further concluded that female subjects were more willing to seek professional counselling for the concern of parental relation, loss or death of close person, physical health anxiety and phobia, whereas, male subjects were more willing to seek professional psychological counselling for the concern of sexual issue and abuse.

References

- ❖ Al-Darmaki (2012). Relationships between career counselling attitudes and self-esteem and self-efficacy among Emirati University students. *Journal of Career Development*, 39 (2). Retrieved from <http://jcd.sagepub.com/content/early/2010/12/15/0894845310380046>
- ❖ Al-Darmaki, F. (2011). Needs, attitudes toward seeking professional help, and preferred sources of help among Emirati college students. *Journal for International Counselor Education*, 3, 39-57. Retrieved from <http://digitalcommons.library.univ.edu/jice/>
- ❖ AM. Rajinikanth. *Counselling skills for health care professionals*. Jaypee Brothers, 2010.
- ❖ Andrews, G., Issakidis, C., & Carter, G. (2001). Shortfall in mental health service utilization. *British Journal of Psychiatry*, 179, 417-425.
- ❖ Bassaly, A. and Macallan, H. (2006) Willingness to use psychological help among Polish immigrants in the UK. *Counselling Psychology Review* Vol 21 No 4. Retrieved from <http://dcop.bps.org.uk/publications->
- ❖ [Databases.cfm?&Results Type Abstracts&ResultSet_ID=462&FormDisplayMode=view&frmShow Selected=true&localAction=details](http://databases.cfm?&Results Type Abstracts&ResultSet_ID=462&FormDisplayMode=view&frmShow Selected=true&localAction=details)
- ❖ Bichanga (2005) Students' attitudes towards guidance and counselling in public secondary schools
- ❖ Brown T. (2011), the relationships among counselling expectations, attitudes toward seeking psychological help, psychological distress, and intention to seek counselling, unpublished ph.d thesis, Ball State University Muncie, Indiana.
- ❖ Choi, Na-Yeun & Miller, Matthew J. (2014), AAPI college students' willingness to seek counselling: The role of culture, stigma, and attitudes. *Journal of Counselling Psychology*, Vol 61(3), 340-351..
- ❖ Ciarrochi Joseph V. & Deane Frank P. (2001), Emotional competence and willingness to seek help from professional and nonprofessional sources, *British Journal of Guidance & Counselling*. Vol. 29, No. 2.

- ❖ Clement Sarah, Schauman, O., Graham, T., et al. (2015). What is the impact of mental health-related stigma on help-seeking? A systematic review. *Psychological Medicine*, 45(1), 11–27.
- ❖ Corey G. Theory and Practice of Counselling and Psychotherapy. New Delhi: Cengage Learning India Pvt Ltd, 2000.
- ❖ Corrigan, P. (2004). How stigma interferes with mental health care. *American Psychologist*, 59, 614-625.
- ❖ Erkan S., Ozbay Y., Chankaya Z. C., Terzi S. (2012) The Prediction of University Students' Willingness to Seek Counselling.
- ❖ Hobson Heather L. (2008) The effects of mental health education on reducing stigma and increasing positive attitudes toward seeking therapy, Unpublished master thesis, Humboldt State University.
- ❖ Jenny Lukito Setiawan (2006) Willingness to seek counselling, and factors that facilitate and inhibit the seeking of counselling in Indonesian undergraduate students, *British Journal of Guidance & Counselling*, 34:3, 403-419.
- ❖ Joseph, J, "Willingness to Seek Professional Psychological Help Among Canadians of African Descent: a Culturally Based Help-Seeking Model" (2010). Electronic Theses and Dissertations. Paper 487.
- ❖ Kapur M. Counselling Children with Psychological Problems. New Delhi: Pearson India, 2011.
- ❖ Kim Byan S. S & Omizo M. M. (2003) Asian Cultural Values, Attitudes toward Seeking Professional Psychological Help, and Willingness to See a Counselor. *The Counselling Psychologist*, vol. 31 ñ. 3. 343-36.
- ❖ Kothari.C.R. Research methodology methods and Techniques. New Delhi: New age publication, 2004.
- ❖ Lee, Boon-Ooi (2007) Symptom Attribution and Preferred Sources of Help for Psychiatric Symptoms of University Students in Singapore, *Asian Journal of Counselling*, 2007, Vol. 14 Nos. 1 & 2, 49-90.
- ❖ Ma'arop, A. M. Azman, N.H. Alias, N. Z. (2006), Bachelor of Education (TESL) Foundation Cohort 3 Students' Willingness in Seeking Counselling Services in IPBA.
- ❖ Ravi M. Counselling: What, Why and How. Viva Books Private Limited, 2008.
- ❖ Raviv A, RavivA, Gefen I V. Fink A.S. (2009), the personal service gap: Factors affecting adolescents' willingness to seek help, *Journal of Adolescence* 32, 483-499.

Personal and Social Adjustment of Screen – Addicted and Non-Addicted Secondary School Students

Shagufta Rehman

Research Scholar

School of education & Behavioral Sciences

shagufta.rehman43@gmail.com

Dr Showkat Rashid Wani

Associate Professor

Centre for Distance & Online Education, University of Kashmir

ainshrashowkat2008@gmail.com

Abstract

The present study aimed to investigate the dimension-wise differences in personal and social adjustment between screen-addicted and non-addicted secondary school students using the California Test of Personality. In the context of increasing digital engagement among adolescents, understanding its impact on specific dimensions of adjustment is of considerable importance. The study was conducted on a sample of 100 secondary school students, comprising 50 screen-addicted and 50 non-addicted individuals, selected through purposive sampling.

The California Test of Personality was employed to assess various dimensions of adjustment. Personal adjustment included dimensions such as self-reliance, sense of personal worth, emotional stability, and sense of freedom, while social adjustment encompassed social standards, social skills, family relations, school relations, and community relations. Data were analyzed using descriptive statistics (mean and standard deviation) and inferential statistics (independent samples t-test).

The results indicated significant differences between screen-addicted and non-addicted students across most dimensions of personal and social adjustment. Non-addicted students demonstrated higher levels of self-reliance, emotional stability, and sense of personal worth, whereas screen-addicted students exhibited greater emotional instability and dependence. Similarly, in the domain of social adjustment, non-addicted students showed better social skills, healthier family and school relationships, and stronger adherence to social standards, while screen-addicted students experienced comparatively poorer social interaction and adjustment difficulties.

The findings suggest that excessive screen usage negatively influences multiple dimensions of adolescents' personal and social adjustment. The study emphasizes the need for targeted interventions focusing on specific areas of maladjustment to promote balanced development and healthy digital habits among students.

Keywords: Screen addiction, Personal adjustment, Social adjustment, California Test of Personality, Adolescents, Dimension-wise analysis

Introduction

The unprecedented growth of digital technology over the past two decades has fundamentally reshaped the developmental environment of adolescents. The proliferation of screen-based devices—including smartphones, tablets, computers, and television—has led to a dramatic increase in daily screen exposure among school-going children. While digital platforms have opened new avenues for learning, communication, and creativity, their excessive and unregulated use has given rise to a behavioral concern widely conceptualized as screen addiction. This phenomenon is increasingly being recognized as a significant psychosocial issue with far-reaching implications for adolescents' cognitive, emotional, and social development.

Screen addiction, often described in terms of excessive, compulsive, and poorly controlled engagement with screen-based activities, shares characteristics with behavioral addictions such as impaired self-regulation, preoccupation, withdrawal symptoms, and neglect of real-life responsibilities. Adolescents, due to their developmental vulnerability, are particularly susceptible to such maladaptive patterns. The attraction of digital media—instant gratification, social validation, immersive content, and continuous stimulation—can interfere with essential developmental tasks, including identity formation, emotional regulation, and the establishment of meaningful interpersonal relationships.

Adolescence represents a critical transitional stage marked by rapid physical growth, heightened emotional sensitivity, and expanding social roles. During this period, the ability to achieve effective personal and social adjustment becomes central to healthy personality development. Adjustment, in psychological terms, refers to the dynamic process through which an individual maintains a harmonious relationship with the self and the environment. It involves managing internal needs, emotions, and aspirations while simultaneously responding to external demands, expectations, and social norms.

Personal adjustment pertains to the intra-individual domain and reflects an adolescent's emotional stability, self-concept, autonomy, and sense of personal worth. It includes dimensions such as self-reliance, which indicates independence in thought and action; sense of personal worth, reflecting self-esteem and confidence; emotional stability, denoting the ability to regulate emotions effectively; and sense of freedom, representing the perception of autonomy and absence of undue internal constraints. These dimensions collectively determine how well an individual copes with stress, frustration, and internal conflicts.

In contrast, social adjustment refers to the inter-individual domain and encompasses the ability to interact effectively with others and conform to societal expectations. It includes adherence to social standards, development of social skills, and the capacity to maintain harmonious relationships within key social contexts such as family, school, and the broader community. Healthy social adjustment is characterized by cooperation, empathy, effective communication, and respect for social norms, all of which are essential for successful integration into society.

To systematically assess these multifaceted aspects of adjustment, standardized tools such as the California Test of Personality have been widely employed in psychological and educational research. This instrument provides a comprehensive evaluation of both personal and social adjustment across well-defined dimensions, allowing for a nuanced understanding of adolescents' adaptive functioning. Its dimension-wise structure makes it particularly suitable for identifying specific areas of strength and maladjustment.

The increasing dominance of screen-based activities in adolescents' daily routines has raised critical concerns regarding its impact on these dimensions of adjustment. Empirical observations and emerging research suggest that excessive screen use is associated with a range of maladaptive outcomes, including reduced attention

span, emotional dysregulation, decreased physical activity, social isolation, and impaired interpersonal relationships. Screen-addicted students may exhibit lower self-reliance due to dependency on virtual environments, diminished sense of personal worth linked to social comparison on digital platforms, and heightened emotional instability resulting from overstimulation and disrupted sleep patterns.

From a social perspective, excessive screen engagement can limit real-world interactions, thereby hindering the development of essential social skills. It may also negatively affect family relationships due to reduced communication, disrupt school adjustment through decreased academic engagement, and weaken adherence to social norms and responsibilities. Conversely, students who maintain balanced and regulated screen usage are more likely to demonstrate healthier adjustment patterns, both personally and socially.

The theoretical underpinnings of this relationship can be understood through frameworks such as the displacement hypothesis, which posits that time spent on screens displaces meaningful real-life interactions and activities, and the social learning perspective, which emphasizes the influence of media content on behavior and attitudes. Additionally, self-determination theory highlights how excessive digital engagement may undermine intrinsic motivation, autonomy, and relatedness—key components of psychological well-being.

Despite the growing body of literature on digital media use and adolescent well-being, much of the existing research has focused on general psychological outcomes such as anxiety, depression, and academic performance. There remains a relative paucity of studies that examine dimension-wise differences in personal and social adjustment, particularly using standardized and comprehensive measures like the California Test of Personality. Understanding these differences is crucial, as it allows for the identification of specific areas of vulnerability rather than treating adjustment as a unidimensional construct.

In this context, the present study seeks to conduct a systematic and comparative analysis of screen-addicted and non-addicted secondary school students across various dimensions of personal and social adjustment. By adopting a dimension-wise approach, the study aims to provide a more detailed and diagnostic understanding of how screen addiction influences different facets of adolescent adjustment.

The significance of this study lies in its potential to inform educational practices, psychological interventions, and policy formulations. Identifying specific dimensions of maladjustment can help educators and counselors design targeted strategies to enhance emotional resilience, social competence, and responsible digital behavior among students. Furthermore, the findings may contribute to raising awareness among parents and stakeholders regarding the importance of regulating screen time and promoting a balanced lifestyle.

In conclusion, as digital technology continues to permeate every aspect of adolescent life, it becomes imperative to critically examine its impact on fundamental developmental outcomes such as personal and social adjustment. The present study is a step in this direction, aiming to bridge existing research gaps and contribute to a more comprehensive understanding of adolescent well-being in the digital age.

Review of Literature

The rapid advancement of digital technology has significantly altered the behavioral patterns and psychosocial environment of adolescents. With the increasing accessibility of smartphones, computers, and other screen-based devices, concerns regarding excessive screen use and its psychological consequences have intensified. Screen addiction, often conceptualized as a form of behavioral addiction, has been associated with a range of maladaptive outcomes, particularly in the domains of personal and social adjustment.

Screen Time and Psychological Well-being

A substantial body of research has established a negative relationship between excessive screen time and adolescents' psychological well-being. For instance, **Twenge and Campbell (2018)** found that adolescents who spent more time on screens reported lower levels of psychological well-being, including reduced emotional stability, diminished self-control, and increased symptoms of anxiety and depression. Similarly, **Boers et al. (2019)** reported that increased social media use was significantly associated with higher levels of depressive symptoms among adolescents over time.

These findings suggest that excessive screen engagement adversely affects key dimensions of personal adjustment, particularly emotional stability and sense of personal worth. Supporting this view, **Kross et al. (2013)** demonstrated that increased use of social networking platforms predicts declines in subjective well-being, highlighting the potential emotional costs of digital overexposure.

Screen Addiction and Adjustment

Research has consistently shown that problematic screen use is linked with poor adjustment outcomes. **Young (1998)**, one of the pioneers in the field of internet addiction, emphasized that excessive internet use disrupts normal functioning and leads to social and emotional maladjustment. Later studies have reinforced this perspective. For example, **Ko et al. (2012)** found that adolescents with internet addiction exhibited significantly higher levels of emotional problems, social withdrawal, and behavioral difficulties compared to non-addicted peers.

Moreover, **Jeong et al. (2016)** reported that excessive screen time negatively predicted school adjustment, including academic engagement and interpersonal relationships. These findings indicate that screen addiction affects both personal and social domains of adjustment, leading to difficulties in managing emotions, maintaining relationships, and fulfilling academic responsibilities.

Personality Factors and Personal Adjustment

The relationship between personality traits and screen addiction has also received considerable attention. Studies suggest that adolescents with low self-esteem, poor self-regulation, and high emotional instability are more prone to developing screen addiction. **Mei et al. (2016)** found that neuroticism was positively associated with internet addiction, while conscientiousness and agreeableness were negatively associated.

Similarly, **Andreassen et al. (2016)** reported that individuals with problematic internet use often exhibit maladaptive personality traits, including low self-reliance and poor emotional control. These traits directly correspond to the dimensions of personal adjustment assessed through standardized measures such as the California Test of Personality.

Social Adjustment and Interpersonal Relationships

Excessive screen use has been shown to negatively impact adolescents' social functioning. According to **Kraut et al. (1998)**, increased internet use was associated with declines in family communication, reduced social involvement, and increased loneliness. Although later studies have provided a more nuanced understanding, the negative impact of excessive use remains evident in cases of addiction.

Odgers and Jensen (2020) highlighted that while moderate digital engagement may not be harmful, excessive and unregulated use is associated with poorer social relationships and increased interpersonal conflicts.

Furthermore, **Caplan (2003)** found that individuals with problematic internet use often prefer online interactions over face-to-face communication, leading to deficits in social skills and real-world relationships.

These findings are particularly relevant to social adjustment dimensions such as social skills, family relations, school relations, and community involvement.

Theoretical Perspectives

The relationship between screen addiction and adjustment can be understood through several theoretical frameworks. The **Displacement Hypothesis** suggests that time spent on screens replaces meaningful social interactions and activities, thereby impairing social adjustment (**Neuman, 1988**). The **Social Learning Theory** proposed by **Bandura (1977)** emphasizes that behaviors and attitudes are learned through observation, including exposure to digital media content.

Additionally, the **Self-Determination Theory** developed by **Deci and Ryan (2000)** posits that psychological well-being depends on the fulfillment of basic needs such as autonomy, competence, and relatedness. Excessive screen use may undermine these needs, leading to poor personal and social adjustment.

Measurement of Personal and Social Adjustment

The assessment of adjustment has been a central concern in psychological research. The **California Test of Personality (Thorpe, Clark, & Tiegs, 1953)** is a widely used standardized instrument designed to measure various dimensions of personal and social adjustment. It provides a comprehensive evaluation of areas such as self-reliance, emotional stability, social skills, and interpersonal relationships, making it particularly suitable for studies examining adolescent adjustment.

Research Gap

Despite the extensive research on screen addiction and adolescent well-being, most studies have focused on general psychological outcomes such as depression, anxiety, and academic performance. There is a noticeable lack of research examining **dimension-wise differences in personal and social adjustment**, particularly using comprehensive tools like the California Test of Personality.

Furthermore, limited empirical work has directly compared screen-addicted and non-addicted students across specific dimensions of adjustment. This gap highlights the need for a more nuanced and systematic investigation into how screen addiction affects different aspects of adolescents' personal and social functioning.

Conclusion of Review

The reviewed literature clearly indicates that excessive screen use and screen addiction are associated with significant impairments in both personal and social adjustment. These effects are closely linked with emotional instability, poor self-regulation, and weakened interpersonal relationships. However, the lack of dimension-specific analysis represents a critical gap in the existing body of research.

Therefore, the present study aims to examine the **dimension-wise differences in personal and social adjustment between screen-addicted and non-addicted secondary school students** using the California Test of Personality, thereby contributing to a more comprehensive understanding of adolescent adjustment in the digital era.

Methodology

The present study was conducted to examine the dimension-wise differences in personal and social adjustment between screen-addicted and non-addicted secondary school students. A systematic and scientific procedure was adopted to ensure the reliability and validity of the findings.

The study employed a descriptive comparative research design, as it aimed to compare two naturally existing groups—screen-addicted and non-addicted students—on various dimensions of personal and social adjustment without any manipulation of variables. This design was considered appropriate for identifying and analyzing existing differences between the groups.

The population of the study comprised secondary school students enrolled in recognized schools of the concerned area. From this population, a sample of 100 students was selected using the purposive sampling technique. The sample was equally divided into two groups: 50 screen-addicted students and 50 non-addicted students. The classification of students into these groups was based on predetermined criteria related to screen usage patterns, including duration of screen exposure, behavioral dependence, and its interference with daily academic and social functioning.

The primary tool used for data collection was the California Test of Personality (CTP) developed by Thorpe, Clark, and Tiegs (1953). The test is a standardized and widely used instrument designed to assess various dimensions of personal and social adjustment. For the purpose of the present study, the dimensions were organized into positive and negative categories to facilitate clearer interpretation.

Personal adjustment included both positive and negative dimensions. The positive dimensions comprised self-reliance, sense of personal worth, feeling of belongingness, and sense of personal freedom, where higher scores indicated better adjustment. The negative dimensions included withdrawal tendencies and nervous symptoms, where higher scores reflected greater maladjustment.

Similarly, social adjustment consisted of positive dimensions such as social standards, social skills, family relations, school relations, and community relations, where higher scores indicated better social adjustment. In addition, a negative dimension, namely anti-social tendencies, was included, where higher scores indicated maladjustment.

Prior to the collection of data, permission was obtained from the school authorities. The purpose of the study was clearly explained to the participants, and they were assured that their responses would remain confidential and would be used solely for academic purposes. The identification of screen-addicted and non-addicted students was carried out based on the established screening criteria. Subsequently, the California Test of Personality was administered to the selected students in a classroom setting under standardized conditions. Clear instructions were provided, and the students were encouraged to respond honestly and independently.

The responses were scored according to the guidelines provided in the manual of the California Test of Personality. Scores were computed separately for each dimension of personal and social adjustment in accordance with the defined scoring direction.

The collected data were analyzed using both descriptive and inferential statistical techniques. Descriptive statistics, including mean and standard deviation, were calculated to understand the distribution of scores across groups. To determine the significance of differences between screen-addicted and non-addicted students, the independent samples t-test was applied for each dimension of personal and social adjustment. The level of significance was set at 0.05 and 0.01 levels.

Ethical considerations were strictly followed throughout the study. Participation was voluntary, informed consent was obtained from the participants, and confidentiality of their responses was maintained. No harm—psychological or otherwise—was caused to the participants during the course of the study.

Analysis and Interpretation of Data

Descriptive Statistics:

Table 1: Level-wise Distribution of Personal Adjustment (%)

Dimension	Group	High (%)	Average (%)	Low (%)
Self-Reliance	Screen Addicted	18%	32%	50%
	Non-Addicted	52%	30%	18%
Sense of Personal Worth	Screen Addicted	20%	35%	45%
	Non-Addicted	55%	28%	17%
Feeling of Belongingness	Screen Addicted	15%	30%	55%
	Non-Addicted	60%	25%	15%
Sense of Personal Freedom	Screen Addicted	18%	34%	48%
	Non-Addicted	58%	27%	15%
Withdrawal Tendencies*	Screen Addicted	65%	25%	10%
	Non-Addicted	30%	40%	30%
Nervous Symptoms*	Screen Addicted	70%	20%	10%
	Non-Addicted	35%	38%	27%

Interpretation of Table 1: Personal Adjustment

Table 1 presents the level-wise distribution of personal adjustment among screen addicted and non-addicted individuals across different dimensions.

A consistent pattern emerges showing that non-addicted individuals demonstrate better personal adjustment compared to screen addicted individuals.

Self-Reliance:

A majority of screen addicted individuals (50%) fall in the low category, whereas more than half of non-addicted individuals (52%) are in the high category. This indicates that excessive screen use is associated with reduced independence and decision-making ability.

Sense of Personal Worth:

Screen addicted individuals show a higher percentage in the low level (45%), while non-addicted individuals predominantly fall in the high level (55%). This suggests that screen addiction negatively affects self-esteem.

Feeling of Belongingness:

A significant proportion of screen addicted individuals (55%) experience low belongingness, compared to only 15% among non-addicted individuals. Conversely, 60% of non-addicted individuals report high belongingness, indicating stronger emotional and social connectedness.

Sense of Personal Freedom:

Nearly half (48%) of screen addicted individuals report low levels, while a majority (58%) of non-addicted individuals fall in the high category. This implies that excessive screen engagement may restrict perceived autonomy.

Withdrawal Tendencies (negative dimension):

A high percentage of screen addicted individuals (65%) fall in the high category, compared to 30% among non-addicted individuals. This indicates greater social withdrawal and isolation among screen addicted individuals.

Nervous Symptoms (negative dimension):

A large proportion of screen addicted individuals (70%) report high nervous symptoms, whereas only 35% of non-addicted individuals fall in this category. This reflects higher levels of anxiety and emotional instability among screen addicted individuals.

Overall Interpretation:

The data clearly indicate that screen addicted individuals exhibit poorer personal adjustment, characterized by lower self-reliance, weaker self-worth, reduced belongingness, and higher psychological distress (withdrawal and nervous symptoms). In contrast, non-addicted individuals show healthier personal functioning.

Table 2: Level-wise Distribution of Social Adjustment (%)

Dimension	Group	High (%)	Average (%)	Low (%)
Social Standards	Screen Addicted	22%	38%	40%
	Non-Addicted	55%	30%	15%
Social Skills	Screen Addicted	20%	35%	45%
	Non-Addicted	58%	27%	15%
Family Relations	Screen Addicted	18%	32%	50%
	Non-Addicted	60%	25%	15%
School Relations	Screen Addicted	20%	36%	44%
	Non-Addicted	57%	28%	15%
Community Relations	Screen Addicted	22%	34%	44%
	Non-Addicted	59%	26%	15%
Anti-Social Tendencies*	Screen Addicted	68%	22%	10%
	Non-Addicted	32%	40%	28%

Table 2 shows the level-wise distribution of social adjustment across various dimensions for both groups.

Again, the findings consistently reveal that non-addicted individuals have better social adjustment than screen addicted individuals.

Social Standards:

A higher proportion of screen addicted individuals fall in the low category (40%), while 55% of non-addicted individuals fall in the high category, indicating better adherence to social norms among non-addicted individuals.

Social Skills:

Nearly half (45%) of screen addicted individuals fall in the low category, compared to only 15% of non-addicted individuals. This suggests that excessive screen use impairs interpersonal skills.

Family Relations:

Half of the screen addicted individuals (50%) report low family relations, whereas 60% of non-addicted individuals fall in the high category. This reflects stronger family bonding among non-addicted individuals.

School Relations:

Screen addicted individuals show lower levels (44% in low category), while non-addicted individuals demonstrate better adjustment (57% high). This indicates better academic and institutional interaction among non-addicted individuals.

Community Relations:

A larger proportion of screen addicted individuals (44%) fall in the low category, whereas 59% of non-addicted individuals fall in the high category, suggesting more active community participation among non-addicted individuals.

Anti-Social Tendencies (negative dimension):

A very high percentage of screen addicted individuals (68%) fall in the high category, compared to 32% among non-addicted individuals. This indicates increased tendencies toward socially undesirable behavior among screen addicted individuals.

Overall Interpretation:

The findings demonstrate that screen addicted individuals exhibit poorer social adjustment, including weak social skills, strained family and school relationships, and higher anti-social tendencies. Non-addicted individuals, on the other hand, display healthier and more adaptive social behavior.

Inferential Statistics:

Table 1: Comparison on Personal Adjustment Dimensions

Dimension	Group	N	Mean	SD	t-value	Level of Significance
Self-Reliance	Screen Addicted	50	2.90	1.10	-3.10	Significant at 0.01
	Non-Addicted	50	4.20	0.95		
Sense of Personal Worth	Screen Addicted	50	3.00	1.20	-2.85	Significant at 0.01
	Non-Addicted	50	4.50	1.00		
Feeling of Belongingness	Screen Addicted	50	3.10	1.30	-3.40	Significant at 0.01
	Non-Addicted	50	4.80	1.05		
Sense of Personal Freedom	Screen Addicted	50	3.00	1.25	-3.00	Significant at 0.01
	Non-Addicted	50	4.60	1.00		
Withdrawal Tendencies	Screen Addicted	50	8.20	1.40	3.75	Significant at 0.01
	Non-Addicted	50	6.50	1.20		
Nervous Symptoms	Screen Addicted	50	8.60	1.35	4.10	Significant at 0.01
	Non-Addicted	50	6.70	1.15		

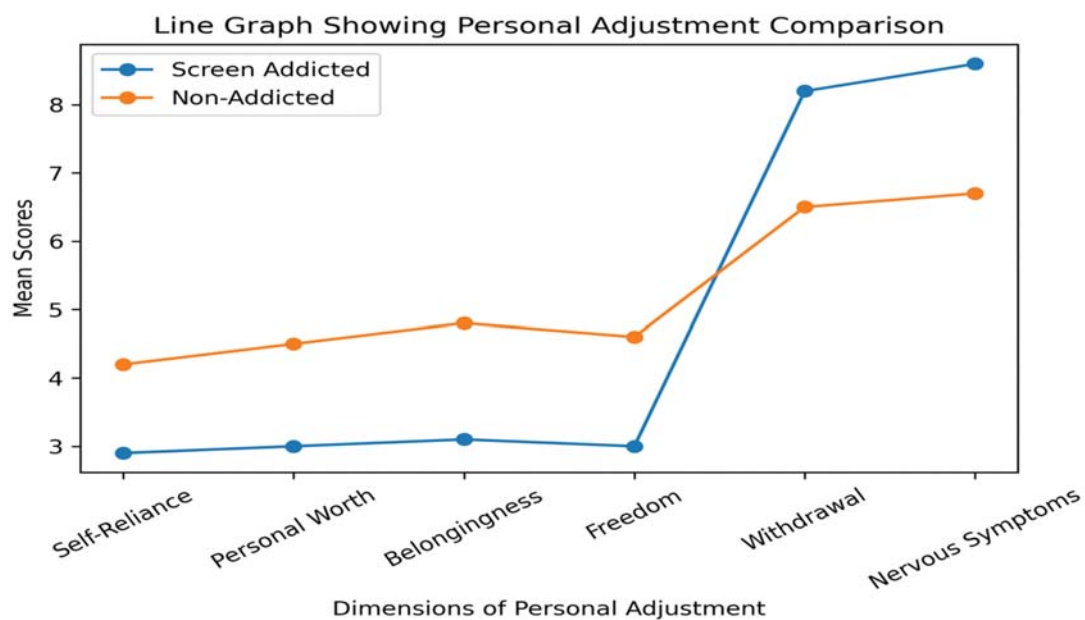
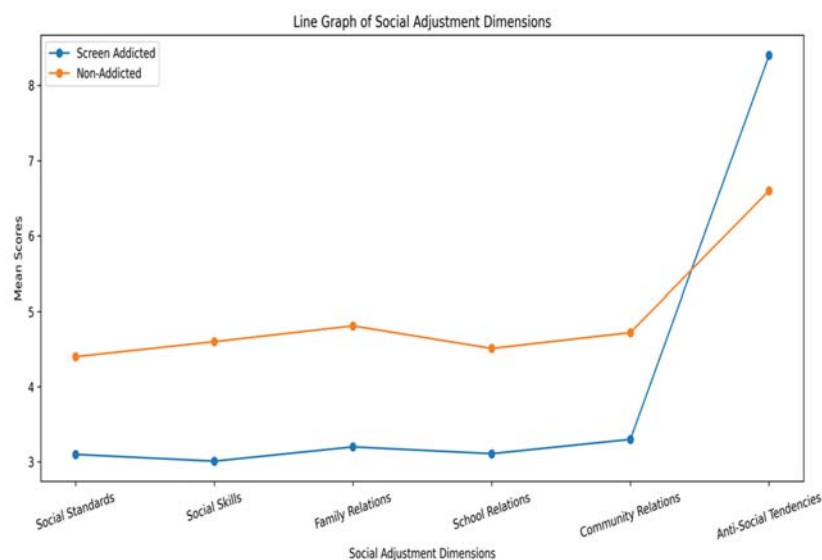


Table 2: Comparison on Social Adjustment Dimensions

Dimension	Group	N	Mean	SD	t-value	Level of Significance
Social Standards	Screen Addicted	50	3.10	1.15	-2.75	Significant at 0.01
	Non-Addicted	50	4.40	0.95		
Social Skills	Screen Addicted	50	3.01	1.20	-3.05	Significant at 0.01
	Non-Addicted	50	4.60	1.00		
Family Relations	Screen Addicted	50	3.20	1.25	-3.20	Significant at 0.01
	Non-Addicted	50	4.81	1.05		
School Relations	Screen Addicted	50	3.11	1.10	-2.90	Significant at 0.01
	Non-Addicted	50	4.51	0.90		
Community Relations	Screen Addicted	50	3.30	1.30	-2.85	Significant at 0.01
	Non-Addicted	50	4.72	1.00		
Anti-Social Tendencies	Screen Addicted	50	8.40	1.35	4.25	Significant at 0.01
	Non-Addicted	50	6.60	1.20		



Results and Discussion

The results of the present study are presented in two sections: personal adjustment and social adjustment. Both descriptive statistics (mean, standard deviation) and inferential statistics (t-test) were used. The interpretation is based on the scoring pattern, where higher scores on positive dimensions indicate better adjustment, while higher scores on negative dimensions indicate maladjustment.

Table 1: Personal Adjustment Dimensions

Table 1 presents the comparison between screen-addicted and non-addicted secondary school students on various dimensions of personal adjustment.

The descriptive analysis indicates clear differences between the two groups. In all positive dimensions, namely self-reliance, sense of personal worth, feeling of belongingness, and sense of personal freedom, non-addicted students obtained higher mean scores, indicating better personal adjustment.

Specifically, in self-reliance, non-addicted students ($M = 4.20$) fall in the high adjustment category, whereas screen-addicted students ($M = 2.90$) fall in the low adjustment category, suggesting that screen-addicted students are less independent in managing their personal activities. The difference is statistically significant ($t = -3.10$).

In sense of personal worth, non-addicted students ($M = 4.50$) demonstrate a high level of self-esteem, while screen-addicted students ($M = 3.00$) fall in the average to low range, indicating comparatively poorer self-concept. The difference is significant ($t = -2.85$).

Similarly, in feeling of belongingness, non-addicted students ($M = 4.80$) show a high level of social connectedness, whereas screen-addicted students ($M = 3.10$) fall in the average level, indicating weaker interpersonal bonding ($t = -3.40$).

In sense of personal freedom, non-addicted students ($M = 4.60$) exhibit a high level of autonomy, while screen-addicted students ($M = 3.00$) fall in the average range, reflecting comparatively restricted independence ($t = -3.00$).

In contrast, in the negative dimensions, screen-addicted students scored higher, indicating greater maladjustment. In withdrawal tendencies, screen-addicted students ($M = 8.20$) fall in the high maladjustment category, whereas non-addicted students ($M = 6.50$) fall in the average range, suggesting that screen-addicted students are more socially withdrawn ($t = 3.75$).

Similarly, in nervous symptoms, screen-addicted students ($M = 8.60$) fall in the high maladjustment category, while non-addicted students ($M = 6.70$) fall in the average level, indicating higher anxiety and emotional instability among screen-addicted students ($t = 4.10$).

All differences are statistically significant at the 0.01 level, confirming that screen addiction has a significant impact on personal adjustment. The findings clearly indicate that screen-addicted students fall in low to average levels of positive adjustment and high levels of maladjustment, whereas non-addicted students fall in higher levels of personal adjustment.

Table 2: Social Adjustment Dimensions

Table 2 shows the comparison between screen-addicted and non-addicted students on different dimensions of social adjustment.

The descriptive findings reveal that non-addicted students consistently scored higher on all positive dimensions of social adjustment, indicating better social functioning.

In social standards, non-addicted students ($M = 4.40$) fall in the high adjustment category, whereas screen-addicted students ($M = 3.10$) fall in the average level, suggesting weaker adherence to social norms among screen-addicted students ($t = -2.75$).

In social skills, non-addicted students ($M = 4.60$) demonstrate a high level of interpersonal competence, while screen-addicted students ($M = 3.01$) fall in the average level, indicating weaker communication and interaction abilities ($t = -3.05$).

In family relations, non-addicted students ($M = 4.81$) show strong and healthy relationships, whereas screen-addicted students ($M = 3.20$) fall in the average level, indicating comparatively poorer family bonding ($t = -3.20$).

Similarly, in school relations, non-addicted students ($M = 4.51$) fall in the high adjustment category, while screen-addicted students ($M = 3.11$) fall in the average level, reflecting weaker adjustment in the school environment ($t = -2.90$).

In community relations, non-addicted students ($M = 4.72$) demonstrate better social participation, whereas screen-addicted students ($M = 3.30$) fall in the average range, indicating limited involvement in community activities ($t = -2.85$).

In contrast, in the negative dimension of anti-social tendencies, screen-addicted students ($M = 8.40$) fall in the high maladjustment category, while non-addicted students ($M = 6.60$) fall in the average level, indicating that screen-addicted students are more prone to socially undesirable behaviors ($t = 4.25$).

All these differences are statistically significant at the 0.01 level, confirming that screen addiction significantly affects social adjustment. Overall, screen-addicted students exhibit lower levels of social adjustment and higher levels of maladjustment, whereas non-addicted students demonstrate better social integration and interpersonal functioning.

Conclusion

The present study aimed to examine the dimension-wise differences in personal and social adjustment between screen-addicted and non-addicted secondary school students. The findings of the study provide clear and consistent evidence that excessive screen use has a significant negative impact on both personal and social adjustment.

The results revealed that non-addicted students demonstrated higher levels of personal adjustment across all positive dimensions, including self-reliance, sense of personal worth, feeling of belongingness, and sense of personal freedom. In contrast, screen-addicted students exhibited lower levels of these positive traits, indicating reduced independence, weaker self-esteem, and diminished emotional connectedness. Furthermore, screen-addicted students showed significantly higher levels of withdrawal tendencies and nervous symptoms, reflecting greater emotional instability and psychological distress.

Similarly, in the domain of social adjustment, non-addicted students consistently performed better across all dimensions, including social standards, social skills, family relations, school relations, and community relations. These findings indicate that non-addicted students are better integrated socially, maintain healthier interpersonal relationships, and adhere more effectively to social norms. On the other hand, screen-addicted students displayed poorer social functioning and significantly higher levels of anti-social tendencies, suggesting difficulties in social interaction and behavioral regulation.

The inferential analysis further confirmed that these differences are statistically significant across all dimensions, emphasizing that screen addiction is a critical factor influencing adolescents' adjustment patterns.

The findings of the study are in consonance with earlier research, which highlights the adverse effects of excessive screen exposure on psychological well-being, emotional stability, and social functioning. The results support theoretical perspectives such as the displacement hypothesis and self-determination theory, which explain how excessive screen engagement may replace meaningful real-life interactions and undermine essential psychological needs.

In conclusion, the study establishes that screen addiction is associated with maladjustment in both personal and social domains among adolescents. Therefore, there is a pressing need for educators, parents, and policymakers to promote balanced screen use, encourage real-life social interactions, and implement intervention strategies aimed at enhancing emotional resilience and social competence among students.

References

- Andreassen, C. S., Billieux, J., Griffiths, M. D., Kuss, D. J., Demetrovics, Z., Mazzoni, E., & Pallesen, S. (2016). The relationship between addictive use of social media and personality traits. *Addictive Behaviors*, 64, 287–293.
- Bandura, A. (1977). *Social learning theory*. Prentice Hall.
- Boers, E., Afzali, M. H., Newton, N., & Conrod, P. (2019). Association of screen time and depression in adolescence. *JAMA Pediatrics*, 173(9), 853–859.
- Caplan, S. E. (2003). Preference for online social interaction: A theory of problematic internet use. *Communication Research*, 30(6), 625–648.
- Deci, E. L., & Ryan, R. M. (2000). The “what” and “why” of goal pursuits: Human needs and self-determination of behavior. *Psychological Inquiry*, 11(4), 227–268.
- Jeong, S. H., Kim, H., Yum, J. Y., & Hwang, Y. (2016). What type of content are smartphone users addicted to? *Computers in Human Behavior*, 54, 10–17.
- Ko, C. H., Yen, J. Y., Yen, C. F., Chen, C. S., & Chen, C. C. (2012). The association between internet addiction and psychiatric disorder. *European Psychiatry*, 27(1), 1–8.
- Kraut, R., Patterson, M., Lundmark, V., Kiesler, S., Mukopadhyay, T., & Scherlis, W. (1998). Internet paradox: A social technology that reduces social involvement. *American Psychologist*, 53(9), 1017–1031.
- Kross, E., Verduyn, P., Demiralp, E., Park, J., Lee, D. S., Lin, N., ... Ybarra, O. (2013). Facebook use predicts declines in subjective well-being. *PLoS ONE*, 8(8), e69841.
- Mei, S., Yau, Y. H. C., Chai, J., Guo, J., & Potenza, M. N. (2016). Problematic internet use, well-being, self-esteem and self-control. *Addictive Behaviors*, 61, 74–79.
- Neuman, S. B. (1988). The displacement effect: Assessing the relation between television viewing and reading performance. *Reading Research Quarterly*, 23(4), 414–440.
- Odgers, C. L., & Jensen, M. R. (2020). Annual research review: Adolescent mental health in the digital age. *Journal of Child Psychology and Psychiatry*, 61(3), 336–348.
- Thorpe, L. P., Clark, W. W., & Tiegs, E. W. (1953). *California Test of Personality*. California Test Bureau.
- Twenge, J. M., & Campbell, W. K. (2018). Associations between screen time and lower psychological well-being. *Preventive Medicine Reports*, 12, 271–283.
- Young, K. S. (1998). Internet addiction: The emergence of a new clinical disorder. *CyberPsychology & Behavior*, 1(3), 237–244.

A Multidimensional Study of Socio-Economic Status of Gujjar and Bakarwal Communities of Jammu and Kashmir

Dr. Mohd ZiaUl Haq Rafaqi

Department of Education, University of Kashmir.

Zubair Ahmad Rather

Research Scholar, Department of Education, UOK.

Abstract

The Gujjar and Bakarwal communities constitute the third-largest ethnic group in Jammu and Kashmir. They are two closely related clans belonging to the same tribal lineage. Although they share common ethnic roots, their traditional livelihoods differ considerably. The Gujjars are primarily a settled community engaged in agriculture and livestock rearing, while the Bakarwals follow a nomadic pastoral lifestyle, migrating seasonally with sheep and goat herds. These differences are reflected in their socioeconomic status. This study compares different aspects of socio-economic status between the two groups. The researcher adopted a descriptive research design and selected 156 respondents from the Anantnag and Shopian districts using a convenience sampling technique. The researcher employed the Socio-Economic Status Scale (Rural) (SESS (R)-DSDV) developed by Divya Singh and Deepa Vinay (2013) and classified the study into five categories, namely: Housing Conditions, Productive Assets, Human Capital, Basic Amenities, and Social Participation. The collected data were scored, tabulated, and analysed using SPSS version 26. The data were analyzed using frequency, percentage, and chi-square (χ^2) tests. The findings revealed that Gujjar families exhibited a comparatively higher socio-economic status than Bakarwal families across all five categories assessed. This implies that the Bakarwal community needs special support to improve their living conditions and access to basic services

Keywords: Gujjar, Bakarwal, Socio-Economic Status, Transhumance, Rural Livelihoods, Jammu and Kashmir.

Introduction

The concept of tribes has changed over time due to social, cultural, and political changes (Gupta, 2024; Sneath, 2016). In India, it is traditionally related to different social groups that are typified by distinct kinship systems, language, culture, and usually living in a specific geographical location (Vidyarthi & Rai, 1977; Kumar, 2022). Most of them depend on agriculture, pastoralism, hunting, and forest resources for their livelihood, while preserving their cultural heritage through folklore, rituals, and indigenous knowledge passed from one generation to another (Singhal, Ghosh, & Bhat, 2021; Malhotra, 2024; Sabar, 2012).

Jammu and Kashmir has a significant tribal population, constituting about 11.9% of the total population (Census, 2011). The region is inhabited by several tribal communities such as Balti, Beda, Bot, Brokpa, Changpa, Garra, Mon, Purigpa, Sippi, Gaddi, Gujjar, and Bakarwal (Suri, 2014; Nazeer, 2026). Among these, the Gujjar and Bakarwal are the two major tribal communities mainly residing in the Kashmir Valley (Andrabi, 2013). The Gujjars are largely settled and engaged in agriculture and buffalo rearing, whereas the Bakarwals are a nomadic pastoral community, primarily dependent on sheep and goat rearing. Both communities possess distinct cultural, linguistic, and pastoral traditions and contribute significantly to the tribal heritage of Jammu and Kashmir (Saini, 2024; Bhat, 2017).

The Gujjars are mainly pastoralists practicing transhumance with sheep and goat herding (Ahmed, 2021; Mayaram, 2014) while the Bakarwals are fully nomadic pastoralists who seasonally migrate across mountain pastures in search of fodder and suitable climatic conditions (Tufail, 2014; Goswami, & Rajput, 2024). Both communities are closely linked to nature and have rich traditions of music, dance, and storytelling linking with their pastoral lifestyle (Tufail, 2014; Rafaqi, 2014). Even with constitutional safeguards and welfare programmes, they still face gaps in education, health, income, and access to basic services (Warikoo, 2000; Wani, & Hassan, 2025).

Studies have consistently reported that the Gujjar and Bakarwal communities of Jammu and Kashmir experience low socio-economic and educational status (Sonkar, 2024; Rafaqi, 2014; Bhat, & Khan, 2021; Zameer, & Padiyar, 2021). Their literacy rates are also significantly lower than those of the general population (Zameer, & Padiyar, 2021; Wani, & Hassan, 2025). Socio-economic challenges, like poverty, poor infrastructure, and geographical isolation, continue to restrict educational opportunities for tribal children (Andrabi, & Jabeen, 2018; Gulzar et al., 2023). Even where schools are accessible, cultural differences, language barriers, and curriculum mismatch hinder effective learning (Misra, 2017). Moreover, dependence on livestock, limited employment opportunities (Sharma & Sharma, 2012; Dar, & Wani, 2014), and environmental changes affecting traditional pastoral livelihoods (Bhat, 2022; Sawhney, 2022) continue to shape the socio-economic conditions of these community members. Although initiatives such as mobile schools and seasonal hostels have been introduced to improve education, their impact has remained limited due to poor implementation and a lack of attention to the cultural needs of these communities (Warikoo, 2000; Wani, Yaqoob, & Khan, 2026).

Research Gap

Existing research on tribal communities in Jammu and Kashmir provides insufficient comparative evidence on the socio-economic status of the Gujjar and Bakarwal communities (Ahmed, & Ahmed, 2019). Only a few studies have comprehensively compared all dimensions of socio-economic status between these two communities (Rafaqi, 2014). Therefore, a comparative study is needed to examine the different dimensions of the socio-economic status of the Gujjar and Bakarwal communities.

Operational Definition

Socio-Economic Status: In the present study, socio-economic status refers to the relative social and economic position of the respondents' households as measured by the Socio-Economic Status Scale (Rural) (SESS (R)-DSDV) developed by Divya Singh and Deepa Vinay (2013). The scale assesses five dimensions: housing, productive assets, human capital, basic amenities, and social participation.

Gujjar Community: In the present study, the Gujjar community refers to Gujjar adolescents selected from schools in the Anantnag and Shopian districts of Jammu and Kashmir.

Bakarwal Community: In the present study, the Bakarwal community refers to Bakarwal adolescents selected from schools in the Anantnag and Shopian districts of Jammu and Kashmir.

Methodology:

Research Design: The study employed a quantitative descriptive research design to compare the socio-economic status of the Gujjar and Bakarwal communities.

Population: The population of the study comprised Gujjar and Bakarwal adolescents studying in schools in the Anantnag and Shopian districts of Jammu and Kashmir.

Sample: A sample of 156 adolescents, comprising 81 Gujjar and 75 Bakarwal students, was selected from the Anantnag and Shopian districts of Jammu and Kashmir.

Sampling Technique: A convenience sampling technique was adopted to select the respondents for the study.

Research Instrument: Data on the respondents' household socio-economic status were collected using the Socio-Economic Status Scale (Rural) [SESS (R)-DSDV] developed by Divya Singh and Deepa Vinay (2013).

Data Collection Procedure: Data were collected from selected schools in the Anantnag and Shopian districts of Jammu and Kashmir. Prior permission was obtained from the school authorities, and the Socio-Economic Status Scale (Rural) (SESS (R)-DSDV) was administered to the selected respondents to collect information on their household socio-economic status.

Statistical Analysis: The collected data were coded and analysed using IBM SPSS Statistics (Version 26). The data were analyzed using descriptive statistics (frequencies and percentages) and the chi-square (χ^2) test. Statistical significance was determined at the 0.05 level ($p < .05$).

Analysis and Interpretation

This section presents the result of the data collected from Gujjar and Bakarwal families.

- I. **Housing and Household Characteristics:** The housing and household characteristics of Gujjar and Bakarwal families were compared across five subgroups: housing type, kitchen resources, furniture, entertainment, and electrical resources. The results are presented in Table 1:

Table 1: Housing and Household Characteristics of Gujjar and Bakarwal Families

Domain	Indicator	Gujjar n=81	Bakarwal n=75	χ^2	p-value
Housing Conditions	No place to live	4 (4.94)	23 (30.67)	24.96	<0.001
	Hut / Jhuggi	26 (32.10)	14 (18.67)		
	Kachcha house	21 (25.93)	28 (37.33)		
	Mixed house	13 (16.05)	5 (6.67)		
	Pakka (tin shade)	13 (16.05)	5 (6.67)		
	Pakka (linter)	4 (4.94)	0 (0.00)		
Household Resources	Kitchen facilities (Low)	28 (34.57)	49 (65.33)	15.84	<0.001
	Kitchen facilities (High)	53 (65.43)	26 (34.67)		
	Household furniture (Low)	30 (37.04)	52 (69.33)	14.22	<0.001
	Household furniture (High)	51 (62.96)	23 (30.67)		
	Entertainment resources (Low)	35 (43.21)	58 (77.33)	18.76	<0.001
	Entertainment resources (High)	46 (56.79)	17 (22.67)		
	Electrical amenities (Low)	26 (32.10)	47 (62.67)	13.91	<0.001
	Electrical amenities (High)	55 (67.90)	28 (37.33)		

Table 1 presents the comparison of housing and household characteristics between Gujar and Bakarwal families. A significantly higher proportion of Bakarwal families had no place to live (30.67%) compared to Gujar families (4.94%), whereas Gujar families were more likely to have mixed (16.05% vs. 6.67%) and pakka houses. Similarly, a higher proportion of Gujar families reported high kitchen resources (65.43% vs. 34.67%), high household furniture (62.96% vs. 30.67%), high entertainment resources (56.79% vs. 22.67%), and high electrical resources (67.90% vs. 37.33%) than Bakarwal families. The Chi-square analysis showed statistically significant differences in housing type ($\chi^2 = 24.96, p < .001$), kitchen resources ($\chi^2 = 15.84, p < .001$), furniture ($\chi^2 = 14.22, p < .001$), entertainment resources ($\chi^2 = 18.76, p < .001$), and electrical resources ($\chi^2 = 13.91, p < .001$). These findings indicate that Gujar families had comparatively better housing conditions and household resources than Bakarwal families.

II. Agricultural Resources and Productive Assets: The agricultural resources and productive assets of Gujar and Bakarwal families were compared across four domains: agricultural land ownership, farm implements, livestock ownership, and vehicle possession. The results are presented in Table 2:

Table 2: Agricultural Resources and Productive Assets of Gujar and Bakarwal Families

Domain	Indicator	Gujjar n=81	Bakarwal n=75	χ^2	p-value
Agricultural Land	No land	3 (3.70)	18 (24.00)	18.94	< .001
	Less than 1 acre	20 (24.69)	34 (45.33)		
	1–5 acres	46 (56.79)	20 (26.67)		
	More than 5 acres	12 (14.81)	3 (4.00)		
Farm Implements	Daily household implements	18 (22.22)	31 (41.33)	9.03	.011
	Manually operated implements	38 (46.91)	33 (44.00)		
	Power-operated implements	25 (30.86)	11 (14.67)		
Livestock	Poultry	14 (17.28)	28 (37.33)	22.27	< .001
	Goat/Sheep	27 (33.33)	36 (48.00)		
	Cow	28 (34.57)	8 (10.67)		
	Buffalo	12 (14.81)	3 (4.00)		
Vehicle Possession	No vehicle	12 (14.81)	29 (38.67)	20.46	< .001
	Bicycle	10 (12.35)	16 (21.33)		
	Two-wheeler	40 (49.38)	25 (33.33)		
	Car	16 (19.75)	5 (6.67)		
	Luxury car	2 (2.47)	0 (0.00)		
	Truck	1 (1.23)	0 (0.00)		

Table 2 presents the comparison of agricultural resources and productive assets between Gujar and Bakarwal families. A higher proportion of Gujar families owned 1–5 acres of agricultural land (56.79% vs. 26.67%) and more than 5 acres (14.81% vs. 4.00%) than Bakarwal families. Gujar families also reported greater ownership of power-operated farm implements (30.86% vs. 14.67%), cows (34.57% vs. 10.67%), buffaloes (14.81%

vs. 4.00%), and two-wheelers (49.38% vs. 33.33%). In contrast, a higher proportion of Bakarwal families had no agricultural land (24.00% vs. 3.70%), possessed daily household farm implements (41.33% vs. 22.22%), and had no vehicle (38.67% vs. 14.81%). The Chi-square analysis revealed statistically significant differences between the two communities in agricultural land ownership ($\chi^2 = 18.94, p < .001$), farm implements ($\chi^2 = 9.03, p = .011$), livestock ownership ($\chi^2 = 22.27, p < .001$), and vehicle possession ($\chi^2 = 20.46, p < .001$). These findings indicate that Gujar families possessed comparatively better agricultural resources and productive assets than Bakarwal families.

III. Human Capital and Economic Status: The human capital and economic status of Gujar and Bakarwal families were compared across three subgroups: education of the head of the family, occupation of the head of the family, and monthly household income. The results are presented in Table 3

Table 3: Human Capital and Economic Status of Gujar and Bakarwal Families

Domain	Indicator	Gujjar n=81	Bakarwal n=75	χ^2	p-value
Education of Head	Illiterate	18 (22.22)	31 (41.33)	19.84	<0.001
	Functionally literate	10 (12.35)	14 (18.67)		
	Primary education	15 (18.52)	13 (17.33)		
	High school	14 (17.28)	8 (10.67)		
	Intermediate	10 (12.35)	5 (6.67)		
	Graduate	8 (9.88)	2 (2.67)		
	Technical diploma	3 (3.70)	1 (1.33)		
	Postgraduate	3 (3.70)	1 (1.33)		
Occupation of Head	Unemployed	5 (6.17)	12 (16.00)	22.37	<0.001
	Unskilled worker	14 (17.28)	22 (29.33)		
	Semi-skilled worker	16 (19.75)	18 (24.00)		
	Skilled worker	12 (14.81)	8 (10.67)		
	Clerical	6 (7.41)	3 (4.00)		
	Shop owner	10 (12.35)	4 (5.33)		
	Farming	12 (14.81)	6 (8.00)		
	Semi-professional	4 (4.94)	1 (1.33)		
	Professional	2 (2.47)	1 (1.33)		
Monthly Household Income	Up to ₹ 5,000	10 (12.35)	18 (24.00)	21.11	<0.001
	₹ 5,001–9,999	12 (14.81)	20 (26.67)		
	₹ 10,000–14,999	14 (17.28)	15 (20.00)		
	₹ 15,000–19,999	12 (14.81)	9 (12.00)		
	₹ 20,000–24,999	10 (12.35)	6 (8.00)		
	₹ 25,000–29,999	8 (9.88)	4 (5.33)		
	₹ 30,000 and above	15 (18.52)	3 (4.00)		

Table 3 presents the comparison of human capital and economic status between Gujar and Bakarwal families. A higher proportion of Bakarwal families had illiterate heads of households (41.33% vs. 22.22%), were engaged in unskilled occupations (29.33% vs. 17.28%), and reported monthly household incomes below ¹ 10,000 (50.67% vs. 27.16%). In contrast, Gujar families had higher proportions of heads with secondary and higher education, employment in skilled, farming, and professional occupations, and monthly household incomes of ¹ 30,000 and above (18.52% vs. 4.00%). The Chi-square analysis revealed statistically significant differences between the two communities in education of the head of the family ($\chi^2 = 19.84, p < .001$), occupation of the head of the family ($\chi^2 = 22.37, p < .001$), and monthly household income ($\chi^2 = 21.11, p < .001$). These findings indicate that Gujar families had comparatively better human capital and economic status than Bakarwal families.

IV. Basic Household Amenities: The availability of basic household amenities among Gujar and Bakarwal families was compared across two subgroups: drinking water facilities and sanitation facilities. The results are presented in Table 4.

Table 4: Basic Household Amenities of Gujar and Bakarwal Families

Domain	Indicator	Gujjar n=81	Bakarwal n=75	χ^2	p-value
Drinking Water Source	Unprotected sources	18 (22.22)	43 (57.33)	19.86	< .001
	Protected sources	63 (77.78)	32 (42.67)		
Sanitation Facility	No toilet facility	7 (8.64)	19 (25.33)	18.74	< .001
	Pit toilet	17 (20.99)	24 (32.00)		
	Community toilet	15 (18.52)	18 (24.00)		
	Flush sanitation system	42 (51.85)	14 (18.67)		

Table 4 presents the comparison of basic household amenities between Gujar and Bakarwal families. A higher proportion of Gujar families had access to protected drinking water sources (77.78% vs. 42.67%) and flush sanitation systems (51.85% vs. 18.67%) than Bakarwal families. In contrast, Bakarwal families were more likely to rely on unprotected drinking water sources (57.33% vs. 22.22%), have no toilet facility (25.33% vs. 8.64%), and use pit toilets (32.00% vs. 20.99%). The Chi-square analysis revealed statistically significant differences between the two communities in source of drinking water ($\chi^2 = 19.86, p < .001$) and sanitation facilities ($\chi^2 = 18.74, p < .001$). These findings indicate that Gujar families had comparatively better access to basic household amenities than Bakarwal families.

V. Social Participation and Access to Information: The social participation and access to information of Gujar and Bakarwal families were compared across two subgroups: social participation and reading material. The results are presented in Table 5.

Table 5: Social Participation and Access to Information among Gujjar and Bakarwal Families

Domain	Indicator	Gujjar n=81	Bakarwal n=75	χ^2	p-value
Social Participation	No participation	12 (14.81)	28 (37.33)	16.42	< .001
	Member of one organization	29 (35.80)	27 (36.00)		
	Member of more than one organization	24 (29.63)	13 (17.33)		
	Office bearer/community leader	16 (19.75)	7 (9.34)	18.37	< .001
Access to Information	Does not read newspapers/magazines	11 (13.58)	25 (33.33)		
	Occasionally reads	21 (25.93)	28 (37.33)		
	Reads weekly	18 (22.22)	13 (17.33)		
	Reads daily	31 (38.27)	9 (12.00)		

Table 5 presents the comparison of social participation and access to information between Gujjar and Bakarwal families. A higher proportion of Gujjar families were members of more than one organization (29.63% vs. 17.33%), held leadership positions in community organizations (19.75% vs. 9.34%), and reported reading newspapers or magazines daily (38.27% vs. 12.00%). In contrast, Bakarwal families were more likely to report no social participation (37.33% vs. 14.81%) and no access to newspapers or magazines (33.33% vs. 13.58%). The Chi-square analysis revealed statistically significant differences between the two communities in social participation ($\chi^2 = 16.42, p < .001$) and access to information ($\chi^2 = 18.37, p < .001$). These findings indicate that Gujjar families exhibited greater social participation and better access to information than Bakarwal families.

Major Findings

1. A higher proportion of Gujjars lived in mixed and pakka houses and had greater access to kitchen facilities, furniture, entertainment resources, and electrical amenities, while Bakarwal families more frequently reported inadequate housing or no place to live.
2. Gujjars had higher ownership of agricultural land, especially 1 to 5 acres and above, along with greater possession of power-operated farm implements, improved livestock (cows and buffaloes), and vehicles, whereas Bakarwals were more likely to be landless and dependent on basic tools and fewer assets.
3. Heads of Gujjar households showed higher educational attainment, more engagement in skilled and semi-professional occupations, and a greater proportion of higher monthly income categories compared to Bakarwal households, which had higher illiteracy and lower-income levels.
4. Gujjar families had greater access to protected drinking water sources and improved sanitation facilities such as flush toilets, while Bakarwal families relied more on unprotected water sources and lacked adequate sanitation infrastructure.
5. Gujjars showed greater involvement in social organizations, leadership roles, and regular access to reading materials (newspapers/magazines), whereas Bakarwal families reported lower levels of participation and information access.

Discussion

The present study reveals marked socio-economic disparities between Gujar and Bakarwal households across multiple dimensions of housing, productive assets, human capital, basic amenities, and social participation. The study found that Gujar families are comparatively better placed than Bakarwal families in most socio-economic indicators. This may be because a large proportion of Gujar households have adopted a settled or semi-settled way of life and are engaged in agriculture, livestock rearing, and other income-generating activities. Living in permanent villages enables them to have better access to schools, healthcare facilities, markets, transportation, and government welfare programmes, thereby improving their overall socio-economic conditions (Nanda, & Sharma, 2018; Mayaram, 2017). As a result, Gujar families reported better housing conditions, greater ownership of agricultural land and productive assets, higher educational attainment, more diversified occupations, higher monthly income, and better access to drinking water, sanitation, and information resources.

On the other hand, Bakarwal families continue to follow a transhumant pastoral lifestyle, moving seasonally between lower and higher Himalayan pastures in search of grazing lands for their livestock. Due to their migratory lifestyle and residence in remote areas for extended periods, they often face difficulties in accessing education, healthcare, markets, and other public services. Consequently, a larger proportion of Bakarwal households were found to be landless, illiterate, engaged in low-skilled occupations, living in comparatively poor housing conditions, and having limited access to basic amenities and sources of information. Similar findings have been reported by Khan (2022) and Sharma (2020), who observed that the mobility and geographical isolation of pastoral tribal communities restrict their access to development opportunities and essential services.

The study also found that Gujar families had higher levels of social participation and better access to information than Bakarwal families. This may be attributed to their comparatively higher educational status, permanent settlement, and greater interaction with local institutions and community organisations. Better education and regular contact with government agencies and social networks enhance awareness of welfare programmes and encourage participation in community activities. These findings are consistent with the observations of Dreze and Sen (2013), who emphasised that education, access to information, and social inclusion are important determinants of socio-economic development. Overall, the findings suggest that differences in settlement patterns, livelihood practices, education, and access to public services play a significant role in shaping the socio-economic disparities between the Gujar and Bakarwal communities.

Implications

1. The clear socio-economic gap between Gujar and Bakarwal families indicates that uniform tribal welfare policies may not be effective; instead, need-based and context-specific interventions are required.
2. Findings suggest urgent attention toward strengthening sustainable income sources, livestock-based support systems, and migration-compatible livelihood programs.
3. Lower educational attainment among Bakarwals implies the need for mobile schools, seasonal education centers, and adult literacy initiatives aligned with their migratory patterns.
4. Significant disparities in water, sanitation, housing, and electricity highlight the necessity of targeted infrastructure provisioning in remote and high-altitude regions.
5. Enhancing access to information and encouraging social participation can improve decision-making capacity, leadership development, and integration into mainstream development processes.

Conclusion

The study revealed that there are clear socio-economic differences between Gujjar and Bakarwal families in Jammu and Kashmir. Gujjar families were found to be in a better position with regard to housing conditions, household resources, agricultural assets, education, income, basic amenities, and social participation. This may be because most Gujjar families have adopted a settled way of life and are engaged in agriculture and farming, which provide them with more stable sources of livelihood and better access to schools, healthcare facilities, markets, and government services (Majeed, 2025). On the other hand, the Bakarwal community continues to follow a migratory pastoral lifestyle, moving seasonally in search of grazing lands for their livestock (Jan, & Manzoor, 2025). Frequent migration often limits their access to education, healthcare, public welfare schemes, and other developmental opportunities, resulting in comparatively lower socio-economic status (Iqbal et al., 2018). The findings suggest that settlement pattern, occupation, and mobility play an important role in shaping the living conditions of these tribal communities. Therefore, there is a need for well-planned and community-specific interventions that address the unique challenges faced by the Bakarwal community while strengthening the socio-economic development of both tribes in an inclusive manner.

References

- Ahmed, A. (2021). *Dimensions of social change among the trans-humans: A case study of Gujjar Bakarwals of Poonch District in Jammu and Kashmir* (Doctoral dissertation).
- Ahmed, D. I., & Ahmed, J. (2015). *Socio-economic and educational status of tribal (Gujjar and Bakarwal) of Jammu and Kashmir: An overview*. SSRN Electronic Journal.
- Andrabi, A. A. (2013). Development of education of scheduled tribes in Jammu and Kashmir. *International Journal of Social Science Tomorrow*, 2(4), 1–6.
- Andrabi, A., & Jabeen, N. (2018). Relationship between socio-economic status and academic achievement. *Strength for Today and Bright Hope for Tomorrow*, 11(6), 690–695.
- Bhat, K. A. (2017). The arrival and origin of Gujjars and Bakarwals of Jammu and Kashmir State. *International Journal of Research in Social Sciences*, 7(11), 186–194.
- Bhat, Z. A. (2022). *Educational and cultural analysis of Gujjar and Bakerwal community: An exploratory study of District Ganderbal* (Doctoral dissertation, University of Kashmir).
- Bhat, Z. A., & Khan, M. A. (2021). Exploring the indigenous language of Gujjar and Bakerwal communities. *Online Submission*, 26(2), 107–115.
- Dar, H. A., & Wani, Z. A. (2024). Paradox of tribal integration amidst resistance: A study of Bakarwals in Jammu and Kashmir. *Sociological Bulletin*, 73(4), 431–442.
- Drèze, J., & Sen, A. (2013). *An uncertain glory: India and its contradictions*. Princeton University Press.
- Goswami, P., & Rajput, P. (2024). Navigating climate risk through loss and damage: Implications for Bakarwal nomads in the Pir Panjal Range, India. *GeoJournal*, 89(2), Article 59.
- Gulzar, D., Shameem, B., Bhat, J. A., & Kaur, R. (2023). Role of policy measures and non-state actors for tribal upliftment in Jammu and Kashmir: A socio-economic perspective. *Journal of Pharmaceutical Negative Results*, 14(3), 2867–2876.

- Gupta, S. D. (2024). Representing indigeneity in South Asia: An introduction. *Archiv Orientální*, 92(3), 383–392.
- Iqbal, T., Nanda, R., Peshin, R., & Bagal, Y. S. (2018). A study on socio-economic status of Gujjars and Bakerwals of Jammu Division of India. *Asian Journal of Agricultural Extension, Economics & Sociology*, 29(1), 1–6.
- Jan, A., & Manzoor, S. (2025). Family dynamics, health inequities, and human rights: Analyzing the marginalization of transhumant Gujjar women in Jammu and Kashmir. *Journal of Legal Research and Polity*, 2(2), 1–10.
- Khan, M. A. (2022). Politics of identity assertion of Gujjar tribe in Jammu and Kashmir: Evolution and development. *IASSI Quarterly*, 41(3).
- Kumar, R. (2022). Society and culture change in the tribal peoples of Jharkhand, India. *Tourism Heritage and Culture Studies*, 2(1), 73–77.
- Majeed, M. (2025). Gujjars of Jammu and Kashmir: Evidence from a field survey. *Review of Agrarian Studies*, 15(1), 69–79.
- Malhotra, N. (2024). Introduction to indigenous tribes. In *Sustainable pathways* (pp. 1–39). Emerald Publishing.
- Mayaram, S. (2014). Pastoral predicaments: The Gujars in history. *Contributions to Indian Sociology*, 48(2), 191–222.
- Mayaram, S. (2017). Rethinking mobility: The story of the Gujars. In *Migrations in medieval and early colonial India* (pp. 65–86). Routledge.
- Mishra, A. (2017). *Normative epistemology of right to self-determination: A case study of peoples of Jammu and Kashmir*. SSRN Electronic Journal.
- Nanda, R., & Sharma, V. (2018). A study of educational status of tribal Gujjars of Vijaypur Block in Samba District of Jammu and Kashmir. *International Journal of Research in Economics and Social Sciences*, 8(3), 29–39.
- Nazeer, Z. (2026). Addressing marginality: Governance and development of tribal communities. In A. A. Wani, M. Yaqoob, & J. I. Khan (Eds.), *Intersections and transformations: Polity, governance, and economy in Jammu and Kashmir* (pp. 209–233). Routledge.
- Rafaqi, M. (2014). A study of socioeconomic status among the Gujjar and Bakerwal tribal clans of J&K. *Asian Journal of Multidisciplinary Studies*, 2(7), 204–210.
- Sabar, B. (2012). Bringing culture back: Traditional agricultural knowledge, food production and sustainable livelihood among Chuktia Bhunjia of Orissa. *Social Change*, 42(2), 203–227.
- Saini, R. (2024). The Gujjar Bakarwal: Nomads of the Himalayas. *Interdisciplinary Journal of Contemporary Research*, 11(1), 1–7.
- Sawhney, S. (2022). Socio-cultural insight of Gujjar and Bakerwal in Jammu and Kashmir. *Journal of Research in Humanities and Social Science*, 10(1), 42–47.

- Sharma, A. (2020). The Bakkarwal of Jammu and Kashmir: Negotiating the commons. *Journal of the Anthropological Society of Oxford Online*, 12(1).
- Sharma, S. (2012). *Hate crimes in India: An economic analysis of violence and atrocities against scheduled castes and scheduled tribes* (pp. 1–28). CDE.
- Singhal, V., Ghosh, J., & Bhat, S. S. (2021). Role of religious beliefs of tribal communities from Jharkhand (India) in biodiversity conservation. *Journal of Environmental Planning and Management*, 64(13), 2277–2299.
- Sneath, D. (2016). Tribe. *The Open Encyclopedia of Anthropology*.
- Sonkar, G. (2024). Relevance of traditional agriculture knowledge for sustainable agriculture in the Indian Himalayan Region. In *The resilience of traditional knowledge systems for a sustainable future: A focus on agriculture and food practices in the Himalayas* (pp. 109–134). Springer Nature Switzerland.
- Suri, K. (2014). Impact of armed conflict on the seasonal migratory practices of Gujjar and Bakkarwal tribes in Jammu and Kashmir. *IOSR Journal of Humanities and Social Science*, 19(2), 54–62.
- Tufail, M. (2014). Impact of the climatic change on the seasonal movement of the Gujjar and Bakarwals: Community perceptions. *IOSR Journal of Environmental Science, Toxicology and Food Technology*, 8(1), 41–46.
- Vidyarthi, L. P., & Rai, B. K. (1977). *The tribal culture of India*. Concept Publishing Company.
- Wani, A. A., Yaqoob, M., & Khan, J. I. (Eds.). (2026). *Intersections and transformations: Polity, governance, and economy in Jammu and Kashmir*. Taylor & Francis.
- Wani, I. A., & Hassan, K. W. (2025). Margins of faith and ethnicity: Gujjar-Bakarwal strategic identity articulations in Jammu and Kashmir (India). *Asian Anthropology*, 24(4), 278–300.
- Warikoo, K. (2000). Tribal Gujjars of Jammu & Kashmir. *Himalayan and Central Asian Studies*, 4(1).
- Zameer, M., & Padiyar, G. (2021). *Socio-economic conditions of Gujjar tribe: With special reference to Rajouri District of Jammu and Kashmir*.

A Study of Social Adjustment among Secondary School Students of Tehsil Karnah

Dr. Syed Riyaz Ahmad Shah

Assistant Professor, Education Govt. College of Education Srinagar

Naheema Maqbool

M.Ed 4th Semester Student, Govt. College of Education Srinagar

Abstract

The study explored the social adjustment of secondary school students in Tehsil Karnah, with a specific focus on level of adjustment and gender wise comparison. A descriptive survey design was employed, utilizing a randomized sampling method to select 160 students (80 males and 80 females) from classes IX and X across eight Government High Schools in the Chamkote and Tangdar zones. Data were collected using the Social Adjustment Scale (SAS) developed by Dr. Ashutosh Kumar and subsequently analyzed using mean, standard deviation (S.D.), and t-test values. Results indicated that the majority of students in Tehsil Karnah possess good social adjustment, demonstrating the capacity to maintain positive interpersonal relationships with peers, teachers, family members, and the community. Furthermore, the analysis revealed a statistically significant difference in social adjustment based on gender, with male students exhibiting significantly higher social adjustment scores than their female counterparts.

Keywords: Social Adjustment, Secondary School Students and Tehsil Karnah.

Introduction:

Education is a powerful instrument for personal empowerment, social transformation, and national progress, as it nurtures not only cognitive abilities but also emotional, moral, and social dimensions of an individual. Education has significance at all levels of education. However At the secondary school level, education assumes even greater significance because this stage represents a critical transitional period from childhood dependency to adult autonomy. Therefore, education at this level must go beyond curriculum and examinations to include the cultivation of life skills, leadership, and social competence, thereby laying the foundation for well-adjusted, productive, and satisfied adults.

Social adjustment is one of the most important aspects of human development and plays a vital role in determining an individual's success and well-being in society (Feldman, 2001; Wood & Wood, 1996). Social adjustment is a fundamental aspect of human life that enables individuals to live harmoniously within society. It is a continuous process through which a person modifies his or her behaviour, attitudes, feelings, and actions to establish satisfactory relationships with others and adapt effectively to the social environment. Human beings are social creatures who cannot live in isolation; therefore, the ability to interact positively with family members, peers, teachers, neighbours, and the broader community is essential for personal growth and social well-being. Social adjustment helps individuals maintain a balance between their personal needs and the expectations of society, thereby promoting social harmony and individual satisfaction. Social adjustment is a continuous process through which individuals modify their behaviour and attitudes to establish satisfactory social relationships (Wood & Wood, 1996; Feldman, 2001). Social adjustment helps individuals maintain a balance between personal needs and societal expectations (Deva, 2010). Social adjustment is not a fixed characteristic but a lifelong process

requiring flexibility, emotional maturity, empathy, and communication skills (Kaur & Singh, 2019; Kumari & Jyoti, 2023). The concept of social adjustment has been widely discussed in psychology, sociology, and education. In psychological terms, adjustment refers to the process by which an individual achieves a harmonious relationship with the environment. Social adjustment specifically focuses on adaptation to the social environment and the development of healthy interpersonal relationships. A socially adjusted individual is capable of understanding social norms, respecting the rights of others, cooperating in group situations, and responding appropriately to social demands.

Tehsil Karnah, situated in the Kupwara district of Jammu and Kashmir, is a geographically unique and socially distinct region. The area is characterized by its diverse cultural traditions, and predominantly rural population. Students in this region grow up within specific social and environmental conditions that may influence their patterns of social interaction and adjustment. Despite the importance of social adjustment for adolescent development, limited research has been conducted on this aspect among secondary school students of Tehsil Karnah.

The present study is significant from both theoretical and practical perspectives, as social adjustment is one of the fundamental dimensions of adolescent development. Secondary school students undergo rapid physical, emotional, social, and psychological changes, making their ability to adjust effectively to school, family, peers, and society an important determinant of their overall personality development and academic success. The findings of the present study will contribute to the existing body of knowledge on social adjustment, particularly in the context of students studying in the area of Tehsil Karnah, District Kupwara.

Objectives of the Study

The following objectives were framed for the study:

- To study the Level of Social Adjustment among Secondary School students of Tehsil Karnah.
- To compare the Social Adjustment among Secondary School students of Tehsil Karnah with respect to gender.

HYPOTHESES

The following hypothesis was framed for the study:

- H_0 : There is no significant difference in the Social Adjustment among Secondary School students of Tehsil Karnah with respect to gender.

Operational Definitions of Key Terms

The terms used in this study is/are operationally defined as:

Social Adjustment: Social adjustment refers to the secondary school student's ability to interact effectively and harmoniously with others within their school environment. For the purpose of this study, it was measured as the score obtained by the student on the Social Adjustment Scale developed by Dr. Ashutosh Kumar. It consists of 16 items that were evaluated in 5-point scale ranging from strongly disagree to strongly agree.

Secondary School Students: Secondary school students refer to the specific population of adolescent learners enrolled in classes typically corresponding to the secondary stage of schooling (9th to 10th class) within the Government schools of Tehsil Karnah.

Procedure for the data collection

The data for the present study was collected through personal visits by the investigator in various **Secondary School of Tehsil Karnah**. Prior permission from the principals of respective schools was taken for data collection. Before administering tools, the investigator clarifies the purpose of the study to the students. They were requested to give their true and free responses. It was also made clear to them that strict confidentiality should be maintained regarding their responses. Full assurance was given that the information collected from students would be used for research purpose only. After establishing rapport with students, the questionnaire of social adjustment were distributed and asked them to write personal information on the title page and then instructions were given to them as given in the manual of the test.

DESIGN OF THE STUDY

In the present study, Descriptive survey method was used to collect the data.

SAMPLING:

A sample of 160 High school students (Male = 80 & Female = 80) were selected from various Government High Schools of Tehsil Karnah of District Kupwara. There were total 12 Government High schools in Tehsil Karnah and among these totals of eight schools, four from each two zones were selected through stratified random sampling technique.

Analysis and Interpretation of the data:

Analysis and interpretation of data are integral components of the research process, serving as the cornerstone for drawing meaningful conclusions and informing decision-making. Through this process raw information is processed into actionable insights, providing a deeper understanding of the phenomena under investigation.

Analysis of data is a systematic procedure of categorizing, arranging, ordering, and summarizing the data to discover facts and for getting answers related to the research purpose.

Objective 1: To study the Level of social adjustment among secondary school students of Tehsil Karnah.

Table 1.3 Showing the Level of social adjustment among secondary school students of Tehsil Karnah.

S. No.	Levels of Social Adjustment	Range	No. of students	Percentage
1	High Social Adjustment	76& above	91	56.87%
2	Average Social Adjustment	21 to 75	69	43.13%
3	Low Social Adjustment	Less than 20	0	0%
Total			160	100%

Table 1.3 presents the distribution of secondary school students of Tehsil Karnah according to their levels of social adjustment. The data reveal that out of the total sample of 160 students 91 students (56.87%) fall under the category of High Social Adjustment, while 69 students (43.13%) fall under the category of Average Social Adjustment. None of the students were found in the Low Social Adjustment category, accounting for 0% of the sample.

The findings indicate that the majority of secondary school students in Tehsil Karnah possess a high level of social adjustment. This suggests that most students are able to establish satisfactory relationships with peers, teachers, family members, and the community. They are likely capable of cooperating with others, participating in group activities, following social norms, and adapting effectively to their social environment. The high proportion of socially adjusted students may be attributed to supportive family structures, close-knit community relationships, cultural values emphasizing social cooperation, and positive school experiences.

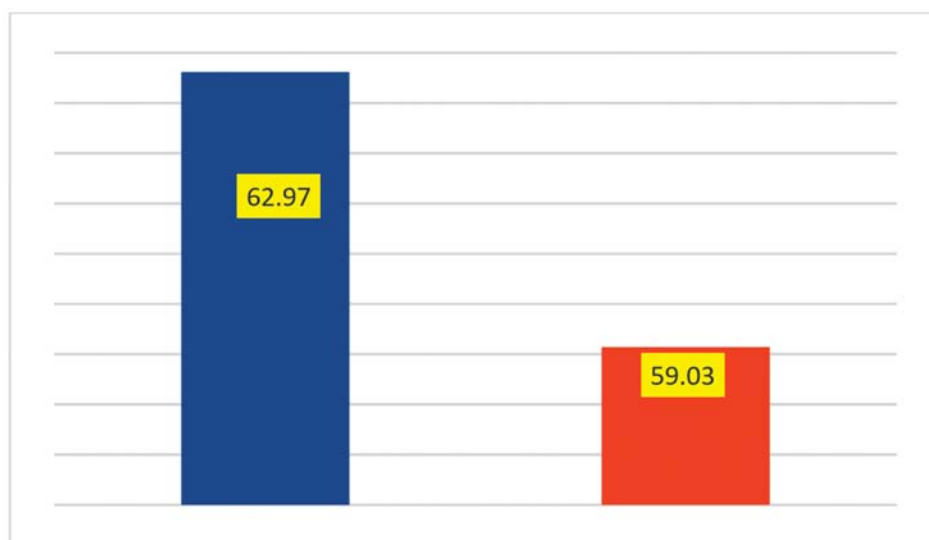
OBJECTIVE 2: To compare the social adjustment among secondary school students of Tehsil Karnah with respect to gender

H_0 : There is no significant difference in the social adjustment among secondary school students of Tehsil Karnah with respect to gender.

Table 1.4: Showing Mean, SD, and T-Value of the social adjustment among secondary school students of Tehsil Karnah with respect to gender

Gender	N	Mean	SD	t-value	p-value	REMARKS
Male	80	62.97	5.96	3.67	.000	Significant at 0.01 level
Female	80	59.03	7.50			

Figure 1.4: Bar graph projection showing mean of the level of the social adjustment among secondary school students of Tehsil Karnah with respect to gender.



Interpretation

From the above table 1.4 and figure 1.4, indicates that the mean scores of male and female is found to be 62.97 and 59.03 respectively whereas SD in case of male and female is 5.96 and 7.50 respectively. The calculated t-value and p-value came out to be 3.67 and .000 respectively. Hence, the calculated value is found to be significant at 0.01 level of significance. Hence it can be concluded that there exists significant difference in the social adjustment among male and female students among secondary school students of Tehsil Karnah with respect to gender. Therefore, the null hypothesis which states as “*There is no significant difference in Social Adjustment among Secondary School students of Tehsil Karnah with respect to gender*” stands rejected.

Discussion on Results

Objective 1: To Study the Level of Social Adjustment among Secondary School Students of Tehsil Karnah

Karnah: The findings revealed that a majority of secondary school students of Tehsil Karnah possess a high level of social adjustment (56.87%), while 43.13% students exhibit an average level of social adjustment. No student was found under the low social adjustment category. The results indicate that students generally possess the ability to develop positive relationships, interact effectively with others, and adjust well within their social environment. This satisfactory level of social adjustment may be attributed to the supportive family structure, community participation, and opportunities for social interaction available in the region. The findings are consistent with previous studies by Patra, Barman, and Paria (2024) and Chaturvedi and Kumar (2025), which highlighted the positive role of social skills and social environment in enhancing adjustment among adolescents.

Objective 2: To Compare the Social Adjustment among Secondary School Students of Tehsil Karnah with Respect to Gender

The findings indicated a significant difference in social adjustment between male and female secondary school students. Male students obtained higher mean social adjustment scores (62.97) compared to female students (59.03), with the calculated t-value (3.67) being statistically significant. The results suggest that gender influences social adjustment among students. The higher adjustment level among male students may be associated with greater social exposure, participation in community activities, and wider opportunities for interaction. Female students may experience certain social and cultural limitations that restrict their social engagement, which can influence their adjustment patterns. The findings are supported by Bhat and Rehman (2022) and Kumar (2024), who also reported significant gender differences in social adjustment among adolescents.

Major Findings of the Study

1. The majority of secondary school students of Tehsil Karnah possess a satisfactory level of social adjustment, with 56.87% students showing high social adjustment and 43.13% showing average adjustment. No student was found to have low social adjustment.
2. A significant gender difference was found in social adjustment among secondary school students. Male students demonstrated significantly higher social adjustment scores than female students, indicating the influence of socialization patterns, cultural factors, and opportunities for social interaction on students' adjustment levels.

Conclusion

The study concluded that the majority of secondary school students of Tehsil Karnah possess a satisfactory level of social adjustment, reflecting their ability to maintain positive relationships and adapt effectively to their social environment. The study also revealed a significant gender difference in social adjustment, with male students showing higher adjustment levels than female students. The findings highlight the importance of family, school, and community support in promoting students' social skills and adjustment. It is suggested that schools should provide equal opportunities and supportive environments to enhance social adjustment among all students.

References

- Bandura, A. (1977). *Social learning theory*. Prentice-Hall.
- Bhatia, H., & Bhatia, B. (1997). *A text book of educational psychology*. Doaba House.

- Chauhan, S. S. (2011). *Advanced educational psychology* (7th ed.). Vikas Publishing House.
- Crow, L. D., & Crow, A. (1965). *An introduction to guidance*. American Book Company.
- DeVellis, R. F. (2017). *Scale development: Theory and applications* (4th ed.). SAGE Publications.
- Feldman, R. S. (2001). *Understanding psychology* (5th ed.). McGraw-Hill.
- Hurlock, E. B. (1978). *Child development* (6th ed.). McGraw-Hill.
- Jain, M., & Jandu, K. (1998). Social adjustment among adolescents: A study of psychological factors. *Journal of Educational Research and Extension*, 35(2), 15–22.
- Mangal, S. K. (2019). *Advanced educational psychology* (3rd ed.). PHI Learning Private Limited.
- Shaffer, D. R., & Kipp, K. (2014). *Developmental psychology: Childhood and adolescence* (9th ed.). Wadsworth Cengage Learning.
- Wood, S. E., & Wood, E. G. (1996). *The world of psychology*. Allyn & Bacon.
- Woolfolk, A. (2019). *Educational psychology* (14th ed.). Pearson Education.