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Contents

From the Chief Editor's Desk

I am delighted to present *INSIGHT: Journal of Applied Research in Education*, an esteemed publication of the Department of Education. This edition aims to promote understanding of the research conducted in the department. It provides a medium for the exchange of research experiences and outcome; providing a stencil to the budding researchers and enhancing the theory and practice of research in education. A total of sixteen research papers have been recorded in this volume on host areas lying within the scope of this Journal. I am honored and highly encouraged by the widespread recognition this journal has received across India. I confidently affirm this journal to serve as a guiding hand to the readers and the users in their respective research endeavors.

I extend my humble gratitude and innumerable thanks to **Prof. (Dr.) Nelofer Hassan Khan** - Hon'ble Vice-Chancellor of our University for her patronage, guidance, and wholehearted encouragement. **Prof. Naseer Iqbal** - the Registrar of our University is equally acknowledged for his administrative support. I further express my gratitude to the Advisory Committee and the Editorial Board for their efforts and concerns to make this Journal a reality. On top of that, my sincere gratitude to our reviewers for their invaluable contributions in bringing this journal to fruition.

I am indebted to **Prof. Najmah Peerzada**, the Editor, for her excellent vision and contribution in making this journal a success story. **Dr. Shabir Ahmad Bhat**, the Associate Editor, merits appreciation for his work in the compilation and publication process of this journal.

I acknowledge the valuable contribution of **Dr. Syed Noor-ul- Amin** in giving the final shape to the journal.

Prof. Amina Parveen
Chief Editor

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EXPLORING THE REASONS BEHIND SCHOOL ABSENTEEISM AMONG SENIOR SECONDARY STUDENTS IN KASHMIR: A CASE STUDY APPROACH

Amina Parveen[1]
Shazia Jan[2]
Waseem Raja[3]
Iqra Shabir[4]
Amir Nazir[5]

Abstract

Absenteeism is seen as a complicated behavioural outcome brought on by several conditions. The current study aimed to examine the causes of student absenteeism among senior secondary schools in Kashmir. In this study, the data was collected and analysed qualitatively using a "case study" design. Two prominent higher secondary schools in Srinagar districts were selected and thoroughly investigated. Teachers and students at these institutions served as the study's respondents. The information from the respondents was gathered using a semi-structured interview schedule. According to the results of study, there are a number of factors that contribute to student absenteeism, including low socioeconomic status, inadequate school facilities, parent un-involvement, teacher un-involvement, coaching centres, break due to covid-19, and drug addiction.

Key Words: Absenteeism, Socio-economic status, coaching centres, drug addiction

Introduction

The use of internet has become a part of life for majority of people and number of people using internet have been increased tremendously with over 80 crore Indians connected through internet use (CERT-In, 2022). People are increasingly using the

[1]Professor, Department of Educational, University of Kashmir
[2,3,4,5] Research Scholars, Department of Educational, University of Kashmir

The future of a nation can be gauged by the state of its youth, who represent the most dynamic and crucial segment of society but are also the most susceptible to challenges. When youth-related issues make headlines, it's often about problems. Over the past two decades, there has been a significant rise in concerns such as teenage suicide, gang involvement, substance abuse, and criminal activity among young people. Today, many Indian youths are being led astray for various reasons, one of which is absenteeism from school, either by choice or with parental consent (Barthwal & Pandey, 2018).

Over the years, researchers from various fields such as psychology, social and criminal justice, education, and medicine have examined school absenteeism. Despite interdisciplinary interest, there is some disagreement in how terms related to absenteeism are defined and used in the literature. Therefore, it is crucial to establish a common understanding of student absenteeism for the study. As per the Merriam Webster Dictionary, absenteeism refers to "a tendency to be away from work or school without a valid reason," specifically within the context of school, it denotes the practice or habit of being absent from school or tendency among students to skip school or class. Teasley (2004) defined student absenteeism as a time during which a student does not attend class. It describes absences from elementary or secondary (middle/high) schools, whether they were sanctioned or not (Kearney 2008). Unexcused absenteeism is an issue of major concern that plagues many educational systems across the globe, in contrast to excused absenteeism (such as absences due to medical sickness or accident), which may be considered as non-problematic.

Absenteeism is a complicated behavioural outcome brought on by several circumstances (Corville-Smith, et al., 1998). Studies on school absences have shown that missed classes have several significant repercussions or results (Lounsbury, et al. 2004). These include gang involvement, dropping out of school, poor academic performance, delinquency (Towberman, 1994), less desires for further education, and low school performance (Aiken, et al. 1993). Quantitative studies on the causes and consequences of absenteeism has connected it to a variety of factors, including economic under privilege, self-concept and personality needs, teacher control and support, teacher interpersonal skills, academic squeeze, teenage pregnancy, affiliation issues with peers, substance abuse, and involvement in school athletes, cognitive style, and self-reported alienation (Philips, 1997; Stevenson, et al. 1998; Hirate & Sako, 1998-1999; Byrne & Mazanov, 1999; Whitley, 1999; Rayner & Riding, 1996). Additionally, children who are chronically absent from school run a significant risk of permanent dropout (Kearney 2008), which may result in

economic hardship and a variety of adult mental, social, vocational, and marital issues (Tramontina et al. 2001; Kogan et al. 2005).

Student absenteeism is a major concern for teachers in schools. Absences create a lifeless, dull, unpleasant atmosphere in the classroom, making pupils uncomfortable and the teacher irritated (Marburger, 2001). This issue disrupts the dynamic teaching-learning environment, which has a detrimental effect on the general wellbeing of classrooms (Segal 2008). It is a quality loss since it squanders time, money, and human potential on education. For teachers, student absences may result in rework and wastage of time (Lalek 1995; Rumberger 1997). When teachers use class time to re-teach lessons, it reduces the instructional time available for students who regularly attend class. Additionally, the extra time spent reviewing absentee homework and assignments detracts from lecturers' planning periods and their ability to provide individual assistance (Weller, 1996). When students are not present in class, they miss out on valuable information gained through interactions with peers and instructors, as well as the clarity provided by specific examples used to explain challenging concepts. This essential aspect of the learning process cannot be replicated when coaches have to re-teach material to absent students (Weller, 1996; Williams, 2000).

The topic of rising absenteeism among secondary school learners is a prominent one that persists throughout many nations (Rood, 1989; DeKalb, 1999; Martin, 1991). Student absenteeism is a prevalent issue in both Government and Private Schools across all levels of education in India. Despite the provision of free and compulsory education by the Indian government, absenteeism remains a significant concern, leading to poor learning outcomes. Studies indicate high rates of absenteeism, with variations observed across different regions. For example, in rural Telangana, approximately a quarter (24.7%) of students were absent during an unannounced supervisory visit, while states like Bihar, West Bengal, and Madhya Pradesh reported absenteeism rates ranging from 40% to 50% (Annual Status of Educational Report- ASER, 2017). Similar findings were reported in Uttar Pradesh, Kolkata, and New Delhi, highlighting the widespread nature of the issue (ASER, 2017; Awasthi & Sharma, 2004; Biswas, 2018; Uppal et al., 2010). Furthermore, despite the requirement for students in classes XI and XII to maintain a minimum attendance of 75% as per the examination bylaws of the Central Board of Secondary Education (CBSE), there is no effective mechanism in place to monitor attendance at these levels (Barthwal & Pandey, 2018). This presents a significant challenge in addressing absenteeism among senior secondary students. Addressing the issues requires a better understanding of the underlying reasons for

absenteeism and the full extent of the problem. Jammu and Kashmir a union territory of India is not an exception then it comes to schooling culture. According to the Department of School Education and Literacy (DSEL) under the Ministry of Education (MoE), the dropout rate among secondary-level students in Jammu and Kashmir schools increased from 3.7% in the 2020-2021 academic year to 6.0% in the 2021-2022 academic session (Geelani, 2023). There is a rapid increase in absenteeism at secondary and senior secondary stage in Kashmir. It is becoming a trend in Kashmir that students prefer to stay at homes, Vander in the streets, spend time in gardens instead of attending the schools. It is, therefore, against this background that the present empirical study sought to examine the causes of student absenteeism in the Valley of Kashmir with the aim to explore the following research questions:

1. What are the students' opinions on the causes and factors that contribute to absenteeism?
2. What are the views of teachers about the causes of School Absenteeism among Senior Secondary School Students in Kashmir?

Significance of the Study

Addressing persistent absenteeism is vital for ensuring equal opportunities for academic achievement, promoting societal welfare, and combating educational inequalities. Improving attendance is crucial for academic success as it allows students to benefit from instruction, participate in group activities, and engage in hands-on learning. Persistent school absenteeism in India poses a significant concern as research indicates that children frequently absent from school are prone to eventual dropout, constituting a concealed educational crisis (Kujur, et al., 2021). Over the past decades, India has successfully increased children's net enrolment rates but struggles to retain them in school, particularly in rural areas, where dropout rates remain notably high (Kujur, et al., 2021). Hence, there is a necessity to address the decline in attendance. Thus in the Indian context, alongside low attendance, the problem of school dropout persists. Future dropouts can be identified by monitoring their attendance patterns, as consistently declining attendance often precedes school exit.

The direct and indirect costs of absenteeism are substantial for individuals, schools, families, and communities. Increased frequency and duration of absenteeism among children are associated with lower academic performance (García & Weiss, 2018). It diminishes success as students miss valuable educational opportunities, leading to a loss of teaching time for all students as teachers must allocate

additional time to compensate (Rood, 1989; Williams, 2001; Eastman, et al., 2007). Absenteeism not only signals low academic achievement and dropout rates but also correlates with reduced social and life success (Williams, 2010). It hampers the development of discipline and responsibility, thereby posing challenges in future work and discipline habits (Pehlivan, 2006), potentially resulting in unemployment, low income, and the inability to hold regular jobs (Eastman et al., 2007; Gentle-Genitty, 2008).

Furthermore, as absenteeism escalates, students are more likely to experience psychological issues such as depression or behavioral disorders. They may engage in violence, teenage pregnancy, substance abuse, or other harmful behaviors both within and outside the school setting (Gottfried, 2009; Lannegrand-Willems et al., 2012; Sinha, 2007; Robinson, 2009; Jeter, 2011; Casserly, et al, 2001). Thus, absenteeism among youth serves as a precursor to academic failure and increases the risk of various other negative outcomes. Therefore, it's crucial to comprehend the underlying reasons for this phenomenon.

Review of Literature

At the secondary school level, various factors directly and indirectly influence student achievement, prompting research into teaching methods, learning styles, curriculum design, and teacher training to enhance educational quality and student academic performance. Among these factors, student absenteeism stands out as a significant variable impacting successful secondary education. Absenteeism is defined differently in the literature, with Lannegrand-Willems et al. (2012) characterizing it as a student's absence from school, with or without an excuse, while Robinson (2009) defines it as not attending school, with or without an excuse, missing classes, or arriving late. The persistent rise in absenteeism represents one of the most pressing issues in secondary education today (Martin, 1991; DeKalb, 1999; Rood, 1989). Administrative records from secondary education highlight a rapid increase in absenteeism at this stage (Demir & Karabeyoglu, 2015).

Several studies provide insights into student absenteeism in India. In the North West Frontier Province, an absenteeism rate of 18% was reported among school students (Ali & Reed, 1994). A World Bank study conducted in India during the mid-1990s revealed that approximately 50% of students were frequently absent (Bank, 2001). Another study found the absenteeism rate in India to be 25%, with lower rates observed in schools that underwent regular inspections, had better infrastructure, and were located closer to roads (Kremer, et al, 2005). Moreover,

43% of students aged 7-18 were identified as chronic absentees (Ghosh et al., 2017). Gender disparities were also evident, with higher absenteeism rates observed among female students compared to male students in India (Deepa, 2015). Specifically, approximately 25% of enrolled girls and 17% of enrolled boys in government schools were reported as absent. Additionally, students appointed within their local communities exhibited lower absenteeism rates than those commuting from outside the city or village (Ghuman & Lloyd, 2010).

Existing literature have highlighted various factors contributing to student absenteeism, including lack of student motivation, overcrowded classrooms, inadequate infrastructure, teacher vacancies, non-academic burdens, insufficient training to address diverse classes, declining social status of teachers, and widening social class disparities between students and the clientele of government schools (Mooij & Narayan, 2010). Additionally, Deepa (2015) suggested that school climate also plays a role in influencing absenteeism among high school students in India.

Various studies have identified family socioeconomic status (SES) as a significant risk factor for school absenteeism (Sing, 2015; Gottfried & Gee, 2017; Gubbels et al., 2019; Klein et al., 2020). Students from lower SES backgrounds are disproportionately represented among absentees (Morrissey et al., 2014; Gottfried & Gee, 2017; Gennetian et al., 2018; Gubbels et al., 2019). In India, socioeconomic factors such as family status, maternal education (Farah & Upadhyay, 2017), child's caste, tribe, religion (Choudhury, 2006; Joshi, 2010), and gender (Guha, 2002) independently influence child attendance. Moreover, household-level and neighbourhood factors also influence absenteeism (Dreibelbis et al., 2013; Galloway et al., 1985). In literature there are many other factors that contribute to absenteeism, such as a dearth of a motivating and demanding syllabus, a wish for pleasure-seeking actions with peers, low self-esteem, absence of curiosity in the subject, a lack of personal interest in learning, a student's mental capacity not matching the course they have chosen, and a lecturer's poor teaching abilities that also keep students away from school (Weller 1996; Mayer and Mitchell 1996; Williams 2000; Marburger 2001).

Methodology

The case study method was used in this study. Two prestigious higher secondary schools in Srinagar were chosen and thoroughly studied. The study's respondents were the teachers and students at these institutions. The respondents' answers were elicited using an interviewing technique. A semi-structured interview

schedule was used to collect the opinions and impressions of both students and teachers.

The study used a qualitative approach to gathering and analysing data. Interpretive qualitative methodology was utilised to examine the data in this study. According to studies, written accounts that can be analysed to find themes and draw meaningful conclusions can help us understand a problem from the viewpoint of the people experiencing it (Auerbach & Silverstein, 2003).

Data Analysis

Most of the data for the current study came from interview transcripts and notes that were transcribed, then analysed into themes and sub-themes. The data were analysed using a constant comparative data analysis method. Constant comparative data analysis primarily consists of comparing the most recent data obtained with older data collected in order to spot differences and similarities and discover common themes. This resulted in the development of an extensive coding system. This means that while categories were repeatedly identified, new data was compared to existing categories. As different themes emerged, the connections were noticed. As the categories developed, we searched for internal coherence while remembering that each category needed to be distinct from the rest. We eliminated peripheral categories after we had reached the point of saturation.

Results and Discussion

The succeeding themes were recognized by grouping categories.

Socio-economic Status

When studying the causes of absenteeism, the current study found that socio-economic issues are important. The cases that were studied involve two government schools, and the teachers at the respective schools felt that the pupils admitted to the government schools came from economically weaker sections. Absenteeism and subsequent dropout rates are significantly influenced by families' poor financial status. Some of the students said that because they do part-time jobs, they are unable to attend class on a regular basis.

> One of the students remarked, *"I come from a poor household. I have three siblings, and since I'm the oldest, I have the responsibility in the family. I come to school three days a week and the other four days, i help my father, who works as a butcher."*

The study's findings are consistent with several other studies. Family socioeconomic status (SES) has been found as a significant risk factor for school absence in numerous research (e.g., Gottfried & Gee, 2017; Gubbels et al., 2019; Klein et al., 2020; Sosu, et al., 2020). There are more students that miss school who come from lower socioeconomic families (e.g., Gubbels et al., 2019; Gennetian et al., 2018; Gottfried & Gee, 2017; Morrissey et al., 2014). In general, absence rates rise as family income decreases. Being at-risk for or having chronic absenteeism was significantly more likely if you were raised in a low-income or impoverished family (Romero & Lee, 2007). It can be claimed that a significant contributing reason to school dropout, particularly for boys, is the duty to work and support the family's economy from an early age (Sahin, et al. 2016).

> One of the respondents said, *"I am having three friends, all of us are from middle class families... financially we are not sound. So, we made a group and we work together in different hotels and communities during marriages and other occasions so we sometimes miss our school days".*

The economic circumstances of students' families are identified as a potential factor contributing to absenteeism (Emile-Monono, 2023). Many students belong to households where parents or guardians are either seasonal or permanently unemployed, leading students to seek employment to support their families and education (Şahin et al., 2016). Additionally, students who work part-time often experience negative impacts on their attendance patterns due to their work schedules (Demir & Karabeyoglu, 2016).

Segal (2008) argues that while education was historically viewed as a tool for enlightenment and equality, it is often seen as perpetuating inequality and oppression, lending support to this finding of the study. This raises questions about the actual efficacy of equal opportunity and access in education when some students must forego schooling to earn money for their studies and support their families. Giddens (1990) suggests that despite education's promise to mitigate income and power disparities by providing skills for societal integration, it tends to reinforce existing inequalities rather than eradicating them. Poverty poses challenges for education due to social distribution structures and how certain curricula and teaching methods benefit specific groups over others (Rizvi, 1993). Although the relationship between poverty and education is acknowledged, which suggests that children from low-income families lack essential elements for academic success. Consequently, school absenteeism may hinder efforts to reduce socioeconomic disparities.

Lack of Adequate Facilities in School

Students are less willing to attend school as a result of factors such a lack of sociocultural activities, inadequate physical school structures, and a heavy course load that prevent schools from becoming interesting cities for students. In schools, where they spend a significant portion of their daily time, providing children and teenagers tranquil, joyful, and secure learning settings is a crucial element that can boost their commitment to school and education in general.

> *"The provision for co- curricular activities in our school is negligible. There.....(pointing towards Yard) the lawn you are seeing is for playing.... its space is very small..... you may see students are playing volley ball there .... our school is having only one ball, how many students can play with it we do not have any means of refreshing ourselves, students become tired of academic studies and find excuses not to come to school"* was said by one of the respondents.

Attendance of students is significantly impacted by inadequate school facilities and inadequate infrastructure (Mboweni, 2014). One of the elements determining student absenteeism is the scheduling of break periods, as well as sports and cultural activities (Altnkurt, 2008). Examining the study's findings reveals that some students complain about the condensed break times and the scarcity of furniture, toilets, sports and cultural activities at their schools that makes the school environment unattractive.

While interacting with the students in a group, one of the students said, *"we do not come to school regularly because our education system- the system we are having in Kashmir is unattractive. If you want us to come school regularly make the system attractive."*

School dropouts and absenteeism have been linked to a lack of sociocultural activities, inadequate school buildings, and heavy course loads in other research studies also. According to Gömleksiz & ozdaş (2013), students' propensity to drop out of school reduces as their degree of satisfaction with the educational system and the school rises. According to Aküzüm et al. (2014), inadequate school physical amenities are a significant contributor to absenteeism.

Coaching Centres

Parents pressure their children to perform well in every area as competition increases daily. These children choose outside sources as a result of inadequate guidance at school. In order to do this, they enlist in private coaching, which leads to more effort and absences.

> *"The timing of my coaching center is in the evening. I return very late from the coaching. I become tired and it is difficult to get out of bed early as our school timing is quite early"* said one of the students.

Due to teaching that falls short of student expectations, academic institutions have been given the go-ahead to conduct coaching, which can be explained by the students' declining interest in the regularly scheduled classes at these institutions. *"Unlike schoolteachers, private tutors teach with conscience and their lectures are quite interesting."*

The majority of students' perception that they require coaching for class curriculum-based examinations points to a problem with learning inside the formal education system of educational institutions. It has become clear that students who attend the coaching sessions are losing interest for educational institutions' planned classes. From the perspective of the student, this makes sense given the efficient use of time, which they feel is not being used effectively when they attend classes in educational institutions. Secondary level students, particularly those in classes 11th and 12th, are known to enrol in specific schools only for the purpose of completing the Board examination application while concurrently enrolling in coaching.

> One of the students said, *"We complete our course syllabus in the coaching centres. We can catch up with the private tutors who teach us with zeal and we do not find the need to attend the school. We just come to school for attendance purpose."*

For theory topics that are important for competitive examinations, coaching centres takes care of all the educational needs of students, while the admitting institution makes some short-duration arrangements for labs. Issues regarding the efficacy of the overall educational system are raised by the educational institution's implicit acceptance of student absences from class and facilitation of their attendance during examinations.

Teacher Involvement

Classes are unquestionably specific types of environments. Every classroom has unique characteristics that have an effect on the students, regardless of how it is set up or what the teacher believes about education (Doyle, 1986). The degree to which students remain motivated to attend class on a regular basis is influenced by the teacher's management of the classroom environment. Teachers interact with pupils literally hundreds of times in a single day. The students listed a variety of teachers' negative traits that predispose them to absenteeism or non-attendance,

including bad teacher teaching methods, dull lectures, lectures that are too long, and lecturers that show favouritism to particular students. Students are subtly encouraged to skip class by boring, unapproachable, harsh, and unsympathetic teachers.

> One student remarked *"The way our school teachers teach us is very boring. Only one or two school teachers teach us with dedication and hard work.*

Research that was conducted at Lincoln University by Fleming (1995) support the findings. According to his research, students' primary excuses for skipping lectures were bad lecturing (23%), the lecture's time (23%), and the lecture's topic (9%). Teasley (2004) makes the additional point that students who have strained or contentious relationships with their teachers will stay home in order to avoid them, which adds to the problem. Wadesango and Machingambi (2011) also point out that uninteresting teachers and bad teaching methods cause students to skip class. When teachers do not use a variety of teaching techniques and students are aware of their assignments in advance, they simply choose to miss school. While teachers' good classroom attitudes have a favourable impact on students' school attendance, teachers' authoritarian attitudes in the classroom can make students miss class. It is claimed that another factor contributing to student absenteeism is the ineffective communication between teachers and students.

Students are also more likely to skip class and quit school when teachers behave negatively toward them and have excessively oppressive attitudes. Additionally, it has been seen that students who are terrified of their teachers' strict and critical reactions when they arrive late to school choose not to attend that day.

> *Our school timing is 9 O'clock in the morning. If we are late by five minutes our physical Education teacher punish us very harshly,* said one of the students.

The conclusion that teacher' traits and qualities can make the issue of absenteeism worse exposes two significant ironies that exist in education. First, teachers are expected to lead the charge in boosting student productivity, retention, and attendance rates. This is true not just because it is a requirement of their professional duty, but also because employment as a teacher is contingent upon the presence of students. Second, it is somewhat surprising that participant students admitted that they skip scheduled lessons because they don't like particular teachers or particular courses, as this is the last thing that should be expected in a positive teaching/learning environment.

Parent Un-Involvement

Under this theme, absenteeism was attributed to a learner's parents not being involved in their education. It was claimed that some parents are too busy to check on their kids' homework, while others do not place a high priority on education, which leads to absence because children are allowed to choose their own schedules for school.

> When asked about the reasons of absenteeism, one of the teachers said, *"Majority of students in this school are from middle class families. Their parents are busy in their own work. They do not bother to visit the school to see progress of their children".*

Literature also claims that parents of children who attend impoverished schools show little concern in their children' academic performance. If parents don't care about their kids' academic achievement, it influences how often they go to school (Maynard, 2014). One more teacher remarked:

> *"Well... what should we (the teachers) do if the students' parents do not think of their children, we organize parent-teacher meets but majority of the parents do not come to attend such meetings. The children leave for school from their homes but the parents do not bother to see whether they are coming to the schools or going elsewhere.*

Children from families with poor communication with the school miss more school and are more likely to drop out than other pupils. Thornton and his colleagues (2013) assert that parent-teacher conferences, extracurricular activity, and monitoring a child's attendance and homework all help to improve a child's academic achievement and attendance. Children from families who are unable to have open contact with their children, who are excessively oppressive, or who lack authority over their children and have accepted their failure have been found to have much higher absenteeism and school dropout rates.

> *"A lot of parents here can't raise children, so it doesn't surprise me that a lot of students are often absent"* was said by another teacher.

Chronic absenteeism can be avoided in large part due to parent involvement (Allison & Attisha, 2019; Hornby & Blackwell, 2018; Wallace, 2017). Children's daily attendance at school is directly impacted by the attitudes, perspectives, and actions of their parents. According to earlier surveys, parents face difficulties that make it tough for them to send their children to school daily (Wallace, 2017; Hornby & Blackwell, 2018). Attendance is enhanced through

increasing parental participation and informing parents of the precise number of days their child was absent.

Break due to Covid-19

Although the issue of student absenteeism is not new, it requires ongoing attention to guarantee that students receive the education they need and deserve. According to Dearing et al. (2018), one in ten students misses more than 10 percent of the school year due to chronic absences. A possible contributing factor to the surge in chronic absenteeism at some schools is the recent COVID-19 pandemic.

> One of the teacher respondents remarked, *"As we know that there was a gap of more than one year due to covid. During covid-19, students were studying online within the comfort zones of their homes. They became habituated to that very zone and know they are not ready to leave that comfort zone and they do not come to school.*

In addition to their comfort zones, Covid-19 introduced students to a variety of online learning environments where they may fulfil their academic goals and needs while becoming less reliant on their teachers. One of the students Said:

> *"I can be sitting comfortably at home and get better teaching according to my own schedule from You tube etc ...feeling relaxed.... why should I come to school while most teachers do not even teach?"*

In Long Beach, chronic absenteeism increased from 12 percent before to COVID-19 to 25 percent this year, according to an article by Blad (2022). Even though it just represents one American city, which is roughly twice as much. As additional data is gathered to analyse the consequences of the epidemic, it is quite possible that this surge will become a trend we observe across the nation and world.

Lack of Proper Assessment System

Lack of a suitable assessment system was identified as a contributing factor to absenteeism under this theme. In institutions that use summative exams, missing school does not have a higher negative impact on a student's grade.

> One of the teachers said, *"The type of evaluation our education system is having is a summative type of examination. The end term exam consists of two sections- External- written test comprising of 80 marks and Internal- comprising of 20 marks having a negligible scope for attendance"*

The lack of attention given to absenteeism is evident in the careless management of student absences, the failure to inform parents when a student is absent,

cheating on exams, and the failure to look into the reasons behind absences, all of which contribute to an increase in absences and, ultimately, the occurrence of school dropouts.

> When asked about the influence of attendance on the grades one of the students replied, *"our grades are not affected by remaining absent from the school as we cheat our examiners and imitate the questions from others and from mobile phones. We have learned where to keep our mobile phones and notebooks prior to the examinations."*

Drug Addiction

Adolescent substance abuse has been linked to long-term detrimental effects on education, including lower high school graduation rates (Chatterji, 2006; Renna, 2007; Horwood et al., 2010; Kelly et al., 2015), lower post-secondary educational credentials (Staff et al., 2008), and higher dropout rates (Van Ours and Williams, 2009; Leach and Butterworth, 2012; Brière et al., 2014). The current study highlighted drug abuse as a factor in adolescent pupils' absences from school.

> One of the teachers said, *the students studying in this school are from the vicinity and this area-area around downtown is considered as the hub of drug addiction and drug peddling. Many students have become drug addicts. Such students prefer to remain absent because they can't spend whole day without drugs in school as students are allowed to enter school after a thorough checking of their bags and pockets....".*

The results support earlier studies showing that marijuana and alcohol use are significant risk factors for adolescent absence from school (Hill & Mrug, 2015; Hemphill, et al.2014; Brown et al., 2001; Dembo et al., 2012; Henry, 2010; Bryant & Zimmerman, 2002; Henry & Huizinga, 2007). According to the authors of a Compared to just 3.8% of adolescents who never smoked tobacco, nearly 25% of young tobacco users missed at least 3 days of school (Feemster, et al., 2016). "Students who are taking drugs and disengaging from school had the highest likelihood of recent absenteeism" (Henry, 2007).

Conclusion

Absenteeism is the term used to describe a common tendency among students to skip school or class. If action is not done, a series of events that could include academic failure and dropping out of school, financial troubles, and other mental, social, and occupational issues in adulthood, could occur due to absenteeism. The issue is brought on by the interaction of numerous elements, both internal and

external to the student and/or the school. Poor socio- economic status, inadequate school facilities, parent un-involvement, teacher un-involvement, coaching centres, break due to covid-19, and drug addiction are major contributors to absenteeism. Rather than solely relying on punitive measures, addressing the root causes of truancy and fostering parent engagement are essential strategies for prevention and intervention.

To effectively address absenteeism, it is imperative to adopt a holistic approach that considers diverse factors contributing to absenteeism. This includes recognizing teachers as key agents of change and providing support to families facing complex issues. Punitive measures, such as benefit revocation, may exacerbate challenges for vulnerable families. Therefore, comprehensive strategies should prioritize interventions that promote parent involvement, teacher effectiveness, and address underlying causes of absenteeism. Further research is needed to explore innovative approaches for reducing absenteeism rates, particularly in underserved communities. By understanding the barriers students face, interventions can be tailored to improve attendance and promote better educational outcomes for all students.

In conclusion, addressing absenteeism requires multifaceted solutions that involve collaboration among schools, families, and communities. By prioritizing parent involvement, supporting effective teaching practices, revising curriculum and co-curriculum and adopting holistic approaches, we can work towards improving student attendance and enhancing educational success.

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CREATIVITY AND LOCUS OF CONTROL: AN ANALYSIS BETWEEN HIGH AND LOW CREATIVE SECONDARY SCHOOL STUDENTS

Mufti Shahla[1]
Mahmood Ahmad Khan[2]

Abstract

Creativity is a high-order thinking ability that enables individuals to generate new ideas, solve problems, and adapt to changing situations. It plays a vital role in developing critical thinking, innovation, and adaptability in an ever-evolving world. This study aimed to study the locus of control among secondary school students with high and low levels of creativity. The study was conducted by using descriptive method. The sample for the study was selected randomly from government secondary schools of the district Shopian. Initially, 803 secondary school students were part of the study. To assess creativity, Mehdi's Verbal Test of Creative Thinking (2019) was administered. However, three students were excluded due to incomplete responses, leaving a sample of 800 students. Students scoring above the 75th percentile were classified as high creatives', while those scoring at or below the 25th percentile were categorised as low creative students. This resulted in a final sample of 400 students, with 200 in each group. The Locus of Control Scale by Hooda and Dahiya (2022) has been administered to measure LOC. An independent samples t-test was used to compare the two groups on LOC. The Pearson Correlation coefficient was used to find the relationship between these two variables. A significant difference was found among the two groups on dimension wise and composite scores of LOC. Results also revealed that higher the creativity higher is the internal locus of control and higher the creativity lower is the external locus of control.

Keywords: Creativity, Locus of control, Capability, Belief, Attitude.

Introduction

Creativity is an essential human trait that propels our society ahead and is often defined as the "production of novel and practical solutions, ideas, or products" (Runco & Jaeger, 2012). Creativity is a uniquely complex human ability that allows us to come up with new ideas, find innovative solutions, and express ourselves in original ways. It is the capacity to create something novel that has purpose or

[1]Research Scholar, Department of Education, University of Kashmir
[2]Professor, Department of Education, University of Kashmir

significance. It impacts almost every facet of life, such as planning, organising, communication, and decision-making (Runco & Pritzker, 2011; Sawyer, 2012) and acts as the source of the majority of advancements in science, technology, and society. Lucas and Spencer emphasise that creative thinking is an essential skill for today's youth, helping them adapt to a fast-changing world shaped by globalisation, digitalization, and the demand for flexible, 21st-century skills. Across the globe, from elementary school to university education, creativity is seen as a critical competency (OECD, 2019; Zahidi, Ratcheva, Hingel, & Brown, 2020). According to Begetto and Plucker's research, "A learner's imagination and curiosity can accelerate the learning process, while creative thinking serves as a vehicle for understanding their own learning goals. Vygotsky (1967) stated that if educating pupils is primarily meant to prepare them for the future, then fostering students' creative thinking "should be one of the main forces enlisted for the attainment of this goal." "Creativity is the competence to engage productively in the generation, evaluation, and improvement of ideas that can result in novel and useful solutions, advances in knowledge, or impactful expressions of imagination" OECD (2019, p. 8). This concept emphasizes that being creative involves more than just coming up with original, practical ideas, it also entails assessing and choosing which ones to put into practice. Everyone has the capacity for creativity but degree and kind of creative output vary from person to person (Rahmawati, 2016; Craft, 2003; Solso, 1995). Hernández-Torrano & Ibrayeva (2020) in their study highlighted that research on creativity in education has increased a lot over the past 45 years. The field focuses on how creativity is taught, its role in workplaces, and the thinking and emotions behind it. However, most research comes from a small group of experts and institutions. More studies in different educational settings are needed to better understand, measure, and apply creativity. Creativity has been studied in relation to various personality variables as researchers seek to understand the traits that contribute to creative potential. Personality factors such as openness to experience, intrinsic motivation, risk-taking, self-efficacy, and intelligence have been explored in connection with creativity. Among these, locus of control has emerged as a significant variable influencing creative thinking.

Julian Rotter has introduced the psychological construct - locus of control in 1954, building its framework on social learning theory. Locus of control is a belief held by individuals that how much the experiences and circumstances of their lives are under their control (Education Reform, 2013). According to Rotter (1966), reinforcements such as incentives or punishments guide behaviour, and it is through these experiences that a person forms beliefs about what motivates his

conduct or the forces at play in his environment. "It is a belief about whether the outcomes of our actions are contingent on what we do (internal control orientation) or on events outside our personal control (external control orientation)" (Zimbardo, 1985, 275). It is "an individual's perception about the underlying main causes of events in his/her life" (Rotter, 1966). It describes how people assign control to their surroundings, events, and the success or failure of their actions. It gives us information about the forces that regulate our lives. In academics, locus of control refers to how pupils see the reasons behind their academic achievement or shortcomings. A person's locus of control affects both their motivation to act and how they react to academic situations (APA, 2021). The locus of control of an individual can be either internal or external (Rotter, 1954). Rotter (1975) stated that these two categories are not entirely independent, but rather two ends of a spectrum, with people falling somewhere in the middle. Individuals have an internal locus of control when they commonly ascribe their successes and failures to their own controlled conditions (i.e., success or failure occurred as a result of the individual's effort or lack thereof). Students with an internal locus of control think that their hard work and effort will determine whether they succeed or fail. Those who have an external locus of control attach success to outside forces like fate or luck. They frequently attribute their triumphs and failures to circumstances beyond their control, such as luck, fate or challenging tasks. Externals held a view they have no influence over a lot of the things that happen in their lives.

Researchers have studied the relationship between creativity and LOC, and no consistency was found in results of various studies. Some showed internals are more creative (Michaela et al., 2015; Lather et al., 2014; Flor et al., 2013; Chadha ,1989 ; Gary, 2003; Heasaker, 1981; Moneta & Siu, 2002 and some studies revealed high creativity is found in persons with more external orientation (Zi ,1998; Richmond & De La Serna, 1980; Pannells & Claxton). Also, few research studies (Bolen & Torrance, 1978; Moradi et al., 2015) concluded that no difference is found in creativity levels of internals and externals. After an extensive review of the literature, it has been found that studies have been conducted on creativity with academic achievement (e.g., Ojha, 2013), achievement motivation (e.g., Rani, 2013), educational achievement (e.g., Trivedi, 2010), self-concept (e.g., Peerzada, 2006), intelligence (e.g., Yadav, 2015; Gupta, 1977;), self-confidence (e.g., Siddique, 2022), locus of control (e.g., Jain et al., 2014), family climate (e.g., Yadav 2021), personality factors (e.g., Babu,1977; Parveen, 2013). It has been found that studies have been conducted on high and low creative students by researchers like Nair (1975), Gupta (1981), Kumar (1981), Asthana (1987), Mattoo (1992), Sarsani (2008), Shukla

(2014), Yadav (2015) Hafeez (2017) on personality factors, adjustment, Interest Patterns, anxiety, learning style, motivation, scholastic achievement, cognition, vocational interests, self -regulated learning, vocational interests. Few studies have been conducted in India on high and low creative secondary school students concerning their LOC, and no study has been conducted in Jammu & Kashmir on the Locus of Control of students with high and low creative thinking abilities at the secondary level. Further, while reviewing literature, studies revealed mixed results regarding the relationship between creativity and Loc, so the investigator has recognised the need to further investigate the relationship between locus of control and creativity, particularly by examining differences between high and low-creative students. Despite offering a significant contribution to the theory, this study shall be very helpful for the policymakers and educationists to frame genuine strategies for the nourishment of creativity of secondary school students. It will be helpful for creative students in particular and students in general. Taking these points into consideration, the researcher has decided to conduct the study on Locus of control of high and low creative students at the secondary level.

Objectives

1. To identify High and Low Creative Secondary School students.

2. To compare High and Low Creative Secondary School students on Locus of Control.

3. To find out the relationship between creativity and Locus of control among secondary school students.

Hypotheses

H1(a) There is a significant difference in the Locus of Control of High and Low Creative Secondary School students. (Composite Score).

H1(b) There is a significant difference in Locus of Control of High and Low Creative Secondary School students. (Factor-wise)

H1(c) There is a significant relationship between locus of control and creativity of secondary school students.

Sample

The sample for the study was selected from government secondary schools of the district Shopian. There are four educational zones in the district Shopian. In these

four zones, there are 53 government secondary schools. Out of these 53 secondary schools from each zone, 8 secondary schools were selected randomly (32 schools) and all the 9th class students studying in these selected schools form the initial sample of the study (n= 803) and Mehdi's Verbal test of creative thinking (2019) was administered to them. After scoring, three students were screened out due to incomplete responses. Those students whose scores fall 75th percentile above were considered as high creative (n =200), and those whose scores fall on the 25th percentile and below were considered as low creative students (n =200). This criteria of extreme case selection has been used by (Dar and Rather, 2024; Hafeez , 2017; Khan & Rather, 2014; Khan & Jabeen,2013; Matto, 1992).

Tools used

1. Mehdi's Verbal Test of Creative Thinking (Revised version 2019). This scale consists of 10 items and three dimensions – Fluency, Flexibility and Originality.

2. Locus of Control scale by Hooda and Dahiya (2022). This scale consists of 31 items divided into two dimensions - (I) Internal Locus of Control (II) External Locus of Control.

Statistical techniques

Percentile analysis, skewness, kurtosis, t-test and Pearson's Correlation.

Analysis and interpretation

Table 01. Distributional Nature of Data of Locus of Control Variable.

N	Mean	Median	Mode	S.D	S.E of Mean	Z valueof Sk.	Z value of Ku.	Z standard
400	92.88	92.00	90.00	12.85	.642	.36	-1.20	±1.96

Before analysing the data, the investigator checked the normality and the distributional nature of LOC data. The range of Z value -1.96 to +1.96 exhibits the normal distribution of the data (Doane & Seward, 2011). Table 01 highlights the z value, which fall under the acceptance range of Z values. Therefore, the data distribution for the Locus of Control variable met the basic assumptions to be normally distributed. The mean of Locus of Control data for sample 400 is 92.88, S.D is 12.85, S.E of Mean is .642, Z value of skewness is 0.36 and z value of kurtosis -1.20 which depicts that data is normally distributed.

Table 02. Significance of mean difference between high and low creative students (N=200)on composite score of Locus of control.

Dimension	Group	N	Mean	S.D	t	Results
Internal LOC	High creative	200	90.91	12.65	3.00	** Significant
	Low creative	200	**94.86**	**12.80**		

***Significant at 0.01 level*

From Table 02, it is evident that High creative secondary school students significantly differ from Low creative students on Composite score of LOC. High creative students had amean score of 90.91, and low creative students exhibited a mean score of 94.86, which indicateshigh creative students have higher self-efficacy than low creative students. The obtained 't' value is 3.00, which is far beyond the tabulated 't' value at the 0.01 level. Thus, the H1(a) *There is a significant difference in the Locus of Control of High and Low Creative Secondary School students.* (Composite Score) is accepted at a 0.01 level of significance.

Fig.01. Showing comparison of high and low creative students on Locus of control (Composite score).

Table. 03. Significance of mean difference between high and low creative students (N=200)Locus of control. (Factor Wise)

Dimension	Group	N	Mean	S.D	t	Results
Internal LOC	High creative	200	47.00	6.72	2.67	** Significant
	Low creative	200	48.83	6.97		
External LOC	High creative	200	43.92	7.00	3.10	** Significant
	Low creative	200	46.10	6.98		

***Significant at 0.01 level*

The perusal of table 03 makes it obvious that high and low-creative students significantly differ on the Internal loc dimension of self-efficacy. The obtained 't' value is 2.67, which is significant at 0.01 level of confidence. Table 03 depicts that the mean of high creative students on the external loc dimension of locus of control is 43.92, which is greater than the mean score of low creative students, 46.10. The obtained 't' value is 3.10, which is significant at 0.01 level of confidence. Thus H1(b) *There is a significant difference in Locus of Control of High and Low Creative Secondary School students. (Factor-wise) is accepted at 0.01 level.*

Table 03 Significance of mean difference between high and low creative students (N=200)Locus of control. (Factor Wise)

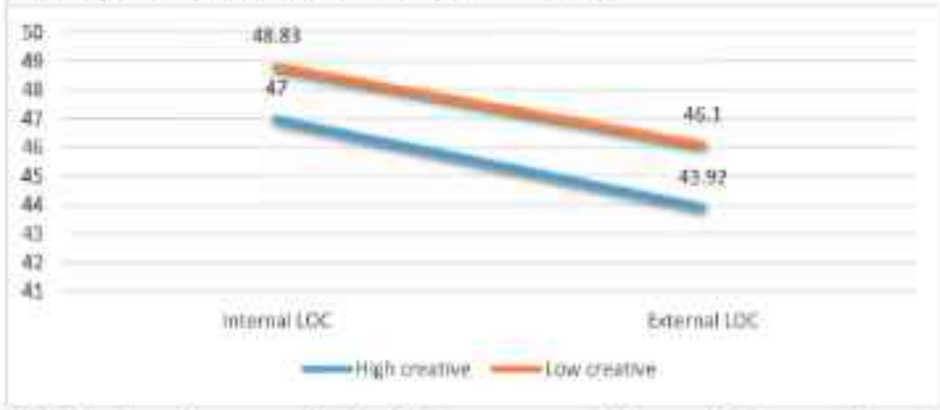

Table.04: Showing correlation between creativity and Locus of control of secondary school students

	Dimensions	Locus of Control	
		Internal LOC	External LOC
Creativity	Fluency	-.231	-.253
	Flexibility	-.288	-.264
	Originality	-.255	-.265
	Composite Score	-.241	-.267

Discussion

The above-mentioned results indicate that there exists a significant negative correlation between creativity and internal locus of control, which suggests that as students become more creative, their internal locus of control scores also increases. Since lower Internal LOC scores indicate a higher internal control, it implies that students with high creative thinking ability tend to believe that their success is

determined by their own efforts rather than external forces. Among the three creativity dimensions, flexibility shows the strongest relationship with Internal LOC, suggesting that students who can think in diverse ways are more likely to feel in control of their outcomes. Results also reveal there is significant negative correlation between fluency, flexibility, originality, and External LOC, implies that as students become more creative, their reliance on external factors decreases. This means that students with higher creativity are less prone to blame fate, luck, or outside factors for their results. Again, originality has the strongest correlation with External LOC, indicating that students who generate novel ideas have a lower tendency to depend on external circumstances. Overall, these findings suggest that creativity is strongly linked to an internal locus of control, meaning that creative students are more self-reliant and confident that events in their lives are under their control. It indicates that students who are more creative have dominant internal loc and less external Locus of control. High creative ability is accompanied by high belief that one can control his destiny, outcome by efforts and believes less on luck while low creative ability decreases belief of student on hardwork and make him more reliant on luck.

These findings are supported by (Xu et al., 2020;Khoshsima& Izadi, (2015) ; Lather et al., 2014; Torrance ,1971; Chadha,1989 ; Gary, 2003; Heasaker, 1981; Moneta & Siu, 2002). Khoshsima & Izadi (2015) concludes that the learners with high creative writing ability were found to have higher the internal locus of control. Lather et al. (2014) found that students having high internal locus of control exhibit greater fluency and originality. Chadha (1989) confirmed the notion that creative thinking is more likely to occur among self-driven persons. Our findings are in contrary with (Bolen and Torrance ,1978 ;Richmond and De La Serna, 1980; Zi ,1998; Pannells and Claxton ,2008) . Pannells and Claxton (2008) found the creative ideation and external dimension of locus of control were positively correlated with each other. Zi (1998) studied Chinese college students and found that chance perception was more effective than internality in predicting creative abilities. These results can be justified on the grounds that the active engagement, initiative in problem-solving, and introspective nature inherent in creativity significantly contribute in developing an internal locus of control. These individuals actively seek solutions to challenges, exploring multiple perspectives and experimenting with novel ideas, which reinforces their belief in personal agency and responsibility for outcomes (Amabile, 1983; Csikszentmihalyi's, 1996; Bandura, 1982). Moreover, creativity promotes introspection and self-reflection, prompting high creative students to recognize and capitalize on their strengths and abilities (Runco, 2007). In contrast, low creatives'

often held a belief that external factors such as luck or circumstances beyond their influence determine their success and failure. This tendency stems from a lack of proactive problem-solving and self-reflective behaviours that are integral to creative thinking, limiting their belief in personal agency and undermining their sense of responsibility for outcomes (Lefcourt, 1976).

Conclusion

This study emphasizes the strong link between creativity and locus of control in secondary school students. The findings indicate that highly creative students tend to have a dominant internal locus of control, believing that their efforts and persistence directly influence outcomes. On the other hand, students with an external locus of control are generally less creative, as they attribute success or failure to outside factors. These insights highlight the need for a learning environment that nurtures creativity, empowering students to take charge of their learning and develop strong problem-solving skills. Creativity is not just a higher-order thinking skill, it is essential for society and shapes how we perceive and respond to life events.

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ACADEMIC STRESS OF SENIOR SECONDARY MADARSA STUDENTS: AN ANALYSIS

Aiyaz Ahmad Khan[1]
Mohammad Amir Khan[2]
Mohd Noor Alam[3]

Abstract

Academic stress is a major area of concern within the field of education. The present study focuses on academic stress experienced by senior secondary madarsa students. The study's basic data was gathered from 105 senior secondary madarsa students in Uttar Pradesh's Aligarh area who were chosen at random. The authors used a self-made Academic Stress Questionnaire and its reliability was tested through Cronbach's Alpha. The percentage, t-value, and Pearson's correlation analysis were used to analysed the data collected. The study results showed that senior secondary madarsa students predominantly experience low academic stress. However, the fear of failure was the only aspect of their high academic stress. A significant difference was seen in the academic stress of boys and girls madarsa students, with boys experiencing higher academic stress levels. Further, the study reveals significant relationships between senior secondary madarsa students' stress levels and variables including gender, nativity, father's occupation, and mother's education and occupation.

Keywords: Academic Stress, Senior Secondary Madarsa Students

Introduction

Any society or nation's prosperity depends greatly on education. Education also plays a crucial role in an individual's growth and development. For providing education to individuals, society and government frequently creates schools and colleges. Likewise, new madarsas are regularly opened under Article 30 of the Indian Constitution. Madarsa is regarded as a normal school where formal teaching and learning take place following Muslim culture. It varies across nations and towns (Peter & Pandey, 2006), ranging from general curriculum day boarding school to mosque-affiliated school with a solely religious curriculum. Generally, madarsa lacks resources compared to the mainstream education system and are associated with a

[1] Assistant Professor, Department of Education, Aligarh Muslim University Centre Murshidabad (AMUCM), West Bengal
[2] Research Scholar, Department of Teacher Training and Non-Formal Education, Jamia Millia Islamia (JMI)
[3] Research Scholar, Department of Teacher Training and Non-Formal Education, Jamia Millia Islamia (JMI)

weaker section of society. The Prime Minister's High-Level Committee (2006) reported that Muslims are the most educationally backward community in India.

Similarly, the National Education Policy (2020) pointed out that minority communities are underrepresented in school and higher education. Therefore, the only educational choice opens to Muslim youngsters, particularly the weaker and impoverished ones, is madarsas (Sultan et al., 2019). Undoubtedly, today's Madarsa is a major source for providing education to underprivileged Muslim groups. Like others, madarsa students experienced pleasant and difficult circumstances during their academic journey. Further, they encounter numerous challenges while in school, that may arise due to the sudden transition from secondary to senior secondary stage and their period of adolescent age. If they are unable to handle these problems stress occurs. Stress is any condition that disturbs normal functioning and affects individuals' mental and physical well-being. Seyle (1974) described stress as the body's general reaction to any demand made upon it. Jain and Singhai (2017) described stress as emotional or physical tension. It can be divided into four categories i.e. emotional, behavioral, cognitive, and physical (Vliside et al., 1994). Stress may have both beneficial (positive) and detrimental (negative) effects (Oduwaiye et al., 2017). Beneficial (positive) stress increases a person's attitude, behavior, and performance and motivates them. On the other side, negative stress lowers one's morale and productivity and produces anxiety, fear, and panic (Gulzhaina et al., 2018). However, a circumstance or incident that may cause stress in one person may not induce stress in another. Therefore, different people have different responses to handling stress.

In today's fiercely competitive world, academic stress has become widespread among students. It is concerned with mental anguish or distress of some expected frustration connected with academic failure or just being aware that it could happen, which serious detrimental or negative impact on the academic pathway (Lin & Huang, 2014). Sometimes, mild stress helps us boost our motivation to succeed (Yikealo et al., 2018). However, extreme stress causes serious physical and mental health issues (Jain & Singhai, 2018). Nation Education Policy 2020 acknowledged this important issue and recommended that all educational institutions shall implement counselling programmes to help students deal with stress and emotional adjustments. Thus, stress can seriously affect an individual if not managed and controlled effectively.

During the school years, stress may occur among students due to several reasons such as appearing in school examinations, homework, projects, the competitive

nature of one's profession, and prospective future employment (Ross et al., 1999). Apart from that, many students experience stress due to classroom burdens or loads, for example, answering questions in the classroom, displaying consistent academic improvement, making an effort to comprehend the teacher's message, and engaging in peer competition (Lal, 2014). Besides, the academic expectations of teachers and parents put some students under stress. Misra and Others (2000) observed that gender differences influence students' perceptions and reactions to academic stressors. In homes where parents prioritize their sons' education, gender inequality may be stressful for girls (Ghatol, 2021). Academic stress is the same for both boys and girls, though girls are more susceptible to stress because of their personal health, peers, and upcoming events. Many scholars have reported that boys are more likely to be seen managing their emotions, accepting or adapting to the issues and environment, and attempting to solve the problem, whereas girls are more likely to express their emotions or feelings overtly (Hyde & Plant, 1995). Despite the fact, that each gender has a different way of handling stressors. Therefore, this study aims to explore academic stress experienced by senior secondary madarsa students.

Prior Relevant Literatures

A growing amount of researches highlighted the significance of stress in diverse contexts. In the current scenario, stress has become a significant academic concern due to its significant impact on students' social and academic life (Dimitrov, 2017). According to Rana and Others (2019), stressed students have academic, social, physical, and emotional issues. It happens when an individual cannot handle the level of pressure that is both internal and external (Aafreen et al., 2018). Bhargava and Trivedi (2018) pointed out that the younger generation experiences more stress due to the competitive nature of the world. This may be due to the demands of various periods of human development from adolescence to maturity, schooling years as well as general life journeys (Lin & Huang, 2014). Apart from this, it can also lead to low self-esteem among adolescents. Nikitha and Others (2014) in their study observed that low self-esteem is a mental health issue that makes depression and suicidal tendencies more likely. Many studies indicate that stress can negatively impact a student's performance and lead to physical and mental problems, such as anxiety, illness, fatigue, sadness, and high levels of suicidal intention (Gulzhaina et al., 2018). Tung and Chahal's 2005 study found no evidence of a causal link between stress and adjustment in teenage girls. They suggested that the degree of adjustment affects both the stress levels and the number of stressful events. In their study, Hussain and Others (2008) found that, in terms of the severity of academic stress, government school students had much higher levels of adjustment in comparison to private

schools. In another investigation, Subramani and Kadhiravan (2017) discovered a strong connection between stress and mental health. Likewise, many other studies showed a significant relationship between stress and academic achievement (Kaur & Yadav, 2019; K & Subramanian, 2021). Thus, students' academic performance and health-related quality of life are directly correlated with stressful life events (Dusselier et al., 2005; Misra & McKean, 2000).

Gender differences in stress levels are the subject of numerous research. According to Misra and Castillo (2004), men and women perceive and respond to stress differently. Jagaratnam and Buchanan (2004) discovered that boys' and girls' students differed significantly in terms of time pressure elements that cause stress. Research by Kumar and Others (2011) concluded that stress levels differ among males and females, even though the approaches for reducing stress cannot be the same for both. In the same way, Govaerts and Gregoire (2004) found that girls gave stressful situations a greater value, while boys believed they had more resources to deal with stressful circumstances. Another study by Sulaiman and Others (2009) observed the same results, they stated that female students experience different levels of stress than their male counterparts. According to research by Kumar and Bhukar (2013), women in their profession experienced much more stress than males. According to Kaur (2015), male students are far more frustrated than female students, possibly due to their emotional and sensitivity to their surroundings. In contrast, Walton's study in 2002 on stress and coping mechanisms among junior and senior nursing and social work students found no discernible gender variations. Another study by Kaur and Simmi (2015) found no correlation between socioeconomic status and anxiety in boys and girls and no evidence of a difference between the two.

Several studies on academic stress have been undertaken in both genders. In their study, Pourrajab et al. (2014) found that the level of academic stress varied between male and female students. Dhull and Kumari (2015) claim that there are notable differences between the academic stress that male and female teenagers endure. It was shown that teenage girls had higher levels of academic stress compared to their male peers. In addition, they proposed that decreasing academic anxiety, academic dissatisfaction, academic pressure, and academic conflict could lower stress levels among students. Research by Yumba (2010) found that female first-year undergraduate students reported more stress than male counterparts. He also highlighted several stressors due to demanding coursework, achieving good marks, an overwhelming amount of homework, and ambiguous assignments. In a different study, Menaga and Chandrasekaran (2014) found significant academic stress

variations among higher secondary students based on gender, family type, and school management, but no significant difference was seen in connection to study stream and family income. According to Kumari and Gartia (2012), academic success and stress are not affected by gender. Bartwal and Singh (2014) noticed that both male and female teenagers in rural and urban areas experienced almost the same amount of academic stress. Further, a study by Khan and Others (2013) reported that academic stress has a considerable impact on students' academic performance, but no significant difference was found between male and female students' stress levels. Previous studies show paradoxical results on male and female stress levels, suggesting stress is not solely influenced by gender or location, but can also vary depending on the type of school. Hence the authors conducted this study on madarsa students as no existing research has addressed their academic stress.

Objectives

1. To assess the senior secondary madarsa students' academic stress.
2. To compare the academic stress of boys and girls of senior secondary madarsa students.
3. To ascertain the relationship between personal variables and academic stress of senior secondary madarsa students.

Hypotheses

HO_1: Boys and girls among senior secondary madarsa students would not differ significantly on overall academic stress and its various subscales viz. inadequate academic environment, lack of adjustment, personal inadequacy, interpersonal issues, and fear of failure.

HO_2: There exists no significant relationship between personal variables and academic stress of senior secondary madarsa students.

Limitations

The present study was restricted to Aligarh district of Uttar Pradesh. Further, the study was delimited to government-aided madarsa affiliated with the Uttar Pradesh Board of Madarsa Education.

Research Methodology

The authors used the descriptive survey method to fulfil the objectives of the study. The information presented in the study have been taken from primary sources.

Sample

The study's sample was drawn from senior secondary madarsa students in Uttar Pradesh's Aligarh district. In Aligarh district, there are only four government-aided madarsa (3 for co-education and 1 for girls) affiliated with the Uttar Pradesh Board of Madarsa Education that offers senior secondary education (Aalim course). One out of the three co-educated madarsa was selected through a random sampling method, and one girl's madarsa was taken. Thus, two madarsa were part of the sample. The sample comprised 105 senior secondary madarsa students, consisting 53 boys and 52 girls, randomly drawn from these selected two madarsa.

Research Tools

Authors used a self-made questionnaire to measure the academic stress level of senior secondary madarsa pupils. The questionnaire consisted of 40 items based on five areas (i.e. inadequate academic environment, lack of adjustment, personal inadequacy, interpersonal issues, and fear of failure), containing 8 items from each. In the process of designing items, authors took help from other scales. The items were developed in Urdu language keeping in mind the student's background. Further, it was approved by language experts. Thus, content validity was established with the experts' opinions. An internal consistency test using Cronbach's Alpha was used to determine the scale's reliability. Cronbach Alpha coefficient was found to be 0.956 for the component inadequate academic environment, 0.963 for lack of adjustment, 0.933 for personal inadequacy, 0.947 for interpersonal issues, 0.973 for fear of failure, and 0.918 for the overall questionnaire. Thus, all the values of Cronbach Alpha are greater than 0.75, which shows that the tool is highly reliable (as presented in Table 1). The replies were recorded using a 5-point Likert scale (5 for always, 4 for mostly, 3 for sometimes, 2 for rarely, and 1 for never). The respondent must choose one alternate option related to the item based on their feelings. There is more academic stress when the score is higher, and vice-versa.

Table 1: Reliability Statistics

Component	Cronbach's Alpha Coefficient	Number of Items
Inadequate academic environment	0.956	1, 2, 3, 4, 5, 6, 7 & 8
Lack of adjustment	0.963	9, 10, 11, 12, 13, 14, 15 & 16
Personal inadequacy	0.933	17, 18, 19, 20, 21, 22, 23 & 24
Interpersonal issue	0.947	25, 26, 27, 28, 29, 30, 31 & 32
Fear of failure	0.973	33, 34, 35, 36, 37, 38, 39 & 40
Overall	0.918	All Items

Statistical Techniques Used

The software program SPSS-23 was used to treat the data. To check the assumption of normal distribution, skewness, and kurtosis values were tested. After verifying the normalcy assumptions, the parametric statistical test for the statistical significance of each hypothesis analysis has been evaluated by computing the t-test value, and Pearson's correlation analysis was employed to ascertain the correlation between academic stress and personal variables among senior secondary madarsa students. In addition, the scale's reliability was confirmed through an internal consistency test with the help of Cronbach's alpha. The percentage was also calculated to gauge the academic stress level of students.

Analysis, Interpretation, and Discussions

The study's statistical analysis results are presented in tables, focusing on the specific research problems related to academic stress among senior secondary madarsa students.

Descriptive Statistics

Table 2: Descriptive Statistics for Academic Stress (N=105)

Component	Min	Max	Mean	SD	Skewness	Kurtosis
Inadequate academic environment	1.00	5.00	2.138	1.256	1.074	-.290
Lack of adjustment	1.00	5.00	2.536	1.395	.505	-1.474
Personal inadequacy	1.00	5.00	2.625	1.224	.558	-1.053
Interpersonal issue	1.00	5.00	2.502	1.264	.424	-1.537
Fear of failure	1.00	5.00	3.069	1.431	-.300	-1.777
Overall	1.00	5.00	2.574	0.736	-.192	-.712

Table 2 displays the descriptive data on academic stress. The normality analysis of data was conducted using skewness and kurtosis measures. The skewness and kurtosis scores are below almost 1.074, indicating that the data is normally distributed. According to Joreskog (2001), the variable's total score confirmed the assumption of a normal distribution with estimated skewness and kurtosis values less than +1.96 (ranging from -1.96 to +1.96). Thus, it is concluded that the data obtained from the academic stress questionnaire are widely distributed.

Level of Academic Stress

Table 3: Level of Academic Stress of Madarsa Students *(in %)*

Dimension	Academic Stress			
	Low	Mild	Moderate	High
Inadequate academic environment	52.74	12.98	15.24	19.05
Lack of adjustment	41.67	11.90	17.5	28.93
Personal inadequacy	36.55	11.90	22.02	29.52
Interpersonal issue	41.79	9.40	17.02	31.79
Fear of failure	27.5	11.55	13.33	47.62
Overall	40.05	11.55	17.02	31.38

Figure 1: Level of Academic Stress of Madarsa Students

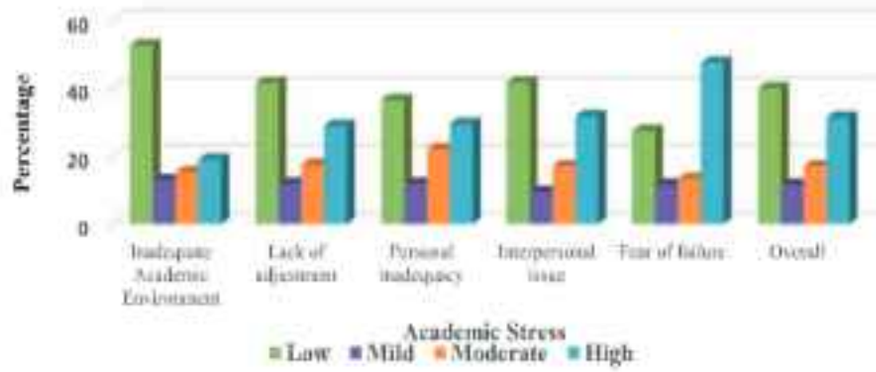

Table 3 & Figure 1 delineate the distribution of academic stress categorized into four distinct levels (low, mild, moderate, and high) corresponding to each dimension. According to the above table (No. 3) findings, 52.74 percent indicated low levels, 12.98 percent reported mild levels, 15.24 percent reported moderate levels, and 19.05 percent reported high levels of academic stress on component inadequate academic environment. Another component lack of adjustment, predominantly results in low stress for 41.67 percent of madarsa students, while a notable fraction reports experiencing high stress (28.93%). Similarly, 36.55 percent felt low stress, 11.90 percent felt mild stress, 22.02 percent felt moderate stress and 29.52 percent felt high levels of stress for personal inadequacy. Furthermore, interpersonal issues manifest as low stress for 41.79 percent of madarsa students, mild stress for 9.40

percent, moderate stress for 17.02, and high stress for 31.79, thereby indicating a significant concern regarding student-teacher dynamics. Notably, the apprehension of failure emerges as a more pronounced stressor, as 27.5 percent of madarsa students report low stress, 11.55 percent report mild stress, 13.33 percent report moderate stress, and 47.62 percent report high stress in this domain, representing the highest degree of high stress among all assessed categories. Collectively, academic stress is predominantly low for 40 percent of madarsa students, while high stress is observed in 31.38 percent of the sample. These findings imply that although low levels of academic stress are widespread across various dimensions as well as collectively. However, the fear of failure component is found significantly high levels of stress. This heightened fear may be attributed to students' high academic expectations, societal pressures, and the inherent uncertainties in their academic journey and prospects, often compounded by limited resources and guidance.

Gender Differences and Academic Stress

Table 4: Gender Differences in Academic Stress of Madarsa Students (N-105)

***Significance: p<.01, *Significance: p<.05*

Dimension	Gender	N	Mean	SD	t-value	p-value
Inadequate academic environment	Boys	53	2.70	1.21	5.118**	.000
	Girls	52	1.57	1.04		
Lack of adjustment	Boys	53	2.89	1.42	2.737**	.007
	Girls	52	2.17	1.28		
Personal inadequacy	Boys	53	3.29	1.19	6.639**	.000
	Girls	52	1.95	0.84		
Interpersonal issue	Boys	53	2.75	1.32	2.078*	.040
	Girls	52	2.25	1.16		
Fear of failure	Boys	53	3.45	1.28	2.813**	.006
	Girls	52	2.69	1.49		
Overall	Boys	53	3.01	0.53	7.750**	.000
	Girls	52	2.13	0.64		

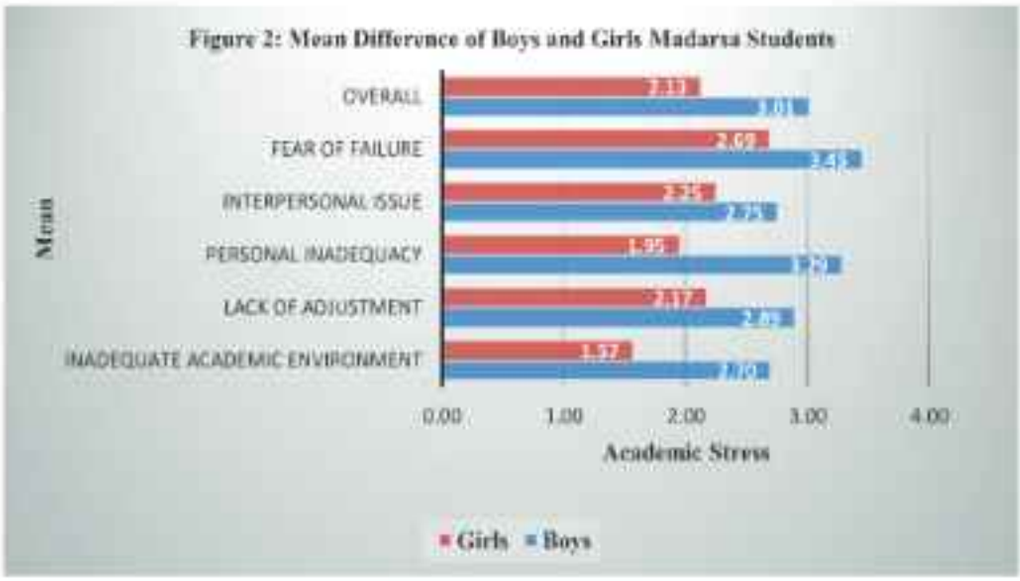

Table 4 & Figure 2 elucidates the gender-based variances in academic stress among senior secondary madarsa students along with a number of its dimensions. The above table (No. 4) reveals that senior secondary boys and girls madarsa students experience significantly different levels of academic stress (t=7.750, p<.01), as well as for the different dimensions of inadequate academic environment (t=5.118, p<.01), lack of adjustment (t=2.737, p<.01), personal inadequacy (t=6.639, p<.01), interpersonal issue (t=2.078, p<.05) and fear of failure (t=2.813, p<.01). Interestingly, the mean scores of senior secondary boys madarsa students are higher than those of girls in totality and across dimensions, including inadequate academic environment, lack of adjustment personal inadequacy, interpersonal issue and fear of failure. This result indicates that senior secondary boys' students experience a higher cumulative amount of academic stress, which might be brought on by parents having higher expectations for boys than for girls. Another reason may be boys face additional or unique pressures within the madarsa setting. In contrast to males, who are said to be less focused and more interested in leisure activities, girls' pupils are highly serious about their academics, do assignments on time, and pay attention in class. The result aligns with previous research by Kumar et al. (2011), Dhull & Kumari (2015), and Ghatol (2021), who stated that boys experience higher academic stress than girls. The current study's finding is in contradiction with the results of the studies conducted by Govaerts & Gregoire (2004), Sulaiman et al. (2009), and Kumar & Bhukar (2013), who reported that females experienced higher levels of stress than males. However, the study of Kumari & Gartia (2012), Khan et al. (2013), Bartwal & Singh (2014), and Simmi (2015) reported that male and female students' stress

levels do not differ statistically significantly. This result leads to the rejection of the stated null hypothesis (HO_1), "Boys and girls among senior secondary madarsa students would not differ significantly on overall academic stress and its various subscales viz. inadequate academic environment, lack of adjustment, personal inadequacy, interpersonal issues, and fear of failure" is rejected.

Relationship between Personal Variables and Academic Stress

Table 5: Coefficient of Correlation (r) Between Personal Variables and Academic Stress

Variable	r-value	p-value	Significance
Gender	-.607**	0.000	Significant
Nativity	-.341**	0.000	Significant
Father's Education	-.081	0.411	Insignificant
Father's Occupation	-.318**	0.001	Significant
Mother's Education	-.273**	0.005	Significant
Mother's Occupation	.287**	0.003	Significant
Class 10th Exam Marks	-.031	0.765	Insignificant

***Correlation is significant at 0.01 level, *Correlation is significant at 0.05 level*

Table 5 investigates the association between academic stress (dependent) and personal variables (independent) of senior secondary madarsa students, employing Pearson's correlation coefficients (r) as a metric for assessing the relationships. It can be seen from the above table (No. 5) that personal variables like gender (r=-.607, p<.01), nativity (r=-.341, p<.01), father's occupation (r=-.318, p<.01) and education of the mother (r=-.273, p<.01) have p-value less than 0.01. These personal variables have a negative correlation with the academic stress of senior secondary level madarsa students. Further, the study found a significant positive correlation between the occupation of the mother (r=.287, p<.01) and the academic stress of these students. However, there is no apparent relationship between senior secondary madarsa students' academic stress and their father's education as well as their class 10th exam marks. It can be concluded that factors such as gender, nativity, occupation of father, mother's education and occupation significantly influence the academic stress experienced by senior secondary madarsa students, whereas the father's education and marks of class 10th exams do not exhibit notable associations with this phenomenon. The findings contradict the claim of Kumari & Gartia (2012) who found that academic stress is not influenced by gender. Likewise, Bartwal & Singh (2014) reported similar results that gender and nativity do not impact academic stress. Thus, the stated null hypothesis (HO_2), "There exists no significant relationship between personal variables and academic stress of senior secondary madarsa

students" is rejected, except for the father's education and class 10th exam marks.

Conclusion

Students experience a variety of academic stresses during the academic year, and gender variations significantly influence students' awareness and response to these stressors. The present study examines academic stress among senior secondary madarsa students in Aligarh district, Uttar Pradesh. The study explored the overall low academic stress levels among senior secondary madarsa students. However, fear of failure component has significantly high stress among them. Further, the findings revealed that senior secondary students in madarsa, both boys and girls, experience varying levels of academic stress across various dimensions (i.e. inadequate academic environment, lack of adjustment, personal inadequacy, interpersonal issue, and fear of failure), with boys experiencing a higher cumulative amount of academic stress. Additionally, the academic stress experienced by senior secondary madarsa students is significantly influenced by factors such as gender, nativity, father's occupation, mother's education and occupation. However, no correlation was observed between the academic stress experienced by senior secondary madarsa students and their father's educational background as well as their class 10 exam scores.

Recommendation

The present study underscores the need for research on academic stress among madarsa students, examining factors such as socio-economic status, parental engagement, school efforts, government financial aid, and personal coping strategies. The study reveals gender variations in stress levels among madarsa students, suggesting the exploration of gender-sensitive approaches to address academic stress. Madarsa can improve the academic environment and reduce exam fear by implementing gender-specific stress management resources and supportive teacher-student relationships. Further, the study recommends the implementation of specific educational policies, counselling interventions, and stress-management programs in madarsa settings, in line with the National Education Policy (2020). Moreover, longitudinal studies may be conducted to monitor madarsa pupils' stress levels and the long-term effects they have on their academic performance and mental health or psychological well-being.

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REIMAGINING TEACHER EFFECTIVENESS IN THE AGE OF AI: INSIGHTS FROM A QUALITATIVE STUDY ON CHATGPT INTEGRATION

Aafiya Hamid[1]
Hakeema Khatoon[2]
Nazneen Fatima[3]
Syed Noor-ul-Amin[4]
Mohammad Iqbal Mattoo[5]

Abstract

In November 2022, Open Artificial Intelligence (AI) introduced the contentious generative AI tool known as ChatGBT-plus or ChatGPT-4 (Chat Generative Pretrained Transformer), which became accessible to users through the internet in February 2023. This study examines the utilization of ChatGPT by university teachers in Kashmir, India, along with its possible advantages and disadvantages. The primary objective is to comprehend the experiences and viewpoints of faculty members concerning the incorporation of ChatGPT's into their teaching and learning techniques. For this research, a qualitative research approach was employed. The data was collected via a self-constructed open-ended questionnaire. This study examined many aspects of accessing ChatGPT at the university level. The questionnaire was distributed online using a Google Form. The data was gathered, organized, and examined using theme analysis (Sandler et al., 2019). In the analysis phase, we initially prepared and structured the data, transcribed it, familiarized ourselves with the data corpus, assigned codes to the full dataset, and ultimately generated categories and themes from the underlying coded excerpts. After the data was analysed, three themes emerged. It is clear from the results that tech-savvy Teachers frequently support the use of AI in the classroom. To teach teachers how to use AI technologies like ChatGPT successfully, professional development is necessary. ChatGPT is viewed by many educators as a tool to improve learning. Over-reliance on AI worries some teachers because it may stifle academic integrity and critical thinking. Educators are concerned that students may use ChatGPT to create assignments, which might result in problems with originality. In an AI-driven age, it calls into question how to evaluate student learning in a meaningful way. The findings offer important suggestions that academics, educators, and policymakers may use to enhance educational outcomes by leveraging artificial intelligence systems.

Keywords: Teacher Effectiveness, Chat GPT, Teachers, Artificial Intelligence, Qualitative Study

Introduction

Russel & Norvig (2010) John McCarthy coined the phrase "artificial intelligence" in 1956. Baker and Smith (2019) pointed out that AI does not relate to a particular technology but is stated as "computers that perform cognitive tasks, usually associated with human minds, particularly learning and problem-solving" (p.10).

[1,2] Research Scholar, Department of Education, University of Kashmir,
[4] Assistant Professor, Department of Education, University of Kashmir
[5] Dean &Head Faculty of Education, KBN University Gulbarga – Karnataka

Artificial Intelligence's (AI) rapid development is drastically changing a number of industries, including education. Classrooms are progressively implementing AI-driven technology to improve teaching and learning, such as virtual assistants, automated grading tools, and adaptive learning systems (Luckin et al., 2018). Among these innovations, the potential of ChatGPT, an advanced language model created by OpenAI, to produce responses that resemble those of a human, offer immediate feedback, and assist with lesson preparation has drawn a lot of interest. Examining the impact of AI integration on teacher effectiveness is crucial as the technology continues to transform education.

AI's Expanding Role in Education

By facilitating personalised learning, expediting administrative tasks, and providing real-time academic support, artificial intelligence is transforming education (Holmes et al., 2019). AI can evaluate students' progress and customise learning materials to fit each student's needs using adaptive learning platforms (Zawacki-Richter et al., 2019). AI-powered tools also assist with grading, content creation, and interactive learning. However, despite these technological advancements, AI cannot replace the essential human aspects of teaching, such as emotional intelligence, mentorship, and ethical reasoning. Consequently, a deliberate balance approach between technical innovations along with human-centered pedagogy is required when integrating AI into education.

ChatGPTs Potential and Its Impact on Teaching

As an AI-powered conversational model, ChatGPT offers various applications in education. It supports teachers by generating lesson plans, summarizing complex topics, creating quizzes, and delivering instant feedback to students (Kasneci et al., 2023). Furthermore, it can serve as a virtual mentor to help learners comprehend issues, generate creative solutions, and polish their work. Concerns regarding academic integrity, an over-reliance on artificial intelligence, and the possible dissemination of false material must be addressed in spite of these benefits (Zhai, 2022). Therefore, it is crucial to understand how instructors can effectively integrate ChatGPT into their instruction without compromising educational values. As AI continues to reshape the educational landscape, teachers remain central to fostering critical thinking, creativity, and ethical awareness. This paper examines the impact of ChatGPT integration on teacher effectiveness by analysing educators' perspectives on its benefits, challenges, and pedagogical implications. By integrating AI responsibly, teachers can enhance their instructional approaches while preserving the fundamental human aspects of education.

The Importance of Teacher Effectiveness in the AI Era

Although AI can enhance instruction, teacher effectiveness remains a key determinant of meaningful learning outcomes. Skilled educators do more than deliver knowledge; they encourage critical thinking, nurture creativity, and provide ethical guidance (Darling-Hammond, 2020). In AI-integrated classrooms, teachers must not only master their subject matter but also effectively incorporate AI tools while preserving their role as facilitators of learning. They perform a critical part in helping students critically assess AI-generated information, navigate ethical dilemmas, and develop digital literacy skills (Selwyn, 2022). Additionally, teachers are responsible for ensuring AI-supported education is inclusive, equitable, and accessible to all learners.

Literature Review

The rapid progress of AI technologies has profound implications for teaching and learning as well. Zawacki- Richter et al. (2019) predict that AI-supported instruction will revolutionise education. According to Cope et al. (2020), significant efforts have been made to use AI into teaching and learning. The benefits of AI for educators and the difficulties they encounter in implementing AI in the classroom should be discussed in order to make AI pedagogically relevant. Furthermore, teachers' roles in the development of AI and their proficiency in its instructional application have proven to be quite difficult. Giving teachers the necessary information, abilities, and attitudes will enable them to carry out this integration. OpenAI's ChatGPT is one of the AI technologies that have drawn a lot of interest due to its possible uses in education. A useful tool for both teachers and students, ChatGPT is a sophisticated language model that can produce writing that appears human based on input it gets (Brown et al., 2020). By offering individualised learning experiences, real-time feedback, and assistance with administrative duties, ChatGPTs inclusion in higher education has the potential to completely transform conventional teaching approaches. These tools can assist teachers in customising their lesson plans to each student's needs, which will enhance learning outcomes Heffernan, (2020). Several research studies have explored the role of AI in education, highlighting the potential benefits and pitfalls associated with its adoption. Welskop (2023) remarked on ChatGPT's effects on higher education, emphasising the issues and difficulties surrounding its use. In order to guarantee the efficient and moral application of AI in education, the study underlined the necessity of tackling concerns like data privacy, academic integrity, and the digital literacy gap. In the context of Indian higher education, where institutional adoption of technology varies greatly, these issues are especially pertinent. Teachers play an orchestrating role in the process of teaching and learning, emphasised by Dillenbourg (2013) AI must first learn how to effectively orchestrate learning and teaching from teachers' data, before it can

genuinely assist teachers in such approach. This is because effective teaching depends on teachers' capability to implement appropriate pedagogical methods in their instruction. Regarding the use of technology, most teachers now recognize the importance of technology in teaching and learning activities. However, the integration of technology into courses is still difficult due to several factors, such as the school culture, availability of resources, and teachers' attitudes, knowledge, and skills. The development of teachers' expertise in using technology in the classroom is mostly the responsibility of the instructors themselves. AI is used in education to support and improve learning environments through the use of intelligent collaborative learning systems, intelligent tutoring systems, and intelligent agents. By reacting to students' demands through personalised learning platforms and providing real-time class status updates, AI assists teachers in making decisions. Furthermore, the educational system could be reshaped by AI. Rahm (2023) a recent influx of advancements in AI's potential and accessibility, such ChatGPT, has demonstrated the complex and long-standing link between technology and education.

Research Question

What is the perception among university teachers towards Teacher Effectiveness in the Age of Artificial Intelligence?

Methodology

This was a qualitative study to understand the perception of perception among university teachers towards Teacher Effectiveness in the Era of Artificial Intelligence in Kashmir. The researchers followed an exploratory approach in this study to fulfil the purpose of the study. It is used when a researcher has observed something and seeks to understand more about the problem.

Research Setting and Participants

Three universities from Kashmir that were offering Research courses were chosen purposively for this study. Thirty participants (University teachers) were selected through purposive and snowball techniques from these three Universities. Purposeful sampling was used first, and subsequently, snowball sampling was used to find more participants. This procedure was repeated until the required participants were selected. For those individuals who were easily available, a purposive sampling strategy was adopted. When researchers ran out of participants, the snowball sampling technique was used, and the only way to reach new participants was through the recommendations of existing study participants. They were selected through the following inclusion criteria: residents of Kashmir from

rural and urban areas, teaching in Universities in Kashmir. All participants were given assurance about their anonymity.

Findings:

Empowering Education: AI and ChatGPT as Learning Catalysts

Academic discussions clarify ChatGPT's intricate educational dynamics and tactical implementation, portraying it as a versatile tool that is changing the face of education. The integration of ChatGPT into academia represents a fundamental transformation in teaching and learning, rather than simply expanding the existing toolkit of educational resources. The use of AI in education enhances both technological proficiency and real-world sociocultural applications, particularly in environments where teachers are tech-savvy (Celik, 2023). The growing acceptance of ChatGPT in education signals a new pedagogical shift, leading to a reassessment of educational goals, content, methodologies, and purpose. Petko et al. (2018) highlighted that teachers' proactive readiness has been a key factor in the successful adoption of AI in education. Respondents observed that AI is expected to evolve harmoniously, integrating technological advancements with human-centered teaching approaches. ChatGPT's role in knowledge dissemination, content generation, and educational inclusivity underscores its significance in the academic sphere. Its rise reflects the rapid advancements in artificial intelligence within education. Teachers exhibited varying levels of awareness regarding AI in education. While some expressed optimism, many acknowledged AI's potentials to create dynamic, interactive learning environments and personalized learning experiences. In the Indian context, Vazhayil et al. (2019) reported that AI tools significantly reduced teachers' workloads and saved time. University educators remain optimistic about the future of AI tools like ChatGPT, recognizing their ability to enhance teaching, enrich learning, and improve academic outcomes. AI has also demonstrated high efficiency and accuracy in assessment and evaluation tasks (Zawacki-Richter et al., 2019). Additionally, Ryu and Han (2018) found that teachers in leading institutions acknowledged AI-powered education as a means to enhance student creativity. In education, the conversation around AI has shifted from fear to opportunity.

One university teacher (T1) was of the view that

> *"I've seen my students' future teachers embrace ChatGPT to design lesson plans, create engaging classroom activities, and even simulate student responses for discussion. They tell me that AI saves them time, allowing them to focus on improving their instructional strategies. What excites me most is how AI fosters creativity, not just efficiency"*

Another university teacher (T5)

> *"ChatGPT has transformed the way my students approach difficult concepts. Before, many of them struggled with synthesizing information from multiple sources. Now, they use AI to generate summaries, explore different perspectives, and refine their arguments before presenting them in class. Of course, I remind them to fact-check and think critically, but overall, AI has made learning more interactive and engaging".*

One university teacher (T3) opened up about her experience and said that initially, I was sceptical about using ChatGPT in my programming courses. However, I quickly realized that it helps students to understand complex concepts. Many of my students use AI to get alternative explanations for difficult concepts, which enhances their comprehension. I encourage them to use AI ethically asking it 'why' and 'how' rather than just copying answers. The key is guiding them toward critical thinking while leveraging AI's efficiency.

AI Over-Reliance: Eroding Student Learning and Originality

The study highlights growing concerns among educators regarding students' increasing dependence on AI tools in academic environments. AI-driven platforms like ChatGPT and intelligent tutoring systems provide valuable benefits, such as personalized learning, instant feedback, and assistance in idea generation. However, their use without proper moderation can lead to significant drawbacks (Ahmad et al., 2023; Johnson & Taylor, 2022). Many educators observed that students who consistently rely on AI tend to engage in passive learning, accepting AI-generated content without critically evaluating or fully grasping the concepts. This trend raises concerns about the depth of their understanding and overall academic development (Miller, 2024; Smith & Johnson, 2023). A key issue raised by participants is the decline in analytical reasoning and decision-making skills among students who heavily depend on AI for their coursework. Educators noted that excessive reliance on AI for problem-solving, and research diminishes students' engagement in essential cognitive processes, such as independent reasoning and creativity (Davis & Nguyen, 2023; Garcia, 2023). This dependency weakens their ability to formulate original arguments and express unique perspectives, ultimately impacting their ability to produce innovative and authentic work (Robinson & Patel, 2023). Another major concern is academic integrity and plagiarism. Educators reported that students often submit AI-generated content without making substantial revisions or adding personal insights, raising ethical issues regarding the authenticity of their work (Turner & Adams, 2024). Since AI-generated responses can closely resemble existing sources or previous outputs, institutions have noted increased plagiarism cases (Williams, 2023). As a result, stricter academic policies and the implementation of AI-detection tools have become necessary to maintain academic integrity (Johnson et al., 2022). Furthermore, the study found that institutional factors, access to AI tools, and students' digital literacy levels influence how AI is utilized in education (Robinson & Patel, 2023). While some students effectively use AI as a supplementary resource, others misuse it by over-relying on it for

completing assignments with minimal effort. Educators emphasized the need for AI education programs to help students develop the competencies required to utilize AI ethically and effectively while staying mentally engaged (Chen, 2022).

To address these challenges, educators proposed structured strategies that promote balanced AI integration. Suggested approaches include AI-assisted learning combined with critical reflection exercises, blended learning models that incorporate both traditional and AI-based methods, and workshops on ethical AI use (Davis & Nguyen, 2023). These measures aim to ensure that students develop essential academic competencies while still benefiting from AI as a supportive tool.

To conclude, although AI has the capacity to enhance education, its overuse may hinder student learning, originality, and cognitive development (Miller, 2024). To prevent these negative effects, a collaborative effort involving educators, institutions, and policymakers is essential to foster an educational environment where AI supports learning without replacing fundamental academic skills (Smith et al., 2023).

While discussing the drawbacks of AI, one of the university teacher (T27) said, "One of my biggest concerns is the diminishing originality in students' writing. Many rely on ChatGPT to rephrase existing ideas instead of developing their own perspectives. In sociology, critical thinking and unique viewpoints are crucial, yet I see an increasing number of research papers that lack personal voice. I now assign in class writing exercises where students have to develop arguments without AI assistance, reinforcing independent thought before they use AI for refinement."

> *One respondent (T8) also was of the view that "Philosophy thrives on deep reflection and argumentation, but I've noticed that students using AI often produce surface-level responses. AI can mimic philosophical reasoning, but it doesn't engage in true intellectual struggle. I've had students turn in essays that seem well-structured but lack depth. Now, I require them to submit drafts showing their own thought processes before they consult AI, ensuring that their final work is authentically their own."*

> *One of the university teacher (T13) Creativity is at risk when students over-rely on AI for writing assignments. I've read stories and poems that feel formulaic, lacking the emotional depth and originality that human creativity brings. AI can assist with grammar and structure, but it cannot replace authentic expression. To combat this, I have directed students to write first drafts entirely by hand sharing their own views before they refine their work with AI, keeping their originality intact."*

The Role of Professional Development in Effective AI Integration for Student Learning

The effective use of AI tools in education requires continuous professional development for educators to ensure meaningful student learning. Teachers must

acquire digital literacy and pedagogical strategies to integrate AI effectively, enhancing student engagement and critical thinking (Luckin et al., 2021). Research highlights that professional training in AI fosters adaptive teaching methods, allowing educators to personalize learning experiences and address diverse student needs (Zawacki-Richter et al., 2019). Without adequate professional development, AI tools risk being underutilized or misapplied, limiting their potential to improve learning outcomes (Holmes et al., 2022). Therefore, investing in educator training is essential for leveraging AI's transformative impact in education.

Integrating AI tools in education requires on-going professional development to ensure meaningful student learning. Educators must develop digital competencies and pedagogical strategies to leverage AI effectively, fostering critical thinking and engagement (Luckin et al., 2021). Research indicates that professional training enables adaptive teaching methods, allowing for personalized learning experiences that cater to diverse student needs (Zawacki-Richter et al., 2019). Without proper training, AI tools may be misapplied, limiting their potential to enhance learning outcomes (Holmes et al., 2022). Therefore, investing in professional development is crucial for maximizing AI's impact on education.

"When AI tools were first introduced at our university, many of us struggled to integrate them effectively. It wasn't until we attended structured professional development sessions that we began to see their true potential. Learning about AI-driven assessment methods helped me create personalized learning pathways for my students, leading to increased engagement and improved outcomes.

> *Another participant (P30) stated that "Our university encourages AI use, but there's no official training program. We're expected to figure it out on our own, which is overwhelming given our workload".*

> *One university teacher (P21) asserted that "I see potential in AI for personalized learning, but without training, I struggle to implement AI-driven strategies effectively. Students expect us to be tech-savvy, but we're left to experiment without guidance".*

> *one of the university teacher (P17) said, "AI training should be a part of teacher education programs. Right now, it's an add-on rather than an essential skill. If we integrate AI learning into faculty development programs, more teachers will feel confident using it".*

Conclusion

The integration of AI tools like ChatGPT into university classrooms is reshaping traditional teaching methods, prompting a re-evaluation of what it means to be an

effective educator in the digital age. While AI offers undeniable benefits such as enhanced student engagement, personalized learning support, and efficiency in administrative tasks it also presents critical challenges that demand thoughtful consideration.

One of the most significant implications is the shifting role of teachers from sole knowledge providers to facilitators of critical thinking and ethical AI usage. As AI automates information retrieval and synthesis, educators must place greater emphasis on fostering analytical skills, creativity, and intellectual independence. Over-reliance on AI risks diminishing students' ability to engage deeply with complex subjects, potentially leading to superficial learning and a decline in original thought. Thus, effective teachers in the AI era must strike a delicate balance between leveraging AI's capabilities and ensuring students develop autonomous reasoning skills.

Moreover, the ethical and pedagogical concerns surrounding AI integration cannot be overlooked. While AI can democratize access to knowledge, it also raises concerns about academic integrity, data privacy, and algorithmic biases. Teachers must therefore develop strategies to guide students in using AI responsibly—encouraging transparency, proper attribution, and critical engagement with AI-generated content rather than passive acceptance.

Finally, reimagining teacher effectiveness in the age of AI requires institutional support and professional development. Universities must equip educators with the skills and frameworks needed to integrate AI meaningfully into their pedagogy. This includes designing assessments that go beyond AI's capabilities, fostering human-AI collaboration, and continuously adapting teaching practices in response to technological advancements.

Ultimately, while AI is a powerful tool for enhancing education, it cannot replace the human elements of teaching—mentorship, empathy, and the ability to inspire critical inquiry. The most effective educators will be those who embrace AI not as a substitute for expertise, but as an enabler of deeper learning, ethical reasoning, and intellectual growth in students. As AI continues to evolve, the role of educators will remain indispensable—not in delivering content, but in cultivating the next generation of thoughtful, ethical, and innovative thinkers.

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UNVEILING THE MIND'S MIRROR: EXPLORING METACOGNITION AND ITS IMPACT ON LEARNING AND DECISION MAKING

Owaise Jan Kirmani[1]
Altaf Ahmad Sheikh[2]
Manzoor Ahmad Rather[3]

Abstract

This research paper delves into the intricate workings of metacognition, the process by which individuals monitor and regulate their own thinking. Metacognition plays a pivotal role in learning and decision making, as it enables individuals to understand their cognitive processes, identify strategies for learning, and assess the effectiveness of those strategies. Through an extensive review of existing literature and empirical studies, this paper explores various facets of metacognition, including its components, developmental aspects, and its implications for educational practices and decision making in various contexts. Furthermore, it investigates the role of metacognition in problem-solving, critical thinking, and self-regulation. Additionally, this paper examines the role of metacognitive interventions in enhancing learning outcomes and improving decision-making skills across different age groups. By shedding light on the significance of metacognition, this research aims to provide valuable insights for educators, psychologists, and policymakers to foster metacognitive development and promote effective learning and decision-making strategies.

Keywords: Metacognition, Decision Making, Cognitive Processes, Educational Practices, Interventions.

Introduction

Metacognition, often described as "thinking about thinking," is a multifaceted construct that underpins human cognition and behavior(Zdybel, 2021). It encompasses a range of cognitive processes involved in monitoring, evaluating, and regulating one's own thinking and learning activities. The ability to reflect on one's cognitive processes, set goals, and deploy appropriate strategies is central to metacognition and has far-reaching implications for learning and decision making

[1,2] Research Scholars, Department of Education, University of Kashmir
[3]Associate Professor, Department of Education, University of Kashmir

across various domains(Bednar et al., 2013).

Understanding metacognition is essential for unraveling the complexities of human cognition and behavior. It allows individuals to gain insight into their cognitive strengths and weaknesses, identify effective learning strategies, and adaptively adjust their approaches to tasks and challenges. Moreover, metacognitive skills are closely intertwined with other cognitive processes such as problem-solving, decision making, and self-regulation, making them indispensable for success in academic, professional, and everyday contexts(Muijs & Bokhove, 2020).

This paper aims to explore the concept of metacognition in depth, examining its theoretical foundations, components, developmental trajectories, and practical implications for education and decision making. By synthesizing findings from empirical research and theoretical frameworks, this paper seeks to elucidate the mechanisms underlying metacognitive processes and their impact on learning and decision making.

Research Objectives

1. To explore various facets of metacognition, including its components, developmental aspects, and its implications for educational practices
2. To investigate the role of metacognition in problem-solving, critical thinking, and self-regulation
3. To examine the role of metacognitive interventions in enhancing learning outcomes and improving decision-making across different age groups.

Methodology

A comprehensive review of existing literature on Meta- cognition, drawing from academic databases, research articles, books, and other relevant sources has been carried out. This review will provide a foundational understanding of the current state of knowledge regarding Meta-Cognition and its impact on Learning and Decision Making.

Future Directions: Provide recommendations for future research based on the findings of the study, intervention studies to evaluate the efficacy of Meta-Cognition and

interdisciplinary research collaborations in enhancing Learning outcomes and improving Decision Making across different Age Levels,

Components of Metacognition

Metacognition encompasses a range of cognitive processes that operate at different levels of awareness and control(Lai, 2011). The components of metacognition can be broadly categorized into two main aspects: metacognitive knowledge and metacognitive regulation.

1) Metacognitive Knowledge:

Metacognitive knowledge refers to what individuals know about their own cognitive processes, strategies, and abilities. It includes:

A) **Declarative Knowledge**: This aspect involves knowledge about oneself as a learner and about cognitive tasks. It includes awareness of one's strengths and weaknesses, understanding of different learning strategies, and knowledge about factors that influence learning outcomes. For example, a student might recognize that they learn best through visual aids or that they struggle with remembering information presented orally.(Chi & Ohlsson, 2005)

B) **Procedural Knowledge**: Procedural knowledge pertains to the understanding of how cognitive processes work and how to use strategies effectively. It includes knowledge of specific cognitive strategies, such as rehearsal, elaboration, or mnemonics, and how to apply them in different contexts. For instance, a student might know how to use the "chunking" strategy to remember a long list of items or how to break down a complex problem into smaller, more manageable parts(Chan Kim & Mauborgne, 1998).

C) **Conditional Knowledge**: Conditional knowledge involves knowledge about when and why to use specific cognitive strategies. It includes awareness of the context, task demands, and personal goals that influence the selection and application of strategies. For example, a student might understand that different types of tasks require different problem-solving approaches or that certain study techniques are more effective for long-term retention(Lorch et al., 1993).

2) Metacognitive Regulation:

Metacognitive regulation refers to the processes through which individuals monitor, control, and adapt their cognitive activities to achieve their learning goals(Cera et al., 2013). It includes:

A) **Planning**: Planning involves setting goals, selecting strategies, and allocating resources to achieve those goals. It encompasses activities such as setting study schedules, organizing study materials, and creating outlines or mind maps. Effective planning helps individuals structure their learning activities and optimize their use of time and resources(Lin, 2001).

B) **Monitoring**: Monitoring involves keeping track of one's cognitive processes,

performance, and progress toward goals. It includes self-assessment of comprehension, awareness of task difficulty, and recognition of errors or misunderstandings. Monitoring allows individuals to detect discrepancies between their current understanding and their learning goals, prompting them to adjust their strategies accordingly(Fiedler et al., 2019).

C) **Evaluation**: Evaluation involves assessing the effectiveness of one's cognitive strategies and making judgments about the quality of learning outcomes. It includes reflecting on the success or failure of strategies used, identifying areas for improvement, and attributing outcomes to specific actions or factors. Effective evaluation enables individuals to refine their metacognitive knowledge and regulate their future learning activities more efficiently(Baas et al., 2015).

These components of metacognition work together to enable individuals to monitor, control, and optimize their cognitive processes, ultimately enhancing their learning outcomes and decision-making abilities. By developing metacognitive skills, individuals can become more self-directed learners, capable of adapting to new challenges and achieving greater success in academic, professional, and personal contexts(Brandt, 2020).

Developmental aspects of metacognition

The developmental aspects of metacognition highlight how metacognitive skills evolve across different stages of development, from childhood to adulthood(Schneider et al., 2022). Understanding these developmental trajectories is essential for educators and researchers to design appropriate interventions and support strategies. Here's an overview:

1) Early Childhood (Preschool to Early Elementary School):

Metacognitive skills are rudimentary and emergent during this stage.

Children begin to develop basic metacognitive awareness, such as recognizing when they know or don't know something

- They may demonstrate simple metacognitive strategies, such as asking questions, seeking help. They may demonstrate simple metacognitive strategies, such as asking questions, seeking help, or using trial-and-error approaches.
- Metacognitive development is heavily influenced by social interactions and scaffolding from adults, caregivers, and peers.

2) Middle Childhood (Late Elementary to Middle School):

- Metacognitive skills become more refined and deliberate during this stage.
- Children develop a deeper understanding of their cognitive processes and begin to use more sophisticated metacognitive strategies.
- They demonstrate improved self-regulation and planning abilities, such as setting goals, organizing tasks, and monitoring their progress

- Metacognitive development is supported by formal education and opportunities for independent learning and problem-solving.

3) Adolescence (High School to Early Adulthood):

Metacognitive skills continue to develop and consolidate during adolescence.

- Adolescents become increasingly aware of their cognitive strengths and weaknesses, as well as the strategies that work best for them in various contexts.
- They exhibit enhanced metacognitive regulation, including more strategic planning, monitoring, and evaluation of their learning processes
- Metacognitive development is influenced by academic demands, peer interactions, and self-directed learning experiences.

4) Adulthood:

- Metacognitive skills continue to mature and adapt throughout adulthood.
- Adults demonstrate a sophisticated understanding of their cognitive abilities and an expanded repertoire of metacognitive strategies.
- They exhibit greater autonomy and self-direction in their learning and decision-making processes, drawing upon years of experience and reflection.
- Metacognitive development is influenced by ongoing learning experiences, professional demands, and personal goals.
- Throughout these developmental stages, metacognition interacts with other cognitive and socio-emotional processes, shaping individuals' learning trajectories and decision-making abilities. Educators can support metacognitive development by providing explicit instruction, fostering reflection and self-awareness, and creating opportunities for practice and feedback. By nurturing metacognitive skills from an early age and scaffolding their development over time, individuals can become more effective learners and decision makers, capable of adapting to the complexities of the modern world.

Metacognition implications for educational practices and decision making

Metacognition has profound implications for both educational practices and decision making, influencing how individuals learn, problem-solve, and make informed choices(Conley, 2014). Here are some key implications:

1) Educational Practices:

A) **Teaching Metacognitive Strategies**: Educators can explicitly teach metacognitive strategies to students, empowering them to monitor, regulate, and optimize their learning processes. This can include instruction on goal-setting, planning, monitoring comprehension, and evaluating learning outcomes.(Sheikh et al., n.d.)

B) **Reflective Practices:** Encouraging reflective practices, such as journaling, self-

assessment, and peer feedback, helps students develop metacognitive awareness and deepen their understanding of their own learning strengths and weaknesses.

C) **Scaffolding Learning Tasks**: Providing scaffolding and support during learning tasks allows students to gradually develop metacognitive skills. Teachers can model metacognitive processes, provide prompts for reflection, and offer guidance as students learn to navigate complex tasks independently.(Shahla et al., n.d.)

D) **Promoting Metacognitive Dialogue**: Creating opportunities for metacognitive dialogue in the classroom encourages students to articulate their thinking processes, share strategies, and learn from each other's perspectives. Peer discussions and collaborative problem-solving activities can enhance metacognitive development.(jan Kirmani, n.d.)

E) **Assessing Metacognitive Competence**: Incorporating assessments of metacognitive competence into educational practices allows educators to evaluate students' ability to monitor, regulate, and adapt their learning strategies. Formative assessments, self-assessments, and portfolio evaluations can provide valuable insights into students' metacognitive development.

2) Decision Making:

A) **Enhanced Problem-Solving**: Metacognitive skills enable individuals to approach decision-making tasks strategically, considering multiple options, evaluating potential outcomes, and adjusting their strategies as needed. By reflecting on their decision-making processes, individuals can improve their problem-solving abilities and make more informed choices.

B**) Risk Management**: Metacognition plays a crucial role in risk assessment and risk management, allowing individuals to anticipate potential risks, weigh alternative courses of action, and make decisions that minimize negative consequences. By considering the uncertainty and complexity of decision-making contexts, individuals can mitigate risks and make more adaptive choices.(Kirmani & Sheikh, n.d.)

C) **Critical Thinking**: Metacognitive awareness fosters critical thinking skills, enabling individuals to question assumptions, evaluate evidence, and consider alternative perspectives. By reflecting on their own biases, assumptions, and decision-making heuristics, individuals can make more reasoned and evidence-based decisions.

D) **Self-Regulation**: Metacognitive regulation helps individuals regulate their emotions, impulses, and behaviors in decision-making contexts. By monitoring their cognitive and affective states, individuals can exert greater self-control, resist impulsivity, and make decisions that align with their long-term goals and values.

E) **Continuous Learning**: Metacognitive reflection promotes a growth mindset and

a willingness to learn from both successes and failures. By embracing feedback, seeking out new information, and reflecting on past decisions, individuals can continuously improve their decision-making skills and adapt to changing circumstances.

In summary, metacognition informs both educational practices and decision making by empowering individuals to monitor, regulate, and adapt their cognitive processes. By integrating metacognitive strategies into teaching and learning environments and applying metacognitive principles to decision-making contexts, individuals can become more effective learners, problem solvers, and decision makers, capable of navigating the complexities of the modern world with confidence and resilience.

Role of Metacognition in Problem Solving

The role of metacognition in problem solving is fundamental, as it influences how individuals approach, monitor, and adapt their problem-solving strategies. Metacognition facilitates a deeper understanding of the problem-solving process and empowers individuals to tackle complex challenges more effectively(Tachie, 2019). Here's how metacognition influences problem solving:

Planning and Goal Setting: Metacognition enables individuals to set clear goals and develop strategic plans to achieve them. By reflecting on the problem at hand and considering various approaches, individuals can select appropriate problem-solving strategies and allocate resources efficiently.

Monitoring Progress: Metacognitive monitoring allows individuals to assess their progress toward solving a problem. By continuously monitoring their cognitive processes, individuals can identify potential obstacles, detect errors, and evaluate the effectiveness of their problem-solving strategies in real time.

Flexibility and Adaptability: Metacognition fosters flexibility and adaptability in problem solving by encouraging individuals to consider alternative approaches and adjust their strategies as needed. By reflecting on their progress and outcomes, individuals can revise their plans, explore new perspectives, and overcome unexpected challenges more effectively.

Error Detection and Correction: Metacognitive awareness enables individuals to recognize errors and misconceptions in their problem-solving process. By reflecting on their reasoning and considering feedback from others, individuals can identify and correct misunderstandings, leading to more accurate and effective problem-solving outcomes.

Self-Regulation: Metacognition promotes self-regulation in problem solving by helping individuals manage their cognitive resources, regulate their emotions, and

maintain focus and persistence in the face of difficulty. By monitoring their attention, motivation, and confidence levels, individuals can stay engaged and motivated throughout the problem-solving process.

Reflection and Learning: Metacognition encourages reflection and learning from problem-solving experiences. By evaluating their strategies, analyzing their successes and failures, and extracting key insights, individuals can refine their problem-solving skills and apply them to future challenges more effectively.(Kirmani & Sheikh, n.d.)

Transfer of Learning: Metacognitive skills facilitate the transfer of problem-solving strategies across different domains and contexts. By recognizing patterns, identifying underlying principles, and generalizing their problem-solving experiences, individuals can apply their knowledge and skills to new and unfamiliar situations.

Overall, metacognition plays a crucial role in problem solving by empowering individuals to plan, monitor, regulate, and adapt their cognitive processes. By fostering metacognitive awareness and skills, educators and practitioners can enhance individuals' problem-solving abilities and equip them with the tools they need to navigate complex challenges in various domains.

Role of Metacognition in Critical Thinking

Metacognition plays a vital role in critical thinking by providing individuals with the cognitive tools and strategies necessary to evaluate information, analyze arguments, and make reasoned judgments(Rivas et al., 2022). Here's how metacognition influences critical thinking:

1) **Awareness of Thinking Processes**: Metacognition enables individuals to become aware of their own thinking processes, including biases, assumptions, and cognitive shortcuts. By reflecting on their thoughts and beliefs, individuals can identify potential sources of bias or fallacious reasoning that may impact their critical thinking.

2) **Monitoring and Self-Reflection**: Metacognitive monitoring allows individuals to assess the quality and validity of their reasoning processes. By continuously monitoring their thinking and evaluating the evidence and arguments they encounter, individuals can identify inconsistencies, gaps in reasoning, or areas where further investigation is needed.

3) **Regulation of Cognitive Strategies**: Metacognition enables individuals to regulate their cognitive strategies to support critical thinking. By selecting appropriate problem-solving techniques, evaluating alternative viewpoints, and considering the implications of different arguments, individuals can optimize their

critical thinking processes.

4) **Evaluation of Evidence**: Metacognition facilitates the evaluation of evidence and the assessment of its relevance, reliability, and credibility. By reflecting on the sources of information, considering the context in which it was produced, and examining the strength of the evidence supporting different claims, individuals can make more informed judgments.

5) **Reflection on Assumptions and Biases**: Metacognition encourages individuals to reflect on their own assumptions, biases, and preconceptions that may influence their critical thinking. By acknowledging and challenging these biases, individuals can approach problems with greater objectivity and open-mindedness, leading to more robust and reasoned conclusions.

6) **Problem-Solving and Decision Making**: Metacognitive skills support critical thinking by facilitating problem-solving and decision-making processes. By applying systematic approaches to analyze problems, generate alternative solutions, and weigh the pros and cons of different options, individuals can make more informed and reasoned decisions.

7) **Transfer of Learning**: Metacognition promotes the transfer of critical thinking skills across different domains and contexts. By reflecting on their problem-solving experiences, extracting underlying principles, and generalizing their knowledge and skills, individuals can apply critical thinking strategies to new and unfamiliar situation.

Overall, metacognition enhances critical thinking by fostering awareness, monitoring, regulation, and reflection on one's own thinking processes. By developing metacognitive skills, individuals can become more effective critical thinkers, capable of evaluating information critically, making reasoned judgments, and navigating complex problems and decision-making situations with confidence and clarity(Rivas et al., 2022).

Role of Metacognition in Self-Regulation

Metacognition plays a crucial role in self-regulation by enabling individuals to monitor, control, and adapt their cognitive processes, emotions, and behaviors to achieve their goals effectively(Cera et al., 2013). Here's how metacognition influences self-regulation:

1) **Monitoring Cognitive Processes**: Metacognition allows individuals to monitor their own cognitive processes, including attention, comprehension, memory, and problem-solving. By assessing their current level of understanding, awareness, and engagement, individuals can identify areas where they need to focus their efforts and allocate their cognitive resources more efficiently.

2) **Regulation of Learning Strategies**: Metacognition enables individuals to regulate their learning strategies to optimize their performance and achieve their learning goals. By selecting appropriate study techniques, organizing information effectively, and managing their study time, individuals can enhance their learning outcomes and retention of information.

3) **Goal Setting and Planning**: Metacognition supports self-regulation by helping individuals set clear goals and develop strategic plans to achieve them. By reflecting on their long-term objectives, breaking them down into manageable tasks, and setting deadlines and milestones, individuals can create a roadmap for success and stay focused on their priorities.

4) **Emotion Regulation**: Metacognition facilitates emotion regulation by helping individuals monitor and understand their emotional states in relation to their goals and tasks. By recognizing when their emotions are interfering with their ability to focus or perform effectively, individuals can employ coping strategies such as relaxation techniques, positive self-talk, or cognitive reappraisal to manage their emotions and maintain their motivation and perseverance.

5) **Adaptation and Flexibility**: Metacognition promotes adaptability and flexibility in self-regulation by encouraging individuals to adjust their strategies and behaviors in response to changing circumstances or feedback. By monitoring their progress, evaluating the effectiveness of their approaches, and making timely adjustments as needed, individuals can navigate obstacles and setbacks more effectively and stay on course toward their goals.

6) **Reflection and Evaluation**: Metacognition encourages individuals to reflect on their experiences, evaluate their performance, and identify areas for improvement. By analyzing their successes and failures, extracting lessons learned, and setting new goals based on their reflections, individuals can continuously refine their self-regulation skills and enhance their future performance.

7) **Self-Awareness and Self-Efficacy**: Metacognition promotes self-awareness and self-efficacy by helping individuals develop a deeper understanding of their strengths, weaknesses, and capabilities. By recognizing their own agency and competence in achieving their goals, individuals can cultivate a sense of confidence, resilience, and self-motivation that fuels their self-regulation efforts.

Overall, metacognition enhances self-regulation by fostering awareness, monitoring, control, and adaptation of one's cognitive processes, emotions, and behaviors. By developing metacognitive skills, individuals can become more effective self-regulated learners, capable of setting goals, planning strategically, managing their emotions, and adapting their strategies to achieve success in various domains of life (Seli, 2019).

Role of Metacognitive Interventions in Enhancing Learning Outcomes and Improving Decision Making Across Different Age Levels

Metacognitive interventions play a significant role in enhancing learning outcomes and improving decision making across different age levels by fostering metacognitive awareness, skills, and strategies(Baker, 1994). Here's how these interventions can benefit individuals at various stages of development:

1) Early Childhood (Preschool to Early Elementary School)

Metacognitive interventions in early childhood focus on building foundational metacognitive skills such as self-awareness, self-regulation, and reflection.

Activities such as storytelling, role-playing, and guided discussions help young children develop an understanding of their own thinking processes and emotions.

Simple metacognitive strategies, such as "stop and think" or "ask for help when stuck," are introduced to help children regulate their behavior and problem-solving efforts.

These interventions lay the groundwork for future metacognitive development and promote a positive attitude toward learning and decision making.

2. Middle Childhood (Late Elementary to Middle School)

Metacognitive interventions in middle childhood aim to deepen children's metacognitive awareness and enhance their ability to monitor and regulate their learning processes.

Explicit instruction in metacognitive strategies, such as goal setting, planning, monitoring, and reflection, helps children become more strategic and self-directed learners.

Scaffolding and support from teachers and peers encourage children to apply metacognitive strategies in academic tasks and everyday problem-solving situations.

Activities such as concept mapping, think-alouds, and peer collaboration promote metacognitive dialogue and reflection, fostering a deeper understanding of one's own learning strengths and weaknesses.

3). Adolescence (High School to Early Adulthood)

Metacognitive interventions in adolescence focus on refining and consolidating metacognitive skills to support academic achievement and decision making

Strategies such as self-assessment, goal setting, time management, and study skills training help adolescents become more effective learners and problem solvers.

Metacognitive coaching and mentoring provide personalized support and guidance to help adolescents navigate academic challenges, set realistic goals, and manage their academic workload.

Opportunities for metacognitive reflection, such as journaling, portfolio assessments, and self-evaluations, encourage adolescents to take ownership of their learning and make informed decisions about their academic and future career paths.

4). Adulthood

Metacognitive interventions in adulthood focus on promoting lifelong learning and decision-making skills that are essential for success in professional and personal life.

Continuing education programs and workplace training initiatives incorporate metacognitive strategies to help adults acquire new knowledge and skills, adapt to changing job requirements, and make informed career decisions.

Executive coaching and leadership development programs emphasize metacognitive skills such as strategic thinking, problem-solving, and decision making, enabling adults to excel in their roles and advance their careers.

Self-directed learning opportunities, such as online courses, workshops, and self-help resources, empower adults to take control of their own learning and professional development, fostering a growth mindset and a commitment to lifelong learning.

Overall, metacognitive interventions play a critical role in enhancing learning outcomes and improving decision making across different age levels by equipping individuals with the metacognitive awareness, skills, and strategies needed to succeed in academic, professional, and personal contexts. By integrating metacognitive principles into educational practices, training programs, and lifelong learning initiatives, educators, practitioners, and policymakers can empower individuals of all ages to become more effective learners, problem solvers, and decision makers

Discussion

Metacognition, the process of thinking about one's own thinking, holds significant implications for learning and decision making across various domains. Through the exploration of metacognition and its impact, this research paper has shed light on the intricate interplay between cognitive processes, self-awareness, and regulatory mechanisms that shape human cognition and behavior.

The discussion begins by elucidating the components of metacognition, including metacognitive knowledge and metacognitive regulation. It highlights the importance of understanding one's cognitive processes, selecting appropriate strategies, and monitoring and adjusting these strategies to achieve desired outcomes. By examining the developmental aspects of metacognition, the discussion underscores the evolution of metacognitive skills from early childhood to adulthood,

emphasizing the role of social interactions, educational experiences, and real-world challenges in shaping metacognitive development.

Furthermore, the discussion delves into the implications of metacognition for educational practices, emphasizing the role of metacognitive interventions in fostering self-regulated learning, critical thinking, and problem solving. It underscores the importance of explicit instruction, reflective practices, and collaborative learning environments in promoting metacognitive awareness and skills among learners of all ages. Moreover, the discussion explores the role of metacognition in decision making, highlighting its contribution to risk management, critical analysis, and self-regulation in decision-making contexts.

Conclusion

In conclusion, this research paper has provided a comprehensive exploration of metacognition and its profound impact on learning and decision making. By unraveling the complexities of metacognitive processes and their implications, this paper contributes to our understanding of human cognition and behavior and offers valuable insights for educators, practitioners, and policymakers.

Moving forward, it is essential to continue investigating the mechanisms underlying metacognition and exploring innovative approaches to foster metacognitive development in diverse populations and contexts. By integrating metacognitive principles into educational curricula, training programs, and decision-making frameworks, we can empower individuals to become more self-directed learners, critical thinkers, and adaptive decision makers, capable of navigating the complexities of the modern world with confidence and resilience

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FROM CLASSROOM TO SCREEN: EXPLORING DIGITAL LEARNING ORIENTATION IN THE SHIFT TO DIGITAL TEACHING

Showket Nabi[1]
Habibullah Shah[2]

Abstract

The emergence of COVID-19 brought about a notable transformation in the role of teachers as change agents through their adoption of educational innovations. This study aimed to understand school teachers' experiences with digital orientation practices adopted in the virtual eco-system. The study employed a phenomenological design. The study recruited 10 teachers through criterion sampling from three government secondary schools in Kashmir. The focus group discussions and semi-structured interviews were utilized. Three themes emerged from data including digital learning orientation, a transition from traditional to digital teaching, and teacher autonomy in digital learning. Results revealed that teachers adapted to new digital tools, enhancing lesson engagement through virtual collaboration and multimedia resources. Teacher-student interactions were found to be altered, with educators finding innovative ways to maintain engagement but also faced challenges in establishing strong relationships in a virtual ecosystem. The study also highlights the need for ongoing professional development, support in adapting digital tools, and strategies to foster effective teacher-student interactions, ensuring a balanced and engaging online learning environment.

Keywords: Digital Orientation, Digital Teaching, Teacher Autonomy, Secondary Teacher.

Introduction

In times of alteration, suddenly new needs emerge from unforeseen causes, like the Covid-19 pandemic, and educational processes face both unanticipated challenges and emergent areas of opportunity. Nevertheless, in crisis-like situations, educational innovation leads to the generation of new products and ideas (e.g., technology, instruments, pedagogy, transformation, models, systems, methods, or better solutions

[1] Research Scholar, Department of Education, University of Kashmir
[2] Associate Professor, Directorate of Distance Education, University of Kashmir

(Ramírez-Montoya & Lugo-Ocando, 2020; Ahmad et al., 2022). Educational innovations have occupied a central place in response to the disruption of schooling during the COVID-19 pandemic. Innovative school education necessitates both innovative pedagogy and methods that improve the student experience and the educational influence on school practice. In this fast-growing and changing scenario, we must constantly ask, 'Is there a better way? (Mulgan et al., 2007). It is an innovation that always relies on introducing new and novel ways of doing things (Malloch & Porter-O'Grady, 2010). Innovations in education could act as a focal point for novel methods of teaching that provide both a lifelong learning subscription and an integrated educational experience (Aithal & Maiya, 2023).

The widespread closure of schools occurred amid the Covid-19 era, leading to rapid transformation in technological innovations and digitalization in educational contexts (Alshamsi et al., 2020). However, in India – as in other Asian countries, such as Nepal or China many schools lag concerning the expected information and communication technologies (ICT) transformation progress. Like other countries, India also issued directives for the lockdown, and the government advocated for continuing education through distance and online spaces (Babbar & Gupta, 2022; Shah et al., 2024; Tahir & Jan, 2024). Zoom, Google Classroom, and Google Meet platforms were used frequently (Alvi & Gupta, 2020; Lawrence & Preethi, 2021). Zoom has been hailed by the World Economic Forum (2020) as the most innovative videoconferencing tool, and faculties have just adopted it significantly. Despite the unpreparedness and challenges faced by educators, educational administrators, and institutions during the COVID-19 pandemic, they successfully sustained the education system with educational innovations (Bondar et al., 2021; Nabi et al., 2022). The big picture now shows a willingness to try new things and take advantage of new learning possibilities that were not as obvious in the past. In light of the general crisis, the pandemic brought about change, especially regarding the so-called Emergency Remote Teaching (ERT) (Dar & Nabi, 2019; Xie & Rice, 2021). The research by Steindal et al. (2021) indicated that the utilization of Learning Management Systems (LMS) was found to significantly impact the ability of postgraduate students to prepare for various activities. In this modern age, information technology (IT) fosters the development of a society that relies on knowledge and information (Ullah et al., 2021). Educators from all grades and contexts encountered the need to rethink their roles and responsibilities, methods of supporting students' academic tasks, and the idea of students as self-organizing learners, active citizens, and independent social agents (Council of Europe 2016, 2018; Tahir, 2024). Not just pupils but teachers, in particular, must develop new skills to adapt to this change. Therefore, the COVID-19 pandemic has taught us

the significance of innovations. It has strongly reminded us that there is no alternative to innovative thinking for human survival. As flagged by Zakaria (2020) in his book *Ten Lessons for a Post-Pandemic World,* it asserts that if COVID-19 proved anything, it is resourcefulness and human inventiveness. We could not stymie the process of innovations in any field of life even during the pandemic-19, particularly in the education sector.

Methodology

Study Design and Participants

We employed a Qualitative approach with phenomenological design to acquire a comprehensive understanding of the lived experiences of secondary school teachers, this approach emphasizes the unique ways in which individuals experience a given phenomenon. This design was used to capture teachers' lived experiences of educational innovations in light of the COVID-19 pandemic. This decision was supported and guided by (Tuffour, 2017; Van Manen, 2001, 2017), who proclaimed that the goal of phenomenology is to describe the experience from the perception of its experiencer. Semi-structured interviews were utilized to gather detailed information conversationally (Adams, 2015; Harrell & Bradley, 2009), while focus group discussions were also employed due to their advantages over other qualitative methods in obtaining information in large quantities (Busetto et al., 2020; Powell & Single, 1996).

Three districts from Kashmir Division, Srinagar, Baramulla, and Anantnag, constituted the field site for the current research. Nine teacher participants were chosen from three Government secondary schools in Kashmir. Participants were recruited and interviewed using criterion sampling. In criteria sampling, participants are selected based on the fulfilment of predetermined criteria. The level of familiarity the participant has with the phenomena being investigated is a prominent criterion (Moser & Korstjens, 2018).

Data Analysis

This study employed Inductive Thematic Analysis following (Braun and Clarke's 2006) six-step approach, which is particularly suitable for qualitative research characterized by an inductive approach or loosely defined themes arising from open data collection. Thematic analysis was chosen due to its capability to identify, analyze, and report themes within the data, thus enabling the organization and interpretation of various aspects of the phenomenon under investigation (Boyatzis, 1998).

Results of the Study

Digital Learning Orientation

School education has had to switch to remote learning to meet social distancing standards, making digital learning orientation essential. Teachers battled with online class transactions as they first started their professional careers with online classes. These obstacles were likely the virtual environment, technology, and a new teaching style. New to online education, participants had their first virtual learning encounter. In this scenario, digital learning orientation has become a crucial part of education as many educational institutions have had to shift to remote learning to comply with social distancing guidelines. The results show that the District Institute of Education and Training (DIET) designed a virtual educational training series to teach teachers online instructing skills. Training related to how to use Zoom Cloud, Google Meet, and Google Classroom to foster a positive learning environment and carry out virtual teaching.

According to the study, teachers preferred Google Classroom and Zoom for education technology integration. This shows that innovative technologies can help make online education smooth and seamless. The digital learning orientation was a good illustration of how educational institutions dealt with the demand for teacher training in the face of a change in how students were taught. This is consistent with the more general idea of how crisis and outside influences might hasten innovation in education.

Meanwhile Participant 2 (secondary school teacher) put it:

> *"I started my professional life with online transaction of classes. In the very beginning I found online classes challenging. Nevertheless, DIETs played a vital role in training us, soon I got the grip and conducted classes smoothly. Covid-19 gave a big push to technological innovations and fast-tracked the transition to a hybrid model that would have otherwise taken decades to progress" (P 4)*

> Another participant shared his experience, stating that *it was my first time engaging in virtual learning, and we were unprepared for it. (P7)*

Teacher participants during FGD suggested timely need for, support and training for instructors to effectively use and integrate technology in platforms like Google Classroom and Zoom. Furthermore, teachers emphasized that even a basic video-making program like MS Movie Maker can encourage teachers and students to adopt innovative teaching approaches. (participant 4,5,6,7, 8)

> One more participant narrated that *DIETs have also played a significant role in giving training to teachers for their professional growth. We were given*

> *training regarding how to make innovative use of ZOOM classes, such as how to share screens with students and how to use an inbuilt whiteboard and like (P5).*

The above narratives reveal that participants initially struggled with online class transactions as they started their professional careers with online classes. These hurdles presumably involved adapting to the virtual environment, technology, and a new teaching style. Furthermore, some participants experienced their first virtual learning experience, as they were new to online education. The study found that teachers prioritized user-friendly platforms like Google Classroom and Zoom for technology integration in education system. This suggests that platforms with intuitive interfaces and features can be crucial in facilitating smooth and seamless online teaching experiences. Teachers saw the COVID-19 problem as an opportunity to bring about change, and they were ready for the innovation and improvement in teaching that educational innovations could provide. furthermore, they were satisfied with the administration, particularly DIETs at their capacity and capability to exploit the full potential of ICT owing to an individual and sufficient direct assistance from the administration.

The Transition from Traditional to Digital Teaching

The transition from traditional to digital teaching during the COVID-19 pandemic was very sudden. Teachers had to adapt to new technologies, reimagine lesson plans, and find ways to engage students virtually. This transition required flexibility, innovation, creativity, and resilience to maintain effective learning environments online. The inexperienced in online teaching, high school history teacher, reflects on their transition from the classroom to digital learning. Initially, they felt overwhelmed by the new technology and the challenges of creating an engaging online environment.

> The participant narrated: *"I was used to reading my students' faces and adjusting my teaching based on their reactions" (P9).* Another participant narrated: *"But online, it is a different ballgame. I had no idea if they were absorbing the material or just zoning out in front of their screens." (P7)*

The results showed that many teachers struggle to adapt to digital teaching methods. In the participant's experience, the transition brought feelings of uncertainty. She mentions the difficulty of adjusting lesson plans to fit an online format and the challenges of using digital tools like video conferencing and interactive platforms. The participant narrated, *"I thought I could just transfer what I had been doing in the classroom to an online environment" (P4).* Nevertheless, quickly, I realized it was not

that simple. It was a lot more about learning how to engage my students virtually and not just teach the content.

However, participants also shared moments of growth. Through trial and error, teachers became more comfortable using digital tools creatively to foster student interaction. One more participant said, *"The first time I used a breakout room effectively, I felt like I had finally cracked the code"* (P3), she admits, demonstrating her evolving orientation toward digital teaching. Her experience reflects the theme of adaptation and the learning curve of teaching in a digital format. The transition, while challenging, also opened up new opportunities for creativity and innovation in her teaching methods.

Teacher Autonomy in the Digital Learning

Teacher autonomy in digital learning during COVID-19 became both a challenge and an opportunity. With the sudden shift to online mode and adapting to new technologies and learning platforms, often with little time for training. Despite administrative guidelines and curriculum mandates, many educators found ways to exercise autonomy by designing personalized lessons, incorporating innovative digital tools, and fostering student engagement in unique ways. While the lack of in-person interaction posed challenges, teachers embraced the flexibility of online teaching, lowing for creative approaches and a more tailored educational experience that aligned with their teaching philosophies.one of the participants, a secondary school math teacher, shared his experience of autonomy in the digital classroom. When schools shifted to online learning, he found that many established structures and support systems he relied on were no longer in place.

> Participant narrated, *"At first, I felt like I had no control. The administration gave directives about the platforms we needed to use, but there was little room for input or choice. (P1)*

The shared experience was found for many teachers, who often felt constrained by the imposed shift to digital platforms. However, at some moments, they could reclaim their agency. One participant responded, *"I had control over how I engaged my students. I started developing my online quizzes, using tools like Kahoot and Padlet to make the lessons more interactive" (P5).* Through this process, he gradually realized that his ability to choose tools, develop content, and experiment with teaching methods allowed him to reclaim a sense of autonomy in the digital classroom. The

other participant said, *"I could design lessons how I wanted, giving me a sense of purpose" (P6).*

Digital teaching was found to be a balancing act between following administrative guidelines and exercising personal creativity. However, the lack of immediate feedback and interaction with students can be challenging, but empowered by the opportunities digital platforms provide to personalize this approach. This theme highlights the importance of teacher agency and the satisfaction of creating a learning experience that reflects individual teaching philosophies. The secondary school teacher also described the shifting landscape of their professional identity in the wake of the digital learning shift amid COVID-19. One participant narrated that

> *"At first, I felt disconnected from my role as a teacher, however with time I improved my online teaching skills" (P2). One* more participant added that. *"I had built my career on personal connections, building relationships with my students, and those seemed so much harder to do online. (P3)*

The struggle was about learning new digital tools and redefining their purpose and role as educators. As a secondary school teacher, the bond they form with their students is a cornerstone of teaching pedagogy, and digital platforms seem to diminish that connection. One participant (P7) shared the experience emotionally:

> *"I missed those little moments, the smile on a child's face when they understand something for the first time. It was hard to replicate that in a virtual environment."*

Discussion

This study found that digital learning orientation has become a crucial part of education as many schools and universities have had to shift to remote learning to comply with social distancing guidelines. However, DIETs promote digital orientation programmes to enhance teachers' professional skills. Kinder Mann et al. (2021) conclude that digital orientation enables the organization to grow strategically. The DIETs have played a crucial role in guiding teachers' personal and professional growth, specifically in training them on the creative utilization of Zoom classes. This training includes teaching teachers how to effectively share their screens with students and utilize Zoom, Google Meet, and more built-in whiteboard features. The finding was supported by the study of Rupeika-Apoga et al. (2022), which stated that having a digital mindset and being digitally capable positively impacts digital transformation. These results may help practitioners and policymakers better

understand how the effects of digital transformation on teachers' and students' outcomes are influenced by digital orientation and capacity; however, we need to provide more training to teachers to enhance their digital literacy. Also envisaged by Bailey et al. (2022), using video conferencing to instruct intercultural communication skills pupils yielded noteworthy outcomes for subsequent investigations. Numerous investigations have shown the educational benefits of video conferencing and web-based learning as virtual learning environments for educating students. and teachers (Hobbs & Coiro, 2019; Jayaraman & Jothiswaran, 2020; Wani & Nabi, 2022). Amidst lockdowns and crises, academics must have ongoing chances to enhance their professional growth (Hobbs & Coiro, 2016; Nabi & Shah, 2024; Tahir & Jan).

Teachers expressed challenges adjusting to online teaching, notably missing the ability to read students' faces. The results are in line with Turnbull (2021), who found that teachers face multiple challenges during virtual teaching. The challenge was determining whether students were absorbing the content or disengaging, emphasizing the gap between in-person and digital interactions. This finding aligns with Richards (2023), who highlighted the issue of student disengagement in the online learning ecosystem. Teachers initially believed they could replicate traditional classroom methods online but soon realized the need for adaptation. The results also highlighted the success of using breakout rooms, feeling a sense of accomplishment and growth in navigating the new digital teaching environment. The finding is consistent with Bashir et al. (2021), who found similar results. Teachers initially felt restricted by administrative directives on platforms but found autonomy in engaging students. Teachers regained control over lesson design by utilizing tools like Kahoot and Padlet, which sparked creativity and a renewed sense of purpose in digital teaching. Similarly, (Eberle & Hobrecht, 2021; Shah et al., 2022) noted that while teachers initially faced challenges with the online environment, they eventually gained mastery over various digital tools. Teachers initially felt a loss of control due to platform administrative directives, with limited input allowed. The participant felt disconnected from their role, missing the personal connections and moments of understanding in the classroom. The challenge of replicating these experiences online created feelings of professional disconnection. (Oliveira et al. 2021; O'Leary 2025).

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ACADEMIC RESILIENCE AND FACTORS AFFECTING: A SYSTEMATIC REVIEW-BASED STUDY

Amina Parveen[1]
Suraya Jabeen[2]
Zimik Phayaola[3]
Fazila Bashir[4]
Umera Jan[5]

Abstract

The ability to bounce back academically is crucial in enabling students to adjust and thrive despite facing challenges in their educational journey. Academic resilience is a crucial psychological trait that enables students to overcome academic challenges and succeed despite adverse conditions. It refers to the ability of students to overcome academic adversities and achieve positive educational outcomes despite challenging circumstances. This systematic review aims to synthesize existing literature on academic resilience and identify the key factors influencing it. Following the PRISMA 2020 guidelines, a comprehensive search was conducted across PubMed, Scopus, ERIC, and PsycINFO databases. A total of ***21*** *studies met the inclusion criteria. The findings highlight that academic resilience is influenced by individual factors (e.g., self-efficacy, motivation), familial factors (e.g., parental support, socioeconomic status), and institutional factors (e.g., school climate, teacher support). The review underscores the need for targeted interventions to foster resilience among students, particularly those from disadvantaged backgrounds. Limitations and future research directions are discussed. This study highlights the importance of adopting holistic approaches to enhance resilience in students dealing with a variety of challenges, proposing future research directions and practical uses for these findings.*

Keywords: Academic Resilience, PRISMA 2020, Systematic Review, Educational Outcomes

Introduction

Resilience is an inherent capacity possessed by individuals, although they may remain unaware of it until they encounter a crisis or trauma. Broadly defined, resilience refers

[1]Professor & Head, Department of Education, University of Kashmir
[2&3] Research Scholars, Department of Education, University of Kashmir

to the process, capacity, or outcome of successfully adapting in the face of challenging or threatening circumstances (Howard & Johnson, 2000). Tschann, Kaiser, Chesney, Alkon, and Boyce (1996) emphasize the importance of understanding the differentiating factors that lead some individuals to experience breakdowns, while others develop positive adaptations during difficult situations. A considerable body of research has been undertaken to examine the human capacity to cope with traumatic events and adversity (Masten, Best, & Garmezy, 1990; Rutter, 1990; Luthar, Cicchetti, & Becker, 2000). Resilience is characterized as the ability to manage various stressors in a constructive manner, ultimately contributing to positive mental health outcomes (Murphey, Barry & Vaughn 2013). Furthermore, emotional intelligence plays a pivotal role in fostering resilience, with certain components such as motivation and creative, flexible thinking being linked to resilient behaviors (Mayer & Salovey, 1997).

Academic resilience specifically pertains to a student's ability to persist and excel within educational environments despite encountering challenges such as economic difficulties, learning impairments, or social adversities (Martin & Marsh, 2006). Given the increasing academic pressures of contemporary education, grasping the concept of resilience has become paramount for educators, policymakers, and researchers alike. This paper aims to systematically review the existing literature on academic resilience, delving into its definitions, key influencing factors, and potential interventions. Academic resilience is characterized by persistence and adaptability, highlighting a student's capacity to progress in their studies despite facing various challenges, including financial constraints, emotional and mental stressors, health issues, and familial problems (Martin & Marsh, 2008). It is not merely the absence of difficulties, but rather the active engagement in confronting challenges in a way that fosters personal development, educational advancement, and success.

Objectives

1. To explore the concept of academic resilience and its relevance within educational contexts.
2. To identify and synthesize the key factors that influence academic resilience.
3. To categorize these factors into individual, familial, and institutional domains.
4. To offer recommendations for interventions and future research based on the findings.

Methods

Search Strategy

A systematic search was executed across four electronic databases—PubMed, Scopus, ERIC, and PsycINFO—utilizing the following keywords: "academic resilience," "factors affecting academic resilience," "educational outcomes," and "student resilience." The search was restricted to peer-reviewed articles published in English, employing Boolean operators (AND, OR) to enhance the search precision.

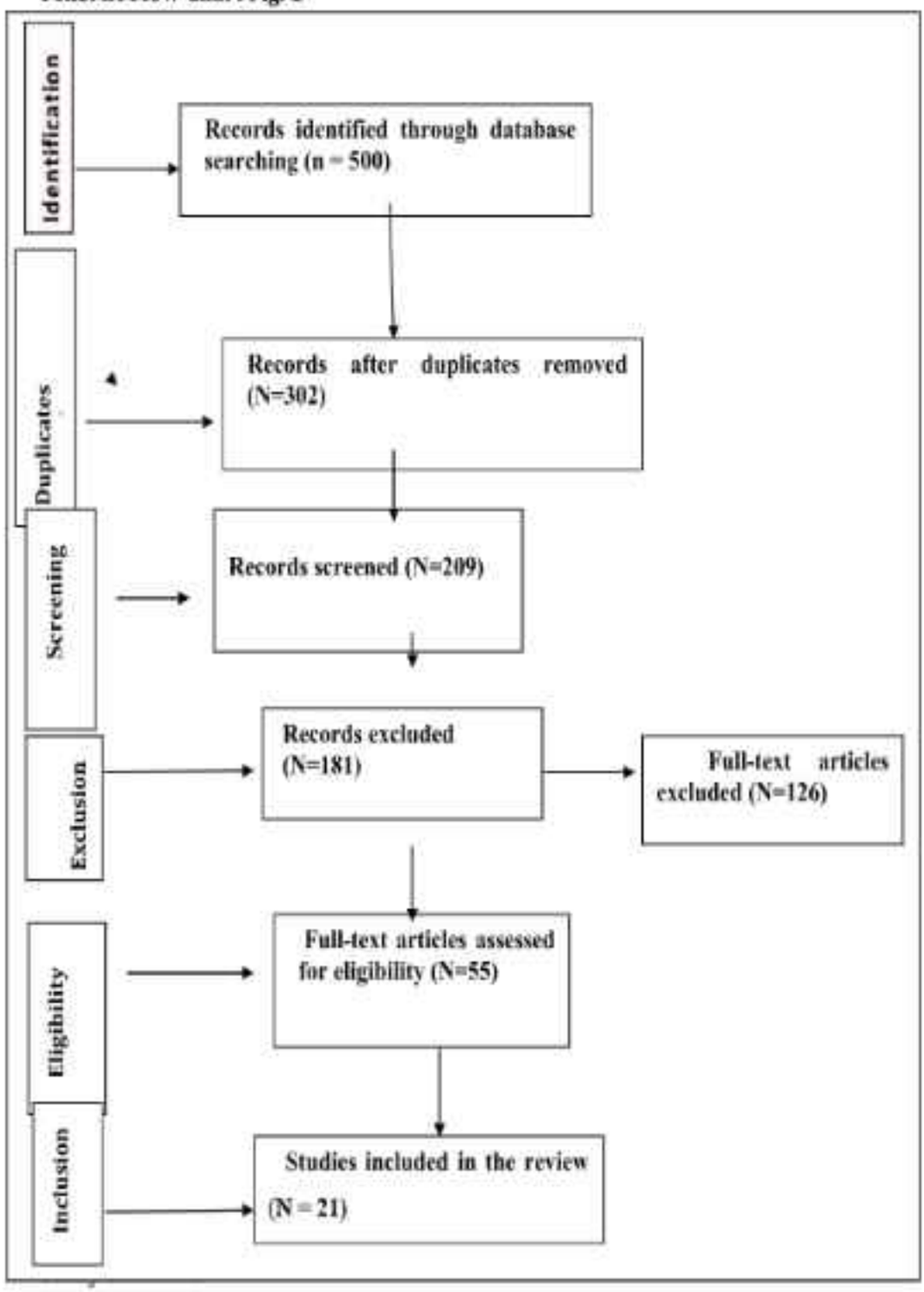
Inclusion and Exclusion Criteria

Studies were included if they: - Concentrated on academic resilience in K-12 or higher education settings. - Identified factors influencing academic resilience. - Were empirical studies (quantitative, qualitative, or mixed methods). Studies were excluded if they: - Focused exclusively on general resilience without any academic outcomes. - Were not subject to peer review. - Lacked adequate methodological rigor. Data extraction was performed utilizing a standardized form, which included study characteristics (author, year, country, and sample size), key findings, and factors influencing academic resilience. A narrative synthesis was conducted to categorize the findings into coherent themes.

Data Extraction and Synthesis

Data were extracted using a standardized form, including study characteristics (author, year, country, and sample size), key findings, and factors influencing academic resilience. A narrative synthesis was conducted to categorize findings into themes.

PRISMA Flow Chart Fig. 1



The initial search yielded 500 articles, of which **21** met the inclusion criteria after screening titles, abstracts, and full texts (see PRISMA flow diagram above).

Summary of Reviewed Studies

Academic resilience is often defined as the ability to adapt positively to educational challenges and setbacks while maintaining high academic performance (Luthar et al., 2000). It is linked to self-efficacy, motivation, and coping mechanisms that help students navigate adversity (Masten, 2001).

A summary of the 21 studies included in the review is presented in Table 1.

Author (Year)	Country	Sample Size	Key Findings	Factors Identified
Martin & Marsh (2006)	Australia	500	Self-efficacy and motivation are key predictors of academic resilience.	Individual
Borman & Overman (2004)	USA	Not specified	Academic resilience in math is achievable among poor and minority students.	Institutional
Sirin (2005)	USA	10,000	Socioeconomic status significantly impacts academic resilience.	Familial
Hill & Tyson (2009)	USA	800	Parental involvement is critical for fostering resilience.	Familial
Fredricks & Eccles (2006)	USA	600	Extracurricular activities promote resilience.	Institutional
Zimmerman (2000)	USA	300	Self-efficacy mediates the relationship between adversity and academic success.	Individual
Wang & Holcombe (2010)	USA	1,200	Positive school climate and teacher support enhance resilience.	Institutional
Skinner & Zimmer-Gembeck (2007)	USA	400	Emotional regulation and coping strategies are critical for resilience.	Individual
Bronfenbrenner (1979)	USA	N/A (Theoretical)	Ecological systems theory explains resilience through multiple layers of influence.	Theoretical Framework
Duckworth et al. (2007)	USA	2,000	Grit and perseverance are strongly linked to academic resilience.	Individual

Deci & Ryan (2000)	USA	N/A (Theoretical)	Intrinsic motivation and self-determination are key to resilience.	Individual
Dweck (2006)	USA	N/A (Theoretical)	Growth mindset fosters resilience by emphasizing effort over innate ability.	Individual
Lazarus & Folkman (1984)	USA	N/A (Theoretical)	Coping strategies (problem-focused and emotion-focused) are essential for resilience.	Individual
Luthar et al. (2015)	USA	1,500	Peer relationships and social support are key to academic resilience.	Institutional
Masten (2001)	USA	N/A (Theoretical)	Resilience is a dynamic process shaped by protective factors.	Theoretical Framework
Pianta (1999)	USA	Not specified	Positive teacher-student relationships enhance resilience.	Institutional
Thapa et al. (2013)	USA	Not specified	Positive school climate fosters resilience and academic achievement.	Institutional
Ungar (2011)	Canada	N/A (Theoretical)	Resilience is shaped by contextual and cultural factors.	Theoretical Framework
Wang & Holcombe (2010)	USA	1,200	Positive school climate and teacher support enhance resilience.	Institutional
Wentzel (1998)	USA	Not specified	Peer and teacher relationships are critical for motivation and resilience.	Institutional
Zenner et al. (2014)	Germany	Not specified	Mindfulness-based interventions improve resilience and reduce stress.	Individual

Factors Influencing Academic Resilience

The findings were categorized into three main themes:

Individual Factors

1. Self-Efficacy and Motivation

Self-efficacy, which is defined as an individual's belief in their capacity to achieve success in specific circumstances, serves as a fundamental component of academic resilience. Students who possess high self-efficacy are more inclined to establish challenging goals, persist in the face of adversity, and recover from setbacks (Martin

& Marsh, 2006; Zimmerman, 2000). For instance, a student who is confident in their ability to master a complex mathematical concept is more likely to seek assistance, engage in consistent practice, and ultimately attain success.

Motivation, particularly intrinsic motivation, also plays a pivotal role in this context. Students who are intrinsically motivated are driven by a genuine interest in learning, rather than by external rewards. This intrinsic drive fosters resilience by rendering academic challenges more meaningful and engaging (Deci & Ryan, 2000). For example, a student who finds joy in reading for pleasure is more likely to persevere through demanding literary assignments.

2. Emotional Regulation

Emotional regulation refers to the capacity to manage and respond to emotional experiences in a constructive manner. Students who are adept at regulating their emotions are better prepared to cope with academic stressors, such as examination anxiety or failure (Skinner & Zimmer-Gembeck, 2007). For instance, a student who employs mindfulness techniques may maintain composure and focus during a high-pressure examination.

3. **Coping Strategies:** Coping strategies, including problem-focused coping (which involves addressing the source of stress) and emotion-focused coping (which pertains to managing emotional responses), are also critical. Resilient students frequently employ adaptive coping strategies, such as seeking social support or reframing adverse experiences, to navigate academic challenges (Lazarus & Folkman, 1984).

Familial Factors

1. Parental Support and Involvement

Parental support is a vital determinant of academic resilience. Supportive parents provide emotional encouragement, assist with homework, and cultivate a home environment conducive to learning (Hill & Tyson, 2009). For example, a parent who regularly engages with teachers and participates in school events exemplifies involvement that can enhance a child's academic confidence.

Parental involvement also encompasses the establishment of high yet realistic expectations and the promotion of a growth mindset. When parents emphasize effort over inherent ability, children are more likely to perceive challenges as opportunities for growth rather than insurmountable obstacles (Dweck, 2006).

2. Socioeconomic Status (SES)

Socioeconomic status has a significant influence on academic resilience. Students hailing from lower SES backgrounds often encounter additional challenges, such as limited access to educational resources, unstable housing, and inadequate nutrition,

which can impede academic performance (Sirin, 2005). For instance, a student from a low-income family may struggle to procure textbooks or secure a quiet place for study.

Nevertheless, resilience can still thrive in low-SES contexts when protective factors, such as strong familial bonds or community support, are present. Programs that offer financial assistance, tutoring, or mentorship can help mitigate the adverse effects of socioeconomic disadvantage (Borman & Overman, 2004).

Institutional Factors

1. Positive School Climate and Teacher Support

A positive school climate, characterized by safety, respect, and a sense of belonging, is closely associated with academic resilience. In such environments, students feel valued and supported, thereby enhancing their capacity to cope with academic challenges (Wang & Holcombe, 2010). For example, a school that promotes anti-bullying policies and inclusive practices cultivates resilience among vulnerable students.

Teacher support constitutes a critical factor in fostering academic resilience. Educators who offer emotional support, constructive feedback, and personalized attention can significantly enhance students' ability to persevere. For instance, a teacher who identifies a student struggling in a particular subject and provides additional assistance or encouragement can profoundly impact that student's academic journey (Pianta, 1999).

2. Extracurricular activities and peer relationships

Extracurricular activities and peer relationships also play essential roles in developing academic resilience. Engagement in activities such as sports, music, or clubs cultivates vital skills including teamwork, time management, and self-discipline (Fredricks & Eccles, 2006). For example, a student participating in a soccer team learns to balance practice with academic responsibilities, thereby developing resilience through multitasking and perseverance.

The importance of peer relationships cannot be overstated. Positive interactions among peers offer emotional support, alleviate feelings of isolation, and foster a sense of belonging. Students who maintain strong friendships are more likely to seek assistance from their peers during challenging times, thereby enhancing their resilience (Wentzel, 1998).

Integration of Factors

It is essential to recognize that academic resilience is influenced by a confluence of individual, familial, and institutional factors rather than a singular element. For instance, a student exhibiting high self-efficacy (an individual factor) may still encounter challenges in the absence of parental support (a familial factor) or in a school characterized by a negative atmosphere (an institutional factor). Conversely, a nurturing family and a supportive school environment can amplify the beneficial effects of individual traits such as motivation and emotional regulation.

Discussion

This systematic review emphasizes the complex nature of academic resilience, illustrating the interrelation of individual, familial, and institutional influences. The findings are consistent with Bronfenbrenner's ecological systems theory (1979), which posits that human development is shaped by multiple interconnected systems, ranging from the microsystem (e.g., family, school) to the macro system (e.g., cultural and societal norms). As demonstrated in this review, academic resilience arises not from a single factor but rather from the cumulative effects of these layered influences.

Theoretical Implications

The review reinforces the notion that resilience is a dynamic process rather than a static trait. For instance, a student's self-efficacy (an individual factor) can be enhanced through the support of teachers (an institutional factor) and engaged parents (a familial factor). This perspective aligns with resilience theory, which highlights the significance of protective factors in alleviating the impact of risk factors (Masten, 2001). Furthermore, the findings resonate with social-ecological models that underscore the importance of contextual factors in shaping resilience (Ungar, 2011).

Practical Implications

For Schools

It is recommended that schools implement programs aimed at building resilience that focus on key areas such as self-efficacy, emotional regulation, and coping strategies. For example, mindfulness-based interventions may assist students in managing stress and enhancing concentration (Zenner et al., 2014).

Additionally, fostering a positive school climate through the promotion of inclusivity, the reduction of bullying, and the encouragement of teacher-student relationships is vital. Schools may adopt restorative practices to cultivate a sense of belonging and safety (Thapa et al., 2013).

For Families

Encouraging parental involvement in education through workshops and resources that equip parents with strategies to support their children academically and emotionally is crucial.

Moreover, addressing socioeconomic barriers by connecting families with community resources, such as tutoring programs or financial assistance, is also recommended.

For Policymakers

Invest in systemic changes that reduce inequalities, such as equitable funding for schools in low-income areas.

Support teacher training programs that focus on resilience-building strategies and culturally responsive pedagogy.

Limitations

While this review provides valuable insights, it is not without limitations:

Language Bias: The inclusion of only English-language studies may have excluded relevant research from non-English-speaking countries, limiting the cultural generalizability of the findings.

Exclusion of Gray Literature: By focusing solely on peer-reviewed articles, the review may have overlooked valuable insights from theses, dissertations, and policy reports.

Heterogeneity of Studies: The diversity in study designs, sample sizes, and measurement tools makes it challenging to draw definitive conclusions. For example, some studies used self-reported measures of resilience, which may be subject to bias, while others employed observational or experimental methods.

Temporal Limitations: The review focused on studies published between 2010 and 2023, potentially excluding earlier foundational research on resilience.

Future Directions

To address the limitations and build on the findings of this review, future research should:

Conduct Longitudinal Studies: Longitudinal research can provide insights into how academic resilience develops over time and how early interventions impact long-term outcomes. For example, tracking students from elementary school through college could reveal critical periods for resilience-building interventions.

Explore Cross-Cultural Contexts: Comparative studies across different cultural and socioeconomic contexts can help identify universal and culture-specific factors influencing resilience. For instance, how does resilience manifest in collectivist versus individualist societies?

Investigate Intersectionality: Future research should examine how intersecting identities (e.g., race, gender, socioeconomic status) shape resilience. For example, how do the experiences of low-income female students differ from those of their male counterparts?

Develop and Evaluate Interventions: There is a need for evidence-based interventions that target multiple levels of influence (individual, familial, and institutional). Randomized controlled trials (RCTs) can help determine the effectiveness of such interventions.

Incorporate Mixed Methods: Combining quantitative and qualitative approaches can provide a more comprehensive understanding of resilience. For example, surveys can identify trends, while interviews can capture students' lived experiences.

Conclusion

Academic resilience is a vital determinant of educational success, particularly for students facing adversity. This systematic review highlights the importance of addressing individual, familial, and institutional factors to promote resilience. Key findings include the role of self-efficacy, parental support, and positive school climates in fostering resilience, as well as the impact of socioeconomic disparities on academic outcomes.

By fostering supportive environments and equipping students with essential skills, educators, parents, and policymakers can help mitigate the impact of adverse circumstances on academic achievement. Resilience-building interventions should be

holistic and context-specific, addressing the unique needs of diverse student populations.

Ultimately, academic resilience is not just about overcoming challenges but also about thriving in the face of adversity. As the world becomes increasingly complex and unpredictable, fostering resilience in students is more important than ever. This review serves as a call to action for researchers, practitioners, and policymakers to prioritize resilience in educational settings.

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EFFECT OF ECLECTIC COUNSELLING ON THE NEED ACHIEVEMENT OF PARENTALLY REJECTED CHILDREN: AN EXPERIMENTAL STUDY

Mohd Ashraf Waza[1]
Asif Farooq Zia[2]

Abstract

The present study aimed to evaluate the impact of an eclectic counselling approach on the need achievement (both composite and factor-wise) of children experiencing parental rejection. The research was conducted in various high and higher secondary schools in District Ganderbal. To identify parentally rejected students, the Parental Acceptance-Rejection Questionnaire (PARQ, 2004) developed by Rohner was administered to 9th-grade students across three educational zones—Tullamulla, Ganderbal, and Kangan. Based on the results, 80 male students aged 15-16 were identified as parentally rejected and were randomly assigned to two groups: an experimental group (N=40) and a control group (N=40). The experimental group received counselling intervention based on an eclectic approach. To assess their need achievement, Khan's Urdu adaptation of B.N. Mukherjee's Incomplete Sentence Blank (1989) was administered as a pre-test to both groups. Following the counselling intervention, the same test was conducted as a post-test to determine the effectiveness of the counselling approach. The data was analysed using the paired t-test, which revealed that the eclectic counselling approach significantly enhanced the overall need achievement of the experimental group. Improvements were noted in key dimensions such as hope of success, high ego ideal, perseverance, realistic attitude, and internal control of fate. The post-test scores of the experimental group showed statistically significant improvements at both the 0.01 and 0.05 levels. In contrast, no significant difference was observed between the pre-test and post-test need achievement scores of the control group, indicating the effectiveness of the counselling intervention in improving need achievement among parentally rejected children.

Keywords: Parental Rejection, Need Achievement, Eclectic Counselling Introduction

Introduction

The Interpersonal-Acceptance Rejection Theory (IPARTheory) is an evidence based theory of socialization and life span development that aims to predict and explain

[1]Lecturer (C) at Govt. Degree College Bandipora (Jammu & Kashmir).
[2]Lecturer (C) at Govt. Degree College Budhal, Rajouri (Jammu & Kashmir).

major consequences, cause, and other correlates of parental acceptance and rejection worldwide (Rohner, 1975, 1980,1986, 1990, 2004, 2010, 2012, 2016 & 2021), (Rohner & Pattengill,1985), (Rohner & Cournoyer, 1994), (Rohner et al.1996), (Rohner & Khaleque,2003), (Khaleque & Rohner, 2002a, 2002b), (Rohner & Lansford, 2017), (Li, 2023). The **Interpersonal Acceptance-Rejection Theory (IPARTheory)** examines how children perceive parental acceptance or rejection and the lasting impact it has on their psychological, social, and intimate relationships throughout life. The theory is based on two key parental dimensions: **Acceptance** and **Rejection**. The acceptance dimension reflects a nurturing and positive bond between a child and their parents or significant others, where the child feels loved, cared for, and emotionally supported. This is expressed through warmth, affection, and engagement, such as hugging, cuddling, praising, and showing concern. In contrast, the rejection dimension is marked by a significant lack of warmth and affection, where parents may display hostility, aggression, neglect, or indifference. Rejected children often experience emotional coldness, criticism, or even verbal, physical, and psychological harm, leading to deep emotional wounds that can persist into adulthood, affecting their self-esteem, relationships, and overall well-being. IPARTheory highlights that a child's perception of acceptance or rejection plays a crucial role in shaping their emotional and social development. Parents considered their children as burden and nuisance (Rohner, 1986, 2004, 2010, 2012, 2021), (Khaleque & Rohner, 2002a, 2002b), (Rising & Rohner, 2021).

According to IPAR Theory Parental rejection expressed by parents perceived and experienced by children in the form of four countenances **(1) Cold and unaffectionate** which refers to the parental behaviour showing no sign of love, kindness, emotions or friendliness. Children perceive their parents as unsympathetic, uninterested, insensitive, inhospitable, inaccessible and unavailable. These parents are indifferent, unresponsive, hard hearted and emotionally unavailable to their kids. They are unable to maintain the emotional bond with their children. **(2) Hostile and aggressive** behaviour of the parents is full of aggression and anger. Parents who are hostile and aggressive always show annoyed, exasperated, indignant, malevolent, inimical and irked behaviour. Parents express the hostility and aggression verbally (insulting, yelling, mocking, shouting, shrieking, squeaking and using derogatory language), physically (hitting, grabbing, beating, kicking, maiming, slapping and pinching), symbolic (rude, offensive gestures). **(3) Indifferent and neglecting** parents are those who are showing lack of interest in their children. They are not paying any kind of interest to fulfill the needs and demands of the child. These parents are insouciant, detached, callous,

lackluster, dispassionate and impassive. Neglect does not necessary mean that parents does not meet the physical and material needs of the child, it also means that parents do not meet the social and emotional needs of the child. Those parents who are neglecting pay no or little attention to the needs of their children and they have the tendency to remain unavailable, unresponsive and unapproachable to their children. All these behaviours of the parents whether real or perceived persuade the children to feel unloved and rejected. **(4) Undifferentiated rejection** which refers to the perception of an individual perceives that another person does not care about them in spite of whether the other person behaves in an aggressive, neglectful or unaffectionate way.

The **Rejection Dimension** of the **Parental Acceptance-Rejection Theory (PARTheory)** highlights four key behavioural patterns in parents that children interpret as signs of rejection. These behaviours shape a child's perception of being unloved or unwanted. The first aspect is **cold and unaffectionate behaviour**, where parents fail to express warmth physically (such as a lack of hugging, kissing, or cuddling) or verbally (by not offering praise, compliments, or kind words). The second is **hostility and aggression**, which can manifest physically (such as hitting, kicking, or shoving) or verbally (using sarcasm, belittling language, or saying cruel and hurtful things). The third is **indifference and neglect**, where parents are emotionally and physically unavailable, showing little to no attention to their child's needs and emotions. Lastly, **undifferentiated rejection** refers to a child's deep-seated feeling of being unloved or unappreciated, even if parents do not display outright rejection. Beyond these behaviours, children may also sense rejection through non-verbal cues, such as lack of eye contact, avoiding interaction, certain facial expressions, or body language like slouching and fidgeting. As noted by Kagan (1978), parental rejection is not just about specific actions but is ultimately defined by how the child perceives their relationship with their parents.

Need Achievement

Humans have the natural urge to work and achieve the success. It is also true that sometimes the individual may not be successful in facing some of the tasks. There may be the different reasons why an individual may not succeed. But in the present competitive world everyone has to improve the indicators of the performance, and of the most important indicator of performance is the need for achievement. Need achievement is the main force behind any person to achieve the goals, this drive is known as the motivation. It is a zeal, enthusiasm and passion which activates the certain behaviours of an individual to reach greater heights in life.

The concept of **N-Ach** was used and popularized by the David McClelland in the year 1961(McClellan 1968). This personality trait is highly influenced by internal drive for action (intrinsic motivation) and some external things also plays a significant role in need for achievement (extrinsic motivation). The external things may be the reward or pressure exerted by some external forces. The people who are having high N-Ach always choose difficult tasks and set high goals in life and try very hard to achieve those goals. Those who are having low N-Ach choose easy tasks and are having the fear of failure. Need for achievement **(nAch)** it refers to the ability of a person to have an intrinsic drive to achieve success and excellence, develop a competitive outlook, get the goals and try hard to achieve those goals.

Counselling

Counselling is a structured and professional process designed to offer guidance, support, and assistance to individuals or groups facing personal, emotional, or psychological challenges. At its core, counselling aims to help people explore their thoughts, emotions, and behaviours, leading to greater self-awareness, effective coping strategies, and positive life changes. It provides a **safe and supportive space** where individuals can freely express their concerns, fears, and feelings without judgment. A counsellor, trained in various therapeutic techniques, works to help clients understand their struggles, process their emotions, and develop strategies to navigate difficult situations. The foundation of counselling is built on key principles such as **empathy, active listening, a non-judgmental approach, and respect for the client's autonomy**, ensuring that individuals feel heard, valued, and empowered to make meaningful changes in their lives.

Statement of the Problem

Every child deserves the fundamental rights of **life, health, protection, and education**, and it is the responsibility of every society to safeguard the well-being of its future generations. However, millions of children around the world are deprived of proper healthcare, education, love, and care, leaving them vulnerable and disadvantaged. Children **thrive and develop best** in an environment where they feel safe, loved, and nurtured.

This study aims to support children who experience **parental rejection** by providing them with guidance and intervention. The researcher will use **eclectic counselling approaches** to help these children improve their **academic performance** and overall well-being. By addressing their emotional and psychological struggles, this study hopes to inspire policymakers, educators, and

communities to recognize the importance of having **school counsellors** in every school. These professionals can provide essential **support to all students**, especially those who feel rejected, ensuring they are integrated into mainstream society and empowered to lead **happy, fulfilling lives**. The core motive behind the present study is to identify and help the parentally rejected children to improve their self-concept, raise their need achievement, improve emotional adjustment and have a better academic achievement.

Objectives of the Study

1. To identify the Parentally-Rejected Children.
2. To help the Parentally-Rejected Children to raise their need achievement and its different dimensions with the help of counselling.

Hypotheses

1. There would be a significant improvement in the post-test factor wise need achievement scores of the experimental group.
2. There would be a significant improvement in the composite score on need achievement of experimental group.

Methodology

This study follows an experimental research design, specifically employing a true experimental approach using a pre-test/post-test design to ensure rigorous and systematic investigation.

Sample

The sample for this study was drawn from various Government High and Higher Secondary Schools in District Ganderbal, Jammu & Kashmir. A total of 80 male students were selected using the Parental Acceptance-Rejection Questionnaire (PARQ, Child Version-2004) developed by Rohner. These students were then evenly divided into two groups—an experimental group and a control group, with 40 participants in each.

Tools Used

The following tools were used to conduct the present study.

1. Parental Acceptance Rejection Questionnaire (PARQ Child Version Short Form) developed by the Rohner 2004.

2. Khan's Urdu Adaptation of B. N. Mukherjee's Incomplete Sentence Blank 1989.

Counselling Process

Counselling is a **personalized, one-on-one support process** that helps individuals grow, adjust, solve problems, and make informed decisions. In an **educational setting**, the primary goal of a **counselling program** is to assist students in understanding their challenges, recognizing their strengths and weaknesses, and gaining awareness about career opportunities and life's demands. Through this process, students develop **insight into their difficulties**, learn to navigate obstacles, and are guided toward finding meaningful solutions. Ultimately, counselling empowers students to make well-informed choices regarding their **education, career paths, personal growth, and social interactions**, enabling them to lead more fulfilling and purposeful lives.

In this study, the investigators employed an eclectic counselling approach. Eclectic counselling is a multi-theoretical, flexible and multifaceted approach of counselling that allows the counsellor to use the most potent and available methods of counselling which will be effective in addressing each individual client's needs and problems.

Counselling in Relation with Need Achievement

The parentally rejected children who were in experimental group had a low need achievement before the counselling intervention. All the participants were in crouched situation, feeling pessimistic, perceived their life as gloomy, and they had already accepted the failure and were totally downbeat. All the subject samples had low factor wise as well as composite scores of need achievement in the pre-test conducted by investigator. There is no doubt that every human has the desire to be successful in different fields of life, so were the parentally rejected children. But due to various reasons these children could not do it. The reasons were sometimes parental negligence, personal problems, school environment and peer group situations. The investigator went step-by-step to understand the motivational issues of the experimental group and provide all necessary help to these kids to develop and raise their desires, motivate them to achieve what they are capable of. The investigator helped the clients to build the conviction for the success. Although they had the hope of success but they had the offbeat feeling that they would never be successful in their life. They were involved in blame game, blaming parents, teachers, relatives, sometimes themselves, all these issues were hampering their growth. The investigator understands that lack of initiative and fear of failure was

the biggest obstacles in their progress. The investigator helped the clients to understand that failure is the part of the life. The clients in experimental group were assisted to take initiative and not to waste time, believe on their capabilities and leave the social phobia about failure and be optimistic about their future prospects. One of the client in experimental group was very bright but he was suffering from the imposter syndrome, although he had all the abilities to excel, and he had achieved success in different sports activities. The investigator provided every kind of help and support to this kid. He was setting high goals, but was feeling disappointed when he was unable to achieve those goals. The investigator helped him to break down his goals in different categories and work on them one-by-one which proved very helpful for him. The participants in the experimental group were boosted with the stories of some great personalities **(Nelson Mandela, Abraham Lincoln, Martin Luther King Jr. APJ Abdul Kalam, Kalpana Chawla, Thomas Elva Edison, Stevie Wonder & Stephen Hawking)** so that they can be inspired to do well in their life. The investigator helped them to do those kind of activities which they like the most and reward themselves when they achieve any kind of success no matter how small the achievement was.

Parentally rejected children had built an image full of self-doubts. They were in confusion what they want to be in their life. The investigator with the help of counselling helped these children to develop strong sense of self, strength to absorb the pain, face distress and conflicts of their life. The clients in the experimental group were assisted to build the strong high ego ideal, be resilient and master the art of coping strategies. The clients were also narrated the stories of great personalities to develop the high ego ideals. All the participants were communicated to understand and redefine their goals, change the ways and means and believe on their abilities and work hard and change their false ego ideal to real ego ideal.

Every individual in this world faces some failures or setbacks in life. These setbacks may be big or small. The small ones can be managed but the biggest setbacks sometimes prove very disastrous for the individual. There were some children in the experimental group who were feeling the serious rejection from their parents and it had taken a heavy toll of them how they think and behave in their day-to- day life. They were facing the hard time of their life, so, it was necessary for them to rethink and reconsider ways, goals and paths. All the parentally rejected children in the experimental group were helped through counselling to develop and improve the skills of perseverance. The clients were facilitated to face the difficult time, learn from failures and change their attitude. They were helped to take some kind of risk, and understand what steps they should take to keep going. They were helped how to build the support system with the help of parents, friends, relatives and from

significant others. They were assisted not to give up after some failure, they were encouraged to keep their goals in mind and keep moving forward. They were assisted to remember that all successful people were the perseverant. Perseverance would help them to build their confidence. They were assisted to understand the value of hard work, and work passionately to achieve their goals. The investigator helped these children to develop time management skills, celebrate the small wins and develop the self-discipline. The investigator encouraged the parents as well as the teachers to develop the sense of independence among these young children, help them to set small and realistic goals and if necessary provide them some kind of professional help and provide them calm and supportive environment.

The parentally rejected children were the victims of strong pessimism, they were of the opinion that there is nothing positive in their life or family. There was lack of hope, joy or happiness in their life. The investigator helped these children to change their outlook about themselves and about the environment around them. They were helped to boost their thinking and invigorate to develop an optimistic attitude. The clients in the experimental group were abetted to change their cognitive, affective and behavioural components of their attitude. With the help of the counselling they were encouraged to face their problems and try to solve these problems. The sample subjects were motivated with the help of the counselling to have a positive attitude which would help them to overcome different personal problems and they would develop an inner strength to move ahead despite all the difficulties. The clients were helped to restore their lost confidence and think how many good qualities they possess as an individual. They were helped to cultivate the ability to focus on those things which matters the most and maintain personal honesty, honour and integrity, have an optimistic approach about their future.

The parentally rejected children had developed a strong feeling that being rejected, lonely, depressed and suppressed was their fate. They had this belief that whatever was happening to them it was because of their destiny, they told the investigator that they had no control over it. This kind of approach was the biggest hurdle in their progress. Whenever any untoward incident had happened in their life they blame their parents, friends, relatives, teachers and sometimes their luck. If they had to solve any problem, they always wait for external source which was never there. The investigator with the help of counselling sample subjects of experimental to believe on their abilities, took some steps and solve your own problems as no external force would came to your help. No doubt, luck plays its part in the life of a person, but what is more important is the hard work, determination which would help you to control your own life and destiny. They were helped to believe on their own efforts and energy to complete a particular task and believe that luck matters

but hard work more precious than luck or fate. Following the conclusion of the counselling process, which spanned a duration of eight months, the investigator conducted a post-test. The collected data was then analyzed to formulate the study's results.

Results

Table 1 representing the significance of mean difference between (Pre and Post-Test) need achievement scores factor wise and composite of Experimental Group (N=40).

Dimension	Pre-Test		Post-Test	't' Value
Hope of Success	$\bar{X}$	1.65	2.08	**2.66***
	σ	.62	.73	
High Ego Ideal	$\bar{X}$	1.58	2.00	**2.97***
	σ	.54	.64	
Perseverance	$\bar{X}$	1.48	2.05	**4.47***
	σ	.59	.63	
Realistic Attitude	$\bar{X}$	1.38	1.98	**5.09***
	σ	.49	.64	
Internal Control of Fate	$\bar{X}$	1.70	1.95	**2.03****
	σ	.64	.63	
Composite Score on Need Achievement	$\bar{X}$	7.80	10.05	**8.90***
	σ	.99	1.48	

***Significant at 0.01 Level** ****Significant at 0.05 Level**

Figure 1. Shows the pre-test-post-test mean comparison of the experimental group.

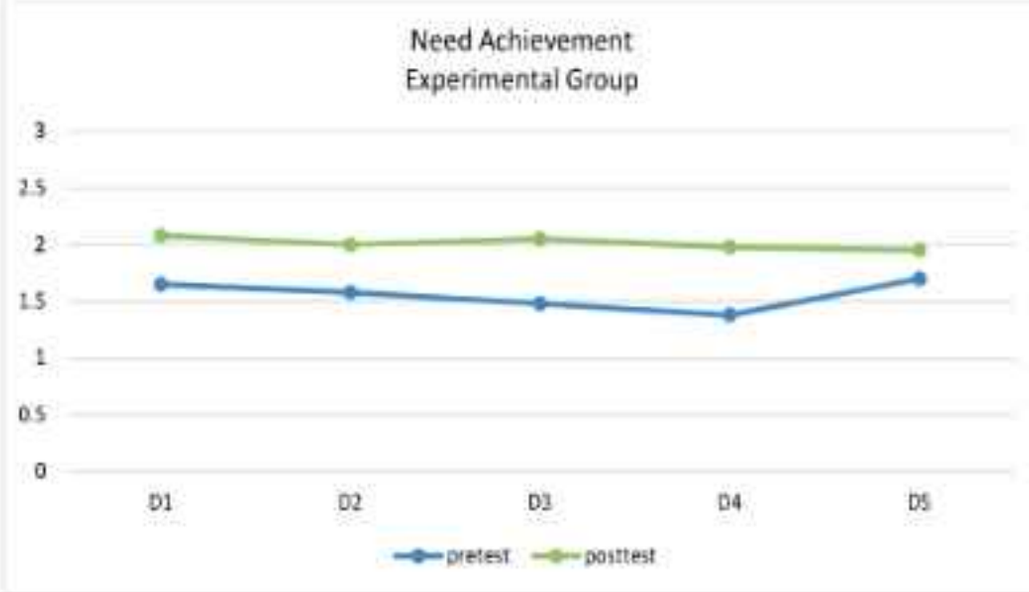


Table 2. representing the significance of mean difference between (Pre and Post-Test) need achievement scores factor wise and composite of Control Group with (N=40)

Dimension	Pre-Test		Post-Test	't' Value
Hope of Success	$\bar{X}$	1.75	1.58	**1.41***
	σ	.63	.54	
High Ego Ideal	$\bar{X}$	1.70	1.53	**1.36***
	σ	.64	.55	
Perseverance	$\bar{X}$	1.63	1.78	**1.06***
	σ	.58	.69	
Realistic Attitude	$\bar{X}$	1.33	1.65	**.18***
	σ	.54	.66	
Internal Control of Fate	$\bar{X}$	1.60	1.53	**.57***
	σ	.59	.59	
Composite Score on Need Achievement	$\bar{X}$	8.00	7.80	**.96***
	σ	1.24	.99	

***Not Significant**

Figure 2. Showing the pre-test-post-test mean comparison of need achievement of control group.

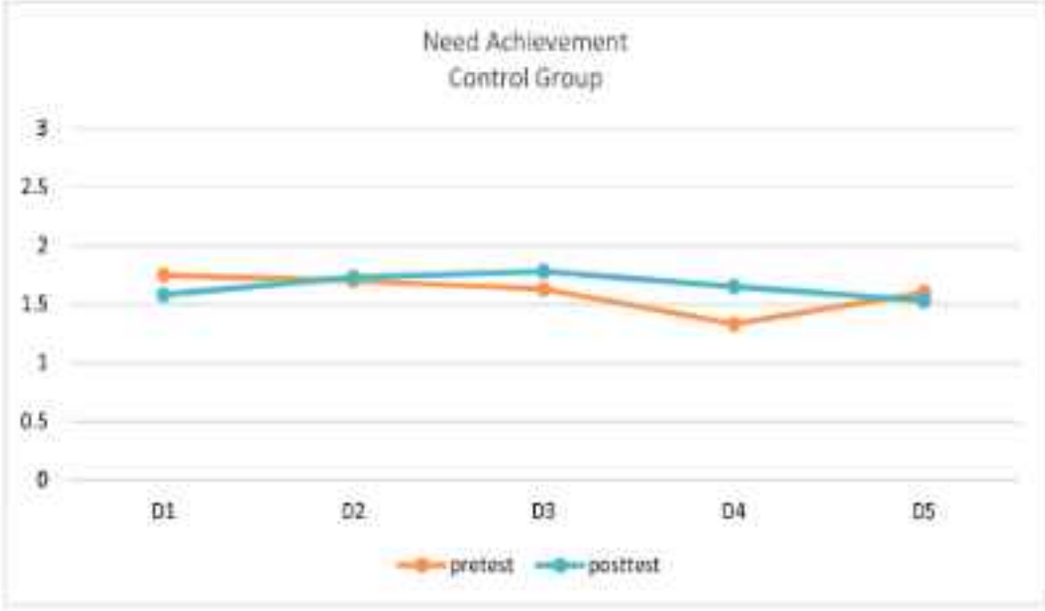
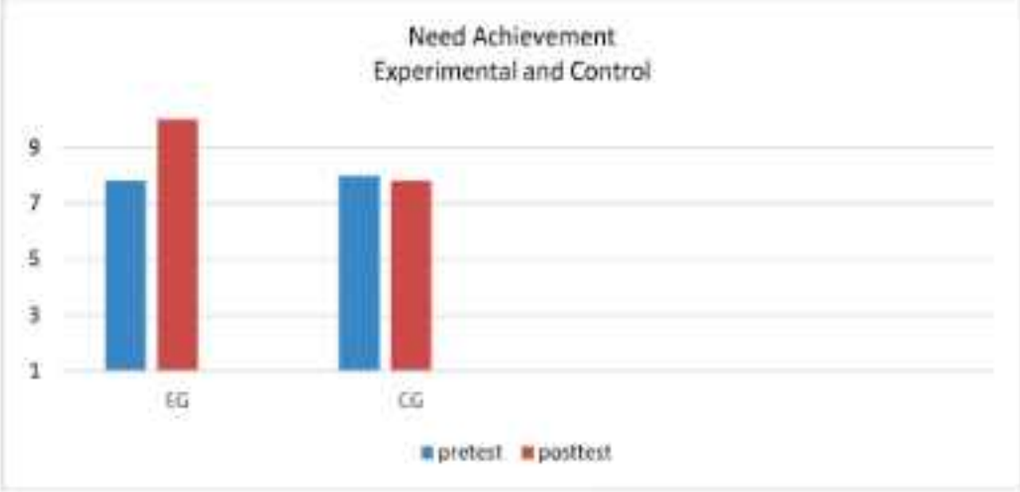


Figure 3. Depicting the Mean comparison of Pre and Post-Test of Experimental and Control group on Need Achievement.



Discussion

The analysis of Table 1 highlights a significant difference in mean scores between the pre-test and post-test need achievement scores across various factors and composite scores within the experimental group. The mean pre-test score for Factor 1, "Hope of Success," was 1.65, which increased to 2.08 in the post-test, with a calculated t-value of 2.66, significant at the 0.01 level. A lower pre-test score indicated that participants had diminished expectations of success. However, the post-test results suggest that after counselling, these children developed optimism about their future, a belief in success, and an improved sense of self-reward and inspiration.

Regarding Factor 2, "High Ego Ideal," the pre-test mean score was 1.58, which increased to 2.00 post-intervention, with a t-value of 2.97, also significant at the 0.01 level. The lower pre-test score suggested that these children had low aspirations, lacked self-confidence, and exhibited minimal competitiveness. However, counselling played a crucial role in fostering high aspirations, strengthening self-confidence, instilling a commitment to hard work, and developing a sense of competition and self-respect.

Similarly, in Factor 3, "Perseverance," the mean pre-test score was 1.48, which rose to 2.05 in the post-test, with a t-value of 4.47, significant at the 0.01 level. The low pre-test score indicated a lack of perseverance among the participants. Through counselling, they developed persistence, diligence, and an ability to tackle challenging tasks. They also gained an understanding of key perseverance attributes—purpose, passion, and positivity—and were introduced to the Theory of Constraints, which helped them recognize constraints and the four core beliefs of

the theory: inherent simplicity, harmony, goodness, and potential.

For Factor 4, "Realistic Attitude," the pre-test mean score was 1.38, increasing to 1.98 post-test, with a t-value of 5.09, significant at the 0.01 level. Prior to counselling, the participants displayed pessimistic attitudes, hesitated to take initiative, and struggled with goal-setting due to irrational thoughts. Post-counselling, they developed a more realistic outlook, improved their planning and goal-setting abilities, and built confidence in taking risks.

In Factor 5, "Internal Control of Fate," the pre-test mean score was 1.70, which increased slightly to 1.90 post-test, with a t-value of 2.03, significant at the 0.05 level. The lower pre-test scores suggested that participants lacked self-belief and control over their own lives. Counselling helped them develop a sense of determinism, self-reliance, and belief in their ability to shape their destinies.

The composite need achievement scores showed a pre-test mean of 7.80, which significantly increased to 10.05 in the post-test, with a t-value of 8.90, significant at the 0.01 level. The counselling intervention effectively enhanced all dimensions of need achievement within the experimental group. This leads to the conclusion that significant improvements occurred in the need achievement of the experimental group. Counselling not only heightened intrinsic and extrinsic motivation but also maximized potential for positive change. Consequently, Hypothesis 1(a), which stated that "there would be a significant improvement in the post-test factor-wise scores on need achievement of the experimental group," is accepted. Likewise, Hypothesis 1(b), which stated that "there would be a significant improvement in the post-test composite need achievement scores of the experimental group," is also accepted.

Conversely, the analysis of Table 2 indicates no significant differences between pre-test and post-test scores within the control group. The mean pre-test score for "Hope of Success" was 1.75, slightly higher than the post-test score of 1.58, with a t-value of 1.41, which was not significant. Similarly, for "High Ego Ideal," the pre-test mean score was 1.70, slightly decreasing to 1.53 post-test, with a non-significant t-value of 1.36. In "Perseverance," the pre-test mean score was 1.63, marginally increasing to 1.78 post-test, with a t-value of 1.06, showing no significant improvement.

For "Realistic Attitude," the pre-test mean score was 1.33, increasing slightly to 1.65 post-test, with a t-value of 0.18, which was not significant. Similarly, for "Internal Control of Fate," the pre-test mean score was 1.60, with a negligible change to 1.53 post-test, yielding a t-value of 0.57, again indicating no significant improvement. The composite need achievement scores in the control group showed a slight decline from 8.00 pre-test to 7.80 post-test, with a t-value of 0.96, which was not significant.

These findings confirm that no meaningful improvements occurred in the control group, as no counselling intervention was provided.

The findings illustrated in Tables 1 and 2, along with Figures 1, 2, and 3, align with previous studies conducted by Aziz (2022), Dilag (2022), Wiyono et al. (2022), Dharsana & Paramartha (2021), Murad (2021), Setiona et al. (2019), Monazah & Pirkhaeji (2017), Thaer & Thaer (2016), Saadat et al. (2011), Parveen & Khan (2011), and Abosi (2006). Aziz (2022) investigated the effectiveness of reality therapy in combination with group counselling and found it highly effective in improving students' motivation for academic well-being. Similarly, Dilag (2022) emphasized the crucial role of counselling in enhancing students' learning motivation.

Wiyono et al. (2022) demonstrated a positive correlation between the quality of counselling services and their effectiveness, concluding that counselling enhances achievement motivation among high school students. Dharsana & Paramartha (2021) explored the impact of behavioural counselling combined with modelling, finding significant improvements in students' self-achievement. Murad (2021) examined the effects of a cognitive-behavioural therapy (CBT) program in reducing psychological stress and improving achievement motivation among university students, concluding that CBT not only alleviated stress but also enhanced achievement motivation.

Setiona et al. (2019) studied the implementation of solution-focused counselling (SFC) and found it highly effective in improving students' motivation. Monazah & Pirkhaeji (2017) investigated the influence of a creativity therapy model on student motivation and academic performance, revealing a significant positive impact. Thaer & Thaer (2016) assessed the ARCS Motivational Model's effect on achievement motivation and academic success, demonstrating its efficacy.

Saadat et al. (2011) examined systematic motivational counselling and found it beneficial in enhancing academic achievement motivation. Parveen & Khan (2011) explored the role of counselling in improving the need achievement of underachievers and observed positive outcomes. Lastly, Abosi (2006) evaluated the effectiveness of rational emotive therapy on achievement motivation, confirming its success in fostering motivation among students.

These findings collectively reinforce the effectiveness of counselling interventions in enhancing students' need achievement and motivation, particularly among parentally rejected children. The results underscore the necessity of structured counselling programs in fostering optimism, perseverance, self-confidence, and intrinsic motivation, ultimately contributing to better academic and personal outcomes.

Implications

This study was designed to support **parentally rejected children** by helping them enhance their **need achievement** and its various dimensions. To achieve this, an **eclectic counselling approach** was implemented, which proved to be highly effective. The **post-test results** of the experimental group clearly demonstrated a significant improvement in the children's **need achievement**, highlighting the positive impact of counselling.

The findings confirm that **eclectic counselling** can play a crucial role in helping parentally rejected children understand their struggles and explore effective solutions, particularly in boosting their **need achievement**. More broadly, counselling can contribute to the **overall growth and well-being** of these children. This study also provides valuable insights for **parents, counsellors, administrators, teachers, school and policymakers**, encouraging them to acknowledge the **challenges of parental rejection** and develop strategies to support affected children. By fostering a deeper understanding of their **needs, aspirations, and emotional struggles**, parents can learn to provide the care and support their children require, ultimately leading to greater personal and academic success. Through targeted counselling interventions, these children can be empowered to overcome difficulties and grow into **confident, well-adjusted members of society**.

Conclusion

This research aimed to assess the impact of counselling on the need achievement of children experiencing parental rejection. As a key intervention for the experimental group, counselling significantly contributed to enhancing their need achievement. It proved instrumental in fostering essential components such as hope for success, ego ideal, perseverance, realistic attitude, and internal control of fate. Additionally, counselling empowered these children by instilling the importance of education, equipping them with stress management strategies, and motivating them to strive for excellence in their lives.

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BRIDGING THE DIGITAL DIVIDE: ASSISTIVE TECHNOLOGY AND INCLUSION FOR PEOPLE WITH DISABILITIES IN INDIA

Mir Rahul Ahmad[1]
Gulshan Wani[2]

Abstract

Assistive Technology (AT) is essential in improving accessibility, promoting independence, and fostering social inclusion for individuals with disabilities. This paper examines the evolving AT ecosystem, encompassing government initiatives, NGO efforts, innovative startups and educational policies. It explores the integration of AT in mainstream education, emphasizing tools like screen readers, speech-to-text software, and adaptive learning devices that facilitate personalized learning experiences. Despite significant advancements, challenges such as affordability, awareness, teacher training and infrastructure gaps still hinder widespread adoption. Through qualitative analysis, this study highlights best practices and case studies demonstrating the transformative impact of AT on education, employment, and social inclusion. The findings emphasize the need for targeted interventions, including inclusive policy frameworks, increased research funding, universal design principles, financial support mechanisms, and multi-stakeholder collaborations. Implementation of these recommendations is essential for maximizing the benefits of AT and creating a more inclusive environment in India, ensuring equitable and dignified lives for individuals with disabilities.

Keywords – Assistive Technology, Accessibility, Inclusive Education, Disabilities

Introduction

The contemporary global perspective acknowledges the growing significance of assistive technology (AT) in alleviating functional constraints for individuals with disabilities. Assistive technology is an umbrella term that encompasses the systems and services involved in providing assistive products and support (WHO, 2022). Assistive technology enables individuals to live healthy, productive, independent, and

[1]Lecturer, Department of Education, Govt. Degree College Thathri (Doda), J & K
[2]Former Associate Professor, Department of Education, University of Kashmir

The contemporary global perspective acknowledges the growing significance of assistive technology (AT) in alleviating functional constraints for individuals with disabilities. Assistive technology is an umbrella term that encompasses the systems and services involved in providing assistive products and support (WHO, 2022). Assistive technology enables individuals to live healthy, productive, independent, and dignified lives while participating in education, employment, and social activities (Smith et al., 2016). This underscores the inevitability that, at some juncture, individuals, whether temporarily or permanently, will necessitate AT to enhance their physical capabilities, fostering independent living, social integration, and educational pursuits. Assistive technology is crucial for individuals facing either temporary or permanent functional challenges, enhancing their abilities and promoting active participation across various life domains. These technologies can take the form of physical aids like wheelchairs, hearing aids, or digital solutions such as software and apps, facilitating communication, information access, and daily activities (WHO, 2022). Assistive Technologies (AT) constitute a comprehensive and inclusive concept, encompassing a diverse array of tools designed to mitigate the impact of specific impairments (Reed & Bowser, 2005). This spectrum of assistive tools spans low-tech solutions, such as crutches and specialized pen grips, to intermediate technologies like hearing aids and glasses, and extends to high-tech devices, including braillers and computers equipped with specialized software tailored to facilitate reading for individuals with dyslexia (WHO, 2009).

The utilization of technology serves as a facilitative means for students with disabilities, enabling heightened autonomy and proficiency in academic and vocational endeavors. This encompasses enhanced participation in classroom discourse, increased accessibility to peers and instructors, and the overcoming of challenging academic tasks (Burgstahler, 2003). Consequently, technology emerges as an instrumental tool for Persons with Disabilities (PwDs), empowering them to achieve autonomy in daily life and excel in educational and occupational domains.

Assistive technologies have been incorporated into educational practices to address the obstacles encountered by students with disabilities in academic settings, (Umoeshiet, 2020).

Approximately 15% of the global population possesses diverse disabilities (WHO, 2012). It's important to recognize that disability is not a flaw, and individuals with disabilities are integral members of our community who deserve equal rights. Moreover, the demand for Assistive Technology is on the rise, particularly in developing countries. This trend holds true for India as well, although the precise number of individuals whose needs have been fulfilled or remain unmet is uncertain. India has witnessed a growing interest in developing and implementing

assistive technologies to enhance the lives of individuals with disabilities. Efforts have been made to address accessibility challenges, but disparities persist in terms of availability, awareness, and affordability. Non-governmental organizations, government initiatives, and technological innovations have contributed to advancements, yet there is still a need for widespread integration and comprehensive policies to ensure equitable access to assistive technologies across the country. For the most current and specific information, it is advisable to refer to recent reports, studies, and official sources as the field of assistive technology is dynamic and subject to changes over time.

The 2011 Census revealed that 2.6 crore individuals in India, constituting 2.21% of the total population, are living with disabilities. India is actively working towards enhancing the empowerment of its citizens with disabilities.

Research Objectives

The paper aims to achieve the following specific objectives:

1. Explore the current scenario of assistive technology in India
2. Identify gaps and challenges in the adoption of assistive technology
3. Assess the impact of assistive technology on the lives of people with disabilities (PWDs)
4. Propose recommendations for enhancing the effectiveness of assistive technology initiatives

Research Methodology

This study employs a qualitative research approach to analyze the policies, initiatives, and challenges associated with assistive technology in India. A comprehensive review of existing literature was conducted to examine the regulatory framework and strategic interventions in this domain. Additionally, case studies of successful assistive technology implementations across various regions of India were analyzed to identify best practices and impact factors. Qualitative data was collected to assess the effectiveness of assistive technology in enhancing the daily lives and rehabilitation of persons with disabilities (PWDs), providing insights into accessibility, usability, and socio-economic outcomes.

Current scenario of assistive technology in India

Approximately 15% of the global population is living with some form of disability (WHO,2012), with more than 80% of these individuals residing in Low- and Middle-Income Countries. In the context of India, a country with a population exceeding

1.36 billion, over 2.2% of its residents face severe mental or physical disabilities. In our contemporary era, which emphasizes the integration and inclusion of all individuals as essential for sustainable development, specific measures targeting the health and well-being of people with disabilities have become increasingly vital.

The concept of disability is inherently dynamic rather than static, and as such, there is no universally agreed-upon definition or set criteria for determining who qualifies as disabled. In India, a significant step in addressing this issue occurred in 2016 with the implementation of the Rights of People with Disabilities Act (RPwD), which introduced a comprehensive list of 21 criteria to categorize individuals as having a disability. This legal framework aims to provide a more nuanced and inclusive approach to understanding and supporting people with disabilities in the country.

India, as a member of the WHO, is dedicated to enhancing access to high-quality and affordable Assistive Technologies (AT) in line with the WHO mandate. Having ratified the UN Convention on the Rights of Persons with Disabilities, the country is obligated to ensure that AT remains accessible and affordable. To assess the current state of AT services in India, a survey (rATA) was conducted between November and December 2021 across eight districts, with support from the All India Institute of Medical Sciences, New Delhi, and the Ministry of Health and Family Welfare, Government of India. The survey also received financial and technical assistance from the WHO (Senjam & Mannan, 2023).

The National List of Essential Assistive Products (NLEAP), consisting of 380 items, was created by the National Expert Committee (NEC) under the Indian Council of Medical Research (ICMR) to assist people with different disabilities. This list includes crucial aids and technologies essential for enhancing the quality of life, independence, and societal participation of individuals with functional impairments (ICMR, 2020).

Here is an overview of current scenario of assistant technology in India.

Accessible India Campaign (Sugamya Bharat Abhiyan, 2015): Launched by the Government of India, this campaign aims to make public spaces and transportation accessible to PWDs. It includes provisions for accessible infrastructure and the promotion of inclusive technology.

Assistive Devices Programmes: The government has implemented various programs like ADIP scheme (2005 and updated in 2014) to distribute assistive devices like hearing aids, wheelchairs, and Braille kits to PWDs, especially in rural areas.

Non-Governmental Organizations (NGOs): NGOs play a crucial role in promoting and implementing assistive technology solutions. Organizations such as the Ability

Foundation and Enable India work towards creating awareness, providing training, and distributing assistive devices.

Assistive Technology Startups: In today's Digital India era, innovative start-ups are creating affordable Assistive Technologies (AT) to empower People with Disabilities (PwDs) for independent living. The increasing number of such start-ups addressing the unmet needs of PwDs signals positive growth in the Assistive Technology ecosystem. The demand for affordable, innovative, and adaptive solutions to develop rehabilitative devices for PwDs is significant (BIRAC, 2021). The startup ecosystem in India has seen the emergence of companies focused on developing innovative assistive technologies. These range from apps for the visually impaired to affordable prosthetic limbs and communication devices.

Education and Training: Institutions and organizations are working to integrate assistive technologies into educational settings. This includes the use of adaptive software, screen readers, and other tools to enhance the learning experience for students with disabilities.

Accessible Digital Content: Efforts are being made to ensure digital accessibility, with a focus on making websites, applications, and online content accessible to individuals with various disabilities. This is particularly important as digital platforms become integral to daily life.

The current landscape reflects a mix of progress and challenges, with ongoing efforts to improve accessibility, affordability, and awareness regarding assistive technology in India. In many countries, a typical scenario involves a collaborative effort among government entities, non-governmental organizations, faith-based groups, the private sector, and organizations representing disabled individuals in the provision of assistive products (UNICEF and WHO, 2015). Continued collaboration and innovation are essential to further enhance the support systems available for people with disabilities.

Gaps and Challenges in The Adoption of Assistive Technology

The implementation of assistive technology faces various gaps and challenges, hindering its widespread use and impact. Here are some key gaps and challenges:

Affordability: In India, approximately 30% of the population lives below the poverty line. Many assistive technologies are costly, making them unaffordable for a large segment of the population, particularly those in low-income communities. Additionally, there is limited evidence on the availability and distribution of assistive technology in low- and middle-income countries (Visagie et al., 2016). The majority of individuals in this demographic lack the financial means to purchase

these gadgets and rely entirely on government or non-governmental organizations (NGOs) for financial support (Dwivedi, 2019).

Awareness and Education: Lack of awareness about available assistive technologies among people with disabilities, caregivers, and educators can impede adoption. Users may not be adequately trained to use the technologies effectively, limiting their benefits. A study found that non-availability of assistive devices was a frequently reported barrier among visually impaired patients in India (Kumar, Roy, & Kar, 2019). Education and training programs are often insufficient or unavailable.

Accessibility and Design: Some technologies may not be designed with inclusivity in mind, resulting in products that are not universally accessible or user-friendly. Inaccessible physical environments, such as buildings and transportation, can limit the effective use of assistive devices.

Policy and Regulation: A global survey conducted by UNICEF revealed that the assistive technology needs of children with disabilities are met only to the extent of 5-15%. Inconsistent or inadequate policies and regulations related to assistive technology may create barriers to adoption and standardization. Governments may not allocate sufficient funds for the development, distribution, and maintenance of assistive technologies.

Stigma and Social Attitudes: Negative societal attitudes toward disability can contribute to a reluctance to use assistive technologies due to fear of judgment or discrimination. Limited social inclusion and understanding of the needs of people with disabilities may discourage the development and adoption of assistive technologies.

Availability and Distribution: Assistive technologies may not be distributed equitably, with urban areas having better access compared to rural or remote regions. In some regions, specific assistive technologies may be scarce or entirely unavailable, limiting options for users.

Technological Barriers: Some assistive technologies may be too complex for certain users, particularly older individuals or those with limited technical skills. The fast pace of technological advancements can make it challenging for individuals and organizations to keep up with the latest and most suitable assistive technologies.

Addressing these gaps and challenges requires a multi-faceted approach involving governments, policymakers, technology developers, educators, and advocacy groups. Efforts should focus on improving affordability, raising awareness, enhancing training programs, promoting inclusive design, and ensuring the development of policies that support the adoption of assistive technology.

Impact of Assistive Technology on the Lives of People with Disabilities (PWDs)

The impact of assistive technology on the lives of people with disabilities (PWDs) is multifaceted, contributing significantly to their independence, social inclusion, and overall well-being. Here are several ways in which assistive technology positively affects the lives of PWDs:

Enhanced Independence: Wheelchairs, crutches, and mobility scooters enable individuals with mobility impairments to move independently in both indoor and outdoor environments. Similarly, speech-generating devices and communication apps support individuals with speech or communication disabilities, allowing them to express themselves and engage with others (UNICEF & WHO, 2015).

Improved Access to Education: Assistive technologies like screen readers and Braille displays allow individuals with visual impairments to access educational materials, supporting their learning and academic success. Similarly, educational software tailored for specific disabilities helps students with learning challenges, such as dyslexia or attention disorders, to overcome obstacles and achieve academic progress.

Employment Opportunities: Assistive technologies in the workplace, such as ergonomic tools, screen magnifiers, and voice recognition software, allow PWDs to perform their jobs effectively, opening up employment opportunities. Specialized assistive tools, such as adaptive keyboards or mouse alternatives, enable individuals with physical disabilities to engage in a wide range of professions.

Social Inclusion and Communication: Assistive technologies facilitate social interaction by providing platforms and applications that enable individuals with disabilities to connect with others, fostering a sense of community. Deaf individuals can use video relay services to communicate with hearing individuals through sign language interpreters, enhancing their ability to engage in conversations and participate in various activities.

Increased Access to Information: Individuals with visual impairments benefit from text-to-speech software, which reads aloud digital content, thereby providing access to information on websites, documents, and electronic media. Designing websites and applications with accessibility features ensures that PWDs can easily navigate and access information independently.

Assistance with Daily Living: Home automation and smart devices assist individuals with mobility challenges or other disabilities in managing daily tasks, such as turning on lights, adjusting temperatures, or operating household appliances. Various assistive technologies, such as adaptive utensils or personal care

devices, enhance the ability of individuals with physical disabilities to perform routine activities independently.

Increased Safety and Security: Individuals with hearing impairments benefit from assistive technologies that provide visual or vibrating alerts for alarms, doorbells, and emergency situations, enhancing safety. Wearable devices equipped with assistive features, such as fall detection or health monitoring, contribute to the safety and well-being of individuals with disabilities.

While the impact of assistive technology is generally positive, it's important to note that challenges such as affordability, awareness, and accessibility persist, limiting the full realization of its potential benefits. Continued efforts in research, policy development, and advocacy are crucial to addressing these challenges and ensuring that assistive technology is accessible and beneficial to all individuals with disabilities.

Initiatives in Assistive Technology for Diverse Disabilities in India (Some Case Studies)

Visual Impairment: Project Mudra - Braille E-Books for The Visually Impaired

Project Mudra, initiated by the Indian Institute of Technology (IIT) Delhi, aimed to make education more accessible to visually impaired students. The project developed a Braille-based tablet that converts digital text to Braille in real-time, enabling visually impaired individuals to read e-books and digital content easily. The tablets were distributed to visually impaired students in various schools and colleges across different regions of India. This initiative addressed the scarcity of Braille books and made mainstream educational content accessible to visually impaired students, promoting inclusive education.

Hearing Impairment: Bleetech Innovations - Sign Language Interpretation Glove

BleeTech Innovations, a startup based in India, developed a smart glove that interprets sign language gestures and converts them into spoken language. This technology aimed to enhance communication for individuals with hearing impairments by providing a bridge between sign language users and those who may not understand sign language. The sign language interpretation glove was tested and implemented in various regions, including educational institutions and public service organizations. By breaking down communication barriers, this assistive

technology empowered individuals with hearing impairments to engage more fully in various social and professional settings.

Mobility Impairment: Swagat - Accessible Public Transportation in Bengaluru

Swagat, an initiative in Bengaluru, focused on making public transportation more accessible for people with mobility impairments. This included implementing features such as low-floor buses, wheelchair ramps, and accessible bus stops. The Bengaluru Metropolitan Transport Corporation (BMTC) worked on integrating accessible features into its public transportation system. Swagat aimed to improve the overall mobility and independence of people with mobility impairments by ensuring they could use public transport with ease and without assistance.

Recommendations

Enhancing the effectiveness of assistive technology initiatives requires a comprehensive approach involving various stakeholders, including governments, policymakers, technology developers, educators, and advocacy groups. Here are several recommendations to improve the impact and accessibility of assistive technology:

Develop Inclusive Policies: Governments should formulate and implement inclusive policies that promote the development, accessibility, and affordability of assistive technologies.

Policies should address issues such as standards, funding, and the integration of assistive technologies into mainstream education and employment programs.

Invest in Research and Development: Allocate funds for research and development to encourage the creation of innovative and affordable assistive technologies. Foster collaboration between the public and private sectors, research institutions, and NGOs to drive technological advancements.

Promote Universal Design: Encourage the incorporation of universal design principles in the development of assistive technologies to ensure that they are usable by a broad range of individuals with diverse disabilities.

Advocate for the adoption of accessibility standards in product development.

Increase Awareness and Education: Conduct awareness campaigns targeting PWDs, caregivers, educators, and the general public to increase understanding of available assistive technologies. Develop educational programs that train users, caregivers, and professionals on the proper use and benefits of assistive technologies.

Provide Financial Support: Establish financial assistance programs or subsidies to make assistive technologies more affordable for individuals with disabilities. Work with insurance providers to include coverage for assistive devices.

Facilitate Collaboration and Partnerships: Encourage collaboration between governments, NGOs, private companies, and international organizations to pool resources and expertise.

Promote partnerships between assistive technology developers and end-users to ensure that technologies meet real-world needs.

Improve Accessibility Infrastructure: Invest in creating accessible environments, including public spaces, transportation, and educational institutions, to complement the use of assistive technologies. Ensure that urban and rural areas have equitable access to assistive technologies and related infrastructure.

Ensure Interoperability and Compatibility: Develop and enforce standards that promote interoperability among various assistive devices and technologies. Encourage the use of open-source and collaborative platforms to enhance compatibility.

Address Socio-cultural Barriers: Implement awareness campaigns to challenge stereotypes and reduce stigmas associated with disability. Promote social inclusion and diversity, fostering environments where the use of assistive technologies is accepted and normalized.

Evaluate and Monitor Programs: Establish mechanisms for regular evaluation of assistive technology programs to assess their effectiveness and address shortcomings. Collect feedback from users and stakeholders to identify areas for improvement.

Support Training and Professional Development: Provide training programs for professionals, including educators, healthcare workers, and rehabilitation specialists, to enhance their understanding of assistive technologies. Include modules on assistive technology in relevant academic curricula.

Encourage User-Centric Design:

Involve PWDs in the design and testing phases of assistive technologies to ensure user-centricity. Gather feedback from end-users to continuously refine and improve existing technologies.

By adopting these recommendations, stakeholders can help create a more inclusive and supportive environment for individuals with disabilities, strengthening assistive technology initiatives and enhancing the overall quality of life for persons with disabilities (PWDs).

Discussion

The examination of the current landscape of assistive technology in India reveals a dynamic ecosystem comprising government initiatives, NGO efforts, startup innovations, and educational interventions. The government's commitment, as reflected in campaigns like Accessible India and the creation of the National List of Essential Assistive Products, indicates a positive direction. Non-governmental organizations and startups contribute significantly, addressing awareness, training, and affordability challenges.

However, challenges persist, with affordability being a prominent barrier. Government schemes and NGO programs partially address this, but a more comprehensive approach is needed. The digital divide, limited awareness, and inadequate infrastructure further hinder widespread adoption. The successes of innovative startups highlight the potential for technology-driven solutions, but accessibility gaps must be bridged.

The impact assessment underscores the transformative effect of assistive technology on the lives of PWDs. From enhanced independence and improved education access to employment opportunities and increased social inclusion, the positive outcomes are evident. Yet, challenges such as affordability and awareness persist, emphasizing the need for sustained efforts.

The identified gaps and challenges, including affordability, awareness, and accessibility, necessitate targeted interventions. Recommendations encompass inclusive policies, increased research funding, universal design principles, awareness campaigns, financial support mechanisms, collaborative partnerships, improved infrastructure, and user-centric design. Implementation of these recommendations is vital for overcoming barriers and maximizing the benefits of assistive technology.

Conclusion

In conclusion, the landscape of assistive technology in India reflects a promising trajectory marked by government initiatives, NGO contributions, innovative startups, and educational interventions. While significant strides have been made to enhance accessibility and inclusion, challenges persist, particularly in terms of affordability, awareness, and infrastructure. The transformative impact of assistive technology on the lives of people with disabilities is evident, yet the realization of its full potential hinges on addressing these persistent barriers. The comprehensive recommendations put forth, ranging from inclusive policies to user-centric design and collaborative partnerships, provide a roadmap for stakeholders to enhance the

effectiveness of assistive technology initiatives. It is imperative for governments, policymakers, technology developers, educators, and advocacy groups to unite in implementing these recommendations to create a more inclusive environment, ensuring that assistive technology truly bridges gaps and enables a more equitable and dignified life for individuals with disabilities in India.

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EXPLORING GENDER DIFFERENCES IN HAPPINESS AND ACADEMIC PROCRASTINATION WITHIN PROFESSIONAL EDUCATION STREAMS

Insha Rasool[1]
Mohammad Amin Dar[2]
M.Y. Ganai[3]

Abstract

This research explores gender differences in happiness and academic procrastination among professional students across various academic disciplines. Using empirical data and theoretical frameworks, the study uncovers nuanced patterns in happiness and procrastination tendencies. Findings reveal significant gender variations in happiness levels, with male students lagging behind in certain courses. Moreover, male students across multiple disciplines exhibit higher levels of academic procrastination compared to their counterparts.

Keywords: Metacognition, Academic Achievement, Undergraduate, Kashmir.

Introduction

In the pursuit of understanding the intricate tapestry of human behavior and emotion, the exploration of gender differences within the realms of happiness and academic procrastination presents a compelling narrative. This research paper, titled "Exploring Gender Differences in Happiness and Academic Procrastination within Professional Education Streams," delves into the nuanced interplay between gender and these psychological constructs, offering a rich analysis grounded in empirical evidence. The quest for happiness, a universal human endeavour, has been shown to manifest distinctively across genders. Studies suggest that having a sense of self-worth and a clear sense of purpose is associated with increased levels of happiness and satisfaction with life. (Hill, 2015; Freire & Ferreira 2020), the social fabric of relationships holds a more pronounced influence on females' well-being

[1]Researcher Scholar, Department of Education University of Kashmir.
[2]Associate professor, Department of Education University of Kashmir.
[3] Professor, Department of Education University of Kashmir.

(Umberson et al., 1996), whereas feelings of achievement resonate more deeply with males' sense of contentment (Chui & Wong, 2016). The contrasting views on happiness are not solely a reflection of societal standards but also underscore the intricate relationship between gender identity and emotional well-being.

Parallel to the pursuit of happiness is the phenomenon of academic procrastination, a pervasive challenge within educational settings. Procrastination, often characterized by voluntary delay and accompanied by subjective discomfort, has been linked to several negative outcomes, including lower academic performance and increased stress (Hailikari et al., 2021). The tendency to procrastinate isn't evenly spread among genders; instead, it's shaped by various factors such as time management abilities, psychological adaptability, and academic self-confidence, which interact with gender in intricate ways (Rahimi et al., 2023).

This paper seeks to illuminate the gendered pathways that lead to happiness and academic procrastination, particularly within the context of professional education streams. In synthesizing the wisdom of scholarly work with the lived experiences of individuals navigating professional education, this introduction sets the stage for a thought-provoking discourse on gender, happiness, and procrastination.

Literature Review

Gender and Happiness

The connection among happiness, life satisfaction, and overall well-being is intricate and interrelated (Phillips, 2006). While demographic factors like gender are often viewed as relatively weak indicators of happiness (Csikszentmihalyi and Hunter, 2003; Diener et al., 1999), research findings have yielded mixed results. Goldbeck et al. (2007) found that girls and females tend to report lower life satisfaction or happiness compared to boys and males, consistent with some previous studies (Abbu-Rayya (2005); Abdel Khalek and Lester (2003); Argyle (1987); Chaplin & Aldao, 2013; Diener Moksnes and Espnes, 2013; Park & Peterson, (2006); Roothman et al., (2003) and Ryff and Singer (1998). However, an alternate set of studies proposes that there are no notable distinctions in subjective well-being based on gender (Casas et al., 2007; Diener et al., 1985; Froh et al., 2009; Fujita et al., 1991; Huebner et al., 2004; Warr and Payne, 1982). While it may be contended that gender doesn't directly affect happiness and well-being, these findings don't negate the potential influence of gender on the impact of other factors. Put differently, the way individuals, particularly boys and girls, develop subjective well-being might vary. Thayer et al. (1994) observed that women tend to seek social support more than men to alleviate negative moods. Similarly, Tkach and Lyubomirsky (2006) found

similar happiness levels between genders but noted differences in how they employ strategies to increase happiness.

Research exploring the relationship between gender and subjective well-being (SWB) indicates that gender might be a complex predictor of SWB, with mixed findings regarding the relationship between gender and values such as eudaimonia and hedonism. According to some studies, there are gender differences in the value placed on meaning, with females valuing it more than males (Jones et al., 2012; Smith & Johnson, 2010). On the contrary, other studies have reported no distinctions between genders concerning this matter (Brown & Williams, 2016; Garcia & Martinez, 2019). Likewise, certain studies have highlighted gender variances in the importance attributed to pleasure, noting that males tend to place a higher value on it compared to females. (Davis et al., 2009; Kim & Lee, 2015), while others have found no such differences (Chen & Li, 2018; Zhang et al., 2020). It is worth noting that the relationship between gender and SWB may be influenced by changing roles for women around the world (Diener et al., 2018). Nevertheless, certain research consistently indicates that women prioritize the aspect of meaningfulness in eudaimonia more than men (Peterson et al., 2014; Johnson & Smith, 2017). For instance, Kasser & Ryan (1993) discovered that women assigned greater importance to motives associated with "community feeling," such as efforts to enhance the world and assist others in bettering their lives. Conversely, certain studies have indicated the absence of clear gender differences in aspects associated with elements of eudaimonic motivation, such as the pursuit of meaning. (Gander et al., 2017 and Ruch et al., 2010). Men generally tend to prioritize hedonism more than women, as evidenced by studies like those conducted by Robinson (2013) and Rubel (2005), and often score higher on measures of pleasure-seeking, as indicated by research such as that by Isler and Newland (2017). However, certain studies, including those by Chen (2010) and Ruch (2017), have found no notable gender differences in the pursuit of pleasure. Nurmi (1992) observed that men tend to express more goals related to leisure activities, whereas Heckhausen (1997) noted that women tend to express more leisure-related goals. Thus, gender emerges as a multifaceted predictor of subjective well-being. Nevertheless, gender distinctions may be influenced by evolving roles for women worldwide, as suggested by Stevenson and Wolfers (2009). These variations could also arise from disparities in various domains of life satisfaction. For instance, research indicates that girls often express greater satisfaction in areas such as learning and relationships, while boys typically report higher satisfaction in physical activities. However, these differences ultimately do not result in significant variations in overall life satisfaction, as noted

by Casas et al. (2007). Further examination of gender disparities in subjective well-being within professional education fields is warranted.

Gender and Academic Procrastination

Previous studies have found that around 40-52 out of every 100 students exhibit procrastination behaviour in academic settings, as evidenced by research from Ozer et al., (2009; 2013) and Solomon & Rothblum (1984). Many studies have shown a negative link between academic procrastination and demographic factors like gender, as shown by research conducted by Balkis & Duru (2009) and Prohaska et al. (2000). Gender differences in procrastination rates have been extensively discussed due to conflicting research outcomes. While some studies have found no notable differences between genders in procrastination frequency, including research by Ferrari (1991); Haycock et al. (1998); Hess et al. (2000); Johnson & Bloom (1995); Rothblum et al. (1986); Şirin (2011); Solomon & Rothblum (1984) and Watson (2001), and others have suggested that females are more prone to procrastination, as noted by Doyle & Paludi (1998) and Washington (2004). Conversely, another group of researchers has argued that males are more likely to procrastinate, as indicated by studies by Balkis & Duru (2009), Ozer et al. (2009), Prohaska et al. (2000), Steel & Ferrari (2013), and Steel (2007).

Methodology

This study employed a descriptive survey method to explore the objectives under investigation. Data analysis was conducted quantitatively to derive meaningful insights.

Sampling

The data collection followed the principle of simple random sampling. A total of 617 professional students from four distinct study areas—MBBS, B.Tech, LLB, and B.Ed—were contacted for participation in the study. Of the undergraduate professional student sample, 256 were male, and 361 were female.

Participants

The sample comprised 617 participants who completed the questionnaire, including 256 respondents were males (42%), 361 respondents were females (58%). The participants having an academic degree: MBBS (27%), B.Tech (36%), LLB (19%) and B.Ed (18%). In MBBS 74 respondents were males and 93 females; in B.Tech 110

respondents were males and 113 were females; in LLB 37 respondents were males and 78 were females and in B.Ed 35 respondent were males and 77 were females. Here's the table based on the above written information:

Academic Degree	Total Participants	Male Respondents	Female Respondents
MBBS	167 (27%)	74 (12%)	93 (15%)
B.Tech	223 (36%)	110 (18%)	113 (18%)
LLB	115 (19%)	37 (6%)	78(13%)
B.Ed	113 (18%)	35 (6%)	77 (12%)
Total	**617**	**256 (42%)**	**361 (58%)**

This table summarizes the distribution of participants based on their academic degree, gender, and the total number of respondents.

Analysis

Table 1

Mean Standard Deviation and t-test in Happiness and Academic Procrastination between Male and Female Professional Students of MBBS, B.Tech, LLB and B.Ed

		Professional Students								
		Male			*Female*					
Variables	Courses	N	M	SD	N	M	SD	t-value	p-value	Hedg es'g
Happiness										
	MBBS	74	225.05	25.24	93	239.26	25.17	3.61	.000*	0.56
	B.TECH	110	249.42	27.11	113	235.70	30.03	3.58	.000*	0.47
	LLB	37	248.81	30.81	78	250.95	28.53	.356	.722	0.07
	B.ED	35	218.06	19.28	77	225.23	22.74	1.72	0.08	0.32
Academic Procrastinatio n										
	MBBS	74	90.78	13.14	93	85.99	16.46	2.09	0.03*	0.31
	B.TECH	110	92.26	16.98	113	85.99	17.95	2.68	.007*	0.35
	LLB	37	82.46	16.99	78	74.32	17.68	2.36	0.02*	0.46
	B.ED	35	79.09	12.06	77	80.26	14.29	.450	.655	0.08

Figure 1 (Happiness)

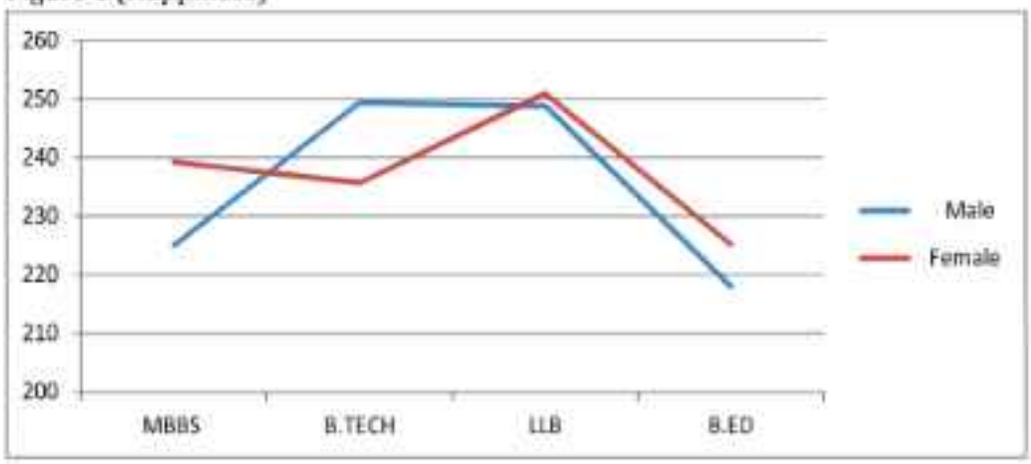
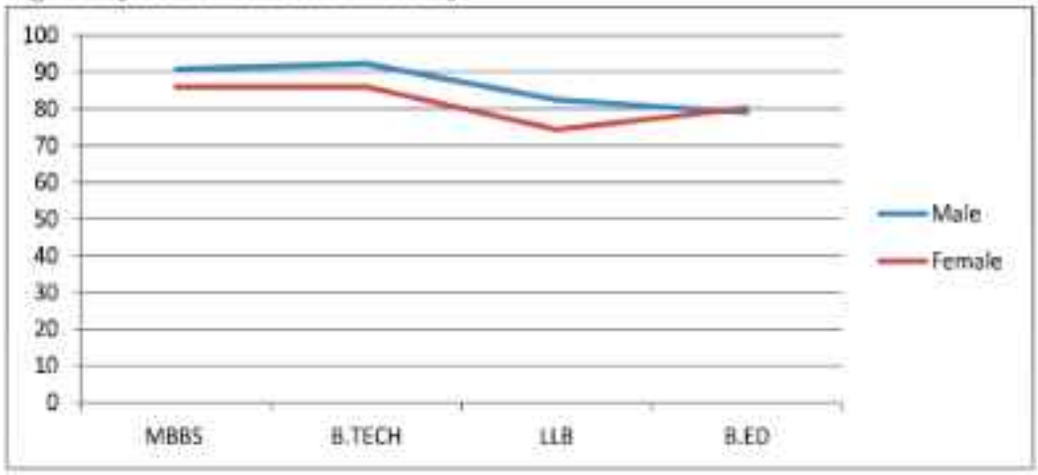


Figure 2 (Academic Procrastination)



The table 1 presents, within the realm of happiness, analysis uncovers intriguing gender dynamics among professional students across different courses. In the MBBS program, male students lag behind their female peers, revealing a significant disparity in happiness levels, with males scoring notably lower (M=225.05) than females (M=239.26). This discrepancy is substantiated by a robust effect size (Hedges' g=0.56). In the B.Tech course, male students shine with higher happiness scores (M=249.42) compared to females (M=235.70), underlining the gender gap, though with a slightly smaller effect size (Hedges' g=0.47). Interestingly, LLB students exhibit a harmonious blend of happiness across genders, with no statistically significant differences observed. As for B. Ed students, while males score slightly lower (M=218.06) than their female counterparts (M=225.23), this difference does not reach statistical significance.

In the realm of academic procrastination, intriguing gender trends emerge. Among MBBS students, male participants (M=90.78) display a slight inclination towards

procrastination compared to their female counterparts (M=85.99), with a modest yet meaningful effect size (Hedges' g=0.31). The B. Tech domain mirrors this pattern, with male students (M=92.26) exhibiting higher procrastination tendencies than females (M=85.99), bolstered by a moderate effect size (Hedges' g=0.35). In contrast, LLB students witness a significant gender divergence, with males (M=82.46) reporting more pronounced academic procrastination habits than females (M=74.32), underscored by a substantial effect size (Hedges' g=0.46). Lastly, B. Ed. students remain unaffected by gender-induced disparities in academic procrastination.

Discussion

In the initial phase of data analysis in our study, we observed a noticeable discrepancy in happiness scores among MBBS students based on gender. Specifically, we found that female students had a higher mean score, indicating greater happiness compared to their male counterparts. Additionally, we determined this difference to be statistically significant (p=0.000) using an independent sample t-test. These findings are consistent with similar observations in the literature, as studies by Khan et al. (2020) and Kulkarni and Sanjeev (2019) also reported female predominance in happiness levels. However, contrasting results were observed by Kamthan et al. (2018) and Rehman et al. (2018) in their research. Conversely, Surman et al. (2016) found only a slight difference in happiness levels between genders.

To strengthen our study's findings, we suggest that the elevated happiness level among female students could be attributed to their tendency toward greater expressiveness, the release of emotions through catharsis, and potentially superior academic achievements during their student life, as proposed by Khan et al. (2020). Generally, previous studies have also indicated that women tend to experience higher subjective well-being compared to men (Argyle, 2001; Beall, 1995; Diener et al., 1985; Harding, 1982; Hwang, 2001; Woods et al., 1989). Gender differences in happiness levels may be attributed to various factors, such as variances in coping strategies, social support networks, and mechanisms for regulating emotions (Tamres et al., 2002).

the findings of the current study are in line with prior research suggesting that male students enrolled in B. Tech programs tend to express higher levels of happiness compared to their female counterparts. This observation regarding the relationship between happiness and gender in B. Tech students is consistent with results from prior studies. Research by Abbu-Rayya (2005); AbdelKhalek and Lester (2003); Alavi (2007); Argyle (1986); Diener and Diener (1995); Diener et al., (2003);

Koivumaa-Honkanen et al., (2005); Peerz (2012); Rafiei et al., (2012); Rajabi et al., (2012); Roothman et al., (2003); Ryff and Singer (1998) and Siamian et al., (2012), consistently suggest that men tend to experience higher levels of happiness and subjective well-being. However, these results contrast with findings from other studies on university students, such as those by Farhadi et al. (2005); Fujita et al. (1991) and Sharifi et al. (2010) which either found no significant difference between males and females or reported different trends. In the present study, it was observed that males exhibit higher levels of happiness compared to females. The variation observed in these findings could be attributed to the distinct academic interests experienced by male and female students pursuing MBBS and B. Tech courses. According to Ing et al. (2014), females demonstrated a higher inclination towards expressing interest in science careers (31%) compared to engineering (13%) over the three-year duration of their study, while males showed a contrasting trend (39% interested in science; 58% interested in engineering). Notably, gender disparities were evident in the specific types of science careers preferred. While a greater percentage of males (32%) showed interest in careers in physical sciences compared to females (20%), similar levels of interest were observed in biological science careers (24% males; 25% females). This aligns with earlier research, including quantitative studies like those conducted by Sadler et al. (2012), which demonstrated that fewer females than males demonstrate substantial interest in engineering. Furthermore, female interest in engineering tends to be less steady or persistent over the study duration compared to males. Also, gender differences in coping mechanisms play a role. Women tend to use social support networks more effectively for coping with stress, which could positively impact their happiness levels (Tamres et al., 2002). In contrast, men might rely on problem-solving or task-oriented approaches Hoffman (1965), contributing to their higher well-being in B. Tech programs.

On further data analysis, we found the absence of substantial gender disparities in happiness among LLB and B.Ed. students is consistent with prior research indicating that gender does not consistently correlate with subjective well-being across various contexts (Diener et al., 2003). The primary explanation for the lack of differentiation in happiness levels between male and female students in contemporary times lies in the approach of parents toward their children. In the 21st century, parents tend to provide equal levels of happiness and resources to their children, viewing them as equals and ensuring they receive all necessary provisions in equal measure. Consequently, there is a reduced sense of inferiority among male and female students. Furthermore, the diminishing prevalence of gender discrimination in many countries contributes to this equality in happiness levels, as parents are

inclined to fulfil their children's desires without bias. This results in both male and female students enjoying comparable facilities and support, thus maintaining similar levels of happiness (Prabodhan & Kalamb, 2022.

At the end of our analysis, the finding that male students in MBBS, B. Tech, and LLB courses exhibited higher levels of academic procrastination. This finding is in line with previous research suggesting that male MBBS students tend to engage in procrastination behaviors more frequently than their female counterparts, as demonstrated (Hayat et al., 2020). This gender difference in procrastination may stem from differences in internet addiction (Hayat et al., 2020); self-regulation skills, task management strategies, and motivation levels (Steel, 2007).

The lack of significant gender disparities in academic procrastination among B.Ed students, as found in previous research (Agrawal & Parvez, 2019; Gadatia & Bera, 2019; Ozer & Yetkin, 2018; Jouer, 2015; Ozer, 2011; Akinsola et al.,2007), may be attributed to the nurturing and collaborative environment within the education field. This environment likely fosters similar study habits and time management skills among both male and female students (Solberg et al., 2007). While in other studies, the male pre-service teachers have been reported to exhibit higher levels of procrastination in their academic endeavors (Ergene & Kurtca, 2020; Akdemir, 2019; Varul & Gundug, 2019; Efe & Efe, 2018; Pala et al., 2011; Balkis & Duru, 2009; Prohaska et al., 2000; Steel & Ferrari, 2013), whereas female pre-service teachers also show tendencies toward procrastination (Tufan & Gok, 2009). Additionally, the emphasis on practical teaching experiences and interpersonal skills development in B.Ed courses may mitigate the impact of gender on academic procrastination behaviours (Duckworth & Seligman, 2005).

Conclusion

In conclusion, our analysis delved into the nuanced relationship between gender and happiness among students pursuing various academic disciplines. We observed a significant disparity in happiness scores among MBBS students, with females consistently reporting higher levels of happiness compared to their male counterparts. This finding aligns with existing literature suggesting that women generally experience greater subjective well-being. Conversely, in B. Tech programs, males tended to report higher levels of happiness, consistent with previous research indicating gender-based differences in happiness levels across different academic domains. These variations could be attributed to diverse academic interests and coping mechanisms employed by male and female students in different fields of study. However, the absence of substantial gender disparities in happiness among LLB and B.Ed students underscores the complexity of the relationship between

gender and happiness, with societal shifts toward gender equality playing a significant role. In contemporary times, equal parental treatment and diminishing gender discrimination contribute to similar levels of happiness among male and female students in these disciplines. Moreover, our analysis revealed gender differences in academic procrastination, with male students in MBBS, B. Tech, and LLB courses demonstrating higher levels of procrastination compared to their female counterparts. This gender gap in procrastination behaviours may stem from various factors such as self-regulation skills, task management strategies, and motivation levels. In contrast, the lack of significant gender disparities in academic procrastination among B.Ed. students suggests a nurturing and collaborative environment within the education field, which fosters similar study habits and time management skills among male and female students. Overall, our findings highlight the intricate interplay between gender, academic discipline, happiness, and procrastination behaviours, underscoring the need for tailored interventions and support mechanisms to address gender-specific challenges and promote overall well-being among students across diverse academic domains

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TEACHING IN THE AI ERA: INTEGRATING DIGITAL COMPETENCE AND TPACK FOR THE FUTURE

Shaheena Aziz[1]
Mohammad Amin Dar[2]

Abstract

Technological advancements are progressing at a pace much faster than our ability to adapt and acquire the necessary knowledge, skills and competencies. Therefore, the effective use of technology in the educational system relies on how well we stay updated with emerging trends. In response to the ongoing Digital Transformation, our education system needs a fundamental overhaul. This transformation extends beyond mere technological adoption; it encompasses rethinking our study methods and the content of what we learn. Embracing digital tools and strategies is essential to prepare students for the dynamic and interconnected world they will navigate. Education has made notable use of artificial intelligence (AI) as a result of breakthroughs in computer and information processing capabilities. The integration of artificial intelligence in education (AIEd) offers fresh possibilities, challenges, and prospects for learning approaches. AI has the capability to tackle some of the most pressing issues in education today and to create innovative instructional methods. In our study, we sourced articles from databases such as Science Direct, Scopus, and Google Scholar, focusing on English-language publications between 2019 and 2023. We collected data using keywords like 'Digital Competence,' 'TPACK,' and 'Artificial Intelligence.' Initially, all qualitative research articles were gathered, and those containing the specified keywords in their abstracts were included in the preliminary list. Subsequently, we employed a checklist to document relevant findings. Our initial search yielded 250 articles—100 from Scopus, 105 from Google Scholar, and 45 from Science Direct. We further refined our selection, including only articles directly related to our study. Ultimately, 11 relevant articles were carefully analyzed to identify the Digital Competence (DC) and the integration of technology, framed as TPACK and the Artificial Intelligence.

Keywords: Digital Competence, TPACK, Artificial Intelligence, Teaching and Learning

Introduction

Despite significant technological and cultural advancements and rapid lifestyle

[1]Research scholar, Department of Education, University of Kashmir
[2]Associate professor, Department of Education, University of Kashmir

changes, many people still lack the necessary skills to effectively navigate life's challenges, leading to increased vulnerability to stress and difficulties. Technological advancements are progressing at a pace much faster than our ability to adapt and acquire the necessary knowledge, skills and competencies. Therefore, the effective use of the technology in the educational system hinges on how well we stay updated with emerging trends. One of the most impacted areas within higher education by technology integration is the quality of teaching and learning. Technology not only fosters personal growth but also aids in the development and enhancement of knowledge societies. To achieve this, we require educators who can design enriched and innovative learning environments that enable students to explore through technology (Blair, 2012)

As technology becomes increasingly integrated into teaching and learning, various approaches have emerged, such as "flipped classrooms, ubiquitous learning, Gamification, and personal learning environments" (Castellanos et al., 2017). This shift requires teachers in training to acquire the knowledge, skills and competencies needed to effectively use technology, enabling them to incorporate it logically and pedagogically into their daily practices. Research shows that the level of digital competence among both (pre-service and in-service teachers) strongly predicts how well ICT is integrated into the teaching (Aslan & Zhu, 2016). Additionally, there is a close connection between teaching performance and student learning, indicating a relationship between teachers' self-efficacy in teaching the 21st-century skills and the quality of students' learning experiences in the classroom.

Our Prime Minister envisioned a digitally empowered India where quality education reaches even the most remote corners through digital learning. The New National Education Policy 2020, issued by the Ministry of Education, places strong emphasis on digital and online learning, aiming to revolutionize the Indian education system. By leveraging modern technology, NEP 2020 aspires to position India as a 'Global Knowledge Superpower' by 2030. To achieve this, research on disruptive technologies, assessing the current state of ICT in educational institutions, and developing strategies for content-ICT-pedagogy integration are essential according to the new pedagogical and curricular recommendations."

Digital Competence, Technological Pedagogical Content Knowledge (TPACK), And Artificial Intelligence (AI)

There is a pressing need to provide quality education to everyone, anytime and anywhere, and technology offers a powerful means to overcome barriers of time and space. The integration of technology enables the creation of various digital resources such as e-content, digital libraries, OERs, and MOOCs. This study is conceptualized

around Digital Competence (DC) and the integration of technology, framed as TPACK. "TPACK primarily focuses on teaching with the use of technology; DC extends to the use of digital technologies both inside and outside the professional context" (Instefjord & Munthe, 2017; Starkey, 2020). A teacher proficient in digital skills can foster creativity, critical thinking and scientific inquiry among students, transforming them into continuous learners and innovators. Continuous training and retraining are essential for teachers to fulfill their roles effectively and meaningfully. This study is crucial for achieving the expected learning outcomes, which include a blend of knowledge, values, attitudes, and skills, particularly those related to "creativity, critical thinking, communication and collaboration". As the world rapidly moves into an era of Artificial Intelligence, it is imperative to embrace new and effective approaches that will enhance the quality of education, a challenge currently facing teachers and the educational system.

The European Commission (2019) emphasizes that teacher training programs must ensure that educators possess digital skills that enable them to seamlessly incorporate ICT into their teaching methods. This is underscored by the fact that (4 out of 5) "European Member States" recognize "DC" as a crucial skill that teachers need to incorporate into their instruction. In Norway, digital competence has been a key focus in the national education agenda for years. In 2006, digital skills were officially recognized as a core competency for all students, alongside basic knowledge of reading, writing and arithmetic" (Ministry of Education and Research, 2014). The outline for basic competence, which covers grades 1 through 13, outlines the development of skills in five key areas: use and understanding, searching and processing, production, communication, and the digital responsibility (The Norwegian Directorate for Education and Training, 2017). These areas represent the essential components of digital competence that Norwegian teachers are expected to integrate into their teaching.

Digital competence is a dynamic concept that covers a wide array of skills and capabilities. It includes not only technical skills for effectively using digital tools and technologies in various aspects of life, such as studying, working, communicating, and leisure activities, but also the capacity to critically evaluate digital technologies and online information. Additionally, it encourages active participation in the digital culture. Over the past few decades, educators, much like other professionals, have enjoyed greater access to digital tools, media, and resources. Numerous national and international organizations have highlighted the importance of digital competence in the training of future teachers as a vital component in improving the quality of education in the 21st century. This topic has been widely explored from various angles within the scientific literature (Lazaro et al., 2019; Almas & Krumsvik, 2007).

Fig. 2. (Digital Competence Areas). Source: EU Science Hub

Recent literature highlights numerous studies on the training and development of early childhood and primary school teachers in ICT, emphasizing the essential role of teacher education in tackling the educational challenges of a digitized society (Ananiadou & Rizza, 2010; Cabero, 2014; Casillas et al., 2020; Prendes & Gutierrez, 2013; Tondeur et al., 2017).These studies stress the importance of providing comprehensive initial training in ICT, covering various dimensions such as instrumental, curricular, pragmatic, design, evaluation, organization, and attitudes. Technological Pedagogical Content Knowledge (TPACK) (Mishra & Koehler, 2006) has emerged as a highly relevant framework in teacher training. It emphasizes the necessity of cultivating teachers' skills in three key areas: Content Knowledge (CK), Pedagogical Knowledge (PK), and Technology Knowledge (TK), while highlighting the essential interactions among these domains. The more these three domains intersect, the stronger the foundation for effective teaching with digital tools (Koehler et al., 2013).

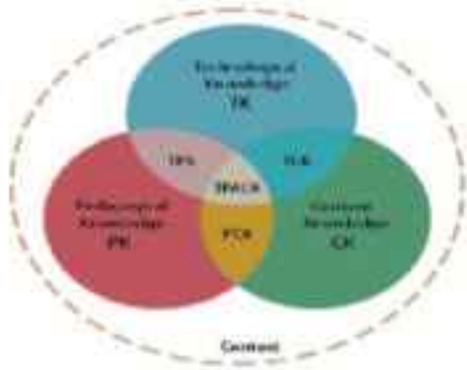

Fig.1 TPACK (Source: graphic adapted from.)

The interaction between technological knowledge and pedagogical knowledge demonstrates how teachers can utilize technology for educational purposes.

Meanwhile, the interaction between technological knowledge and content knowledge illustrates the integration of technology into specific subject content. Lastly, the intersection of pedagogical knowledge and content knowledge underscores how teachers can effectively combine content with subject-specific teaching strategies in their practice.

Artificial intelligence (AI) is revolutionizing education by "personalizing learning experiences, streamlining administrative tasks, and enhancing student engagement". Through adaptive learning systems, AI tailors content to individual needs, providing real-time feedback. While challenges exist, AI's benefits in education far outweigh drawbacks, making it a powerful force in shaping the future of learning.

Fig. 3: Artificial Intelligence (Source: Unsplash)

Literature Review

In any research process, reviewing the related literature is crucial as it helps to identify and avoid repeating previous studies. It also offers valuable insights that can enhance the significance of the research outcomes.

Portillo et al. (2020) assessed "the self-perception of digital competence among educators during the COVID-19 pandemic", focusing on their ability to deliver emergency remote teaching. The results, based on responses from 4,586 in-service teachers across all educational levels in the Basque Country, revealed that teachers generally perceived themselves as only partially competent in digital skills. They felt more confident in using digital tools for general communication than in using specific tools for teaching-learning processes. Notably, primary and secondary school teachers rated their digital competence lower than university teachers. The systematic review examined the digital competence of teachers in higher education by analyzing literature from 2000 to 2021. The review found that many studies focused on teachers' self-assessment of their digital competencies, revealing that higher education instructors often rated their digital skills as low or medium-low. The findings also highlighted a significant gap in competencies, particularly those related to evaluating educational practices (Basilotta et al., 2020).

Galimullina et al. (2022) explored the "digital competence requirements for future teachers", emphasizing the need for a comprehensive model that reflects the dynamic technological landscape and the specificities of Russian education. Their study revealed gaps in existing models of digital competence, particularly in assessing the digital skills of future educators. Through empirical research involving surveys of practicing teachers and teacher-training students, the study identified the most critical digital competencies needed for future teachers, leading to the development of a theoretical model tailored to these needs. The findings underscore that current approaches do not fully address the assessment and development of digital competence in teacher education.

Cebi et al. (2022) and Elen et al. (2017) examined the "development of digital competencies in pre-service teachers". They found that training based on the Dig Comp framework significantly enhanced participants' techno- pedagogical content knowledge (TPACK) and digital competence, highlighting a positive correlation between the two. They showed that while there are weak positive correlations between institutional support and digital competence, stronger correlations exist between self-efficacy and digital competence among teacher educators. Additionally, Falloon (2020) emphasized the importance of expanding teacher education to include competencies necessary for operating effectively and ethically in digitally-mediated environments. He introduced a digital competence framework aimed at better preparing teachers for future classrooms, suggesting that its implementation should be a collective responsibility across educational faculties.

Hector and Maria (2021) explored the "digital competence of pre-service early childhood and primary school teachers", finding that these future educators generally possess a medium level of digital competence, with particular challenges in content creation. The study revealed that digital competence improves significantly over time and through coursework, though no significant differences were observed based on the type of university or gender. These findings suggest the need for curriculum design and teacher training programs to focus more on enhancing digital competence among pre-service teachers.

Lisbeth A. et al. (2019) found that teacher educators in higher education often do not utilize digital technologies for pedagogical purposes and identified a significant gap in digital competence between educators (high and low self-reported competence). Study highlighted the inadequacies in initial teacher education (ITE) regarding ICT training, with newly qualified teachers reporting poor quality and contributions from their ITE in developing professional digital competence (PDC). Studies underscore the need for continuous improvement in digital competence training for educators, particularly in integrating the digital tools effectively into teaching practices.

Moreno et al. (2019) analyzed the development of the TPACK model through a review of 37 publications from 2014 to 2017. Their study categorized the research based on public education levels, topics, main results, and methodological designs. They found that the majority of studies focused on integrating technology with the TPACK model, professional development related to TPACK, and educators' attitudes towards ICT. Most studies used questionnaires and involved multiple authors, with a predominance of English-language publications. The review highlighted that daily practice in TPACK integration often lagged behind current research.
Gonzalez et al. (2017) investigated the "Digital competence" of university students, examining the impact of gender and age on their ICT skills. Their findings indicated that students rated their ICT knowledge negatively but their management of devices and attitudes towards technology positively. Significant differences were noted, with men generally scoring higher in knowledge, management, and attitude, while older students had more positive attitudes. Basilotta et al. (2020) conducted a "systematic review of literature" on digital competence in higher education, revealing that many studies focus on instructors' self-assessment and the gaps in their digital skills, particularly in evaluating educational practices. Mannila et al. (2018) assessed teachers' self-efficacy and training needs, identifying key areas for professional development based on responses from 530 teachers, thus providing insights for future training initiatives.

Methodology

This study provides a comprehensive and descriptive review of the snowball sampling method, drawing from articles published in national and international journals. Snowball sampling, or chain-referral sampling, is a non-probability technique often employed in qualitative research to reach difficult-to-access or hidden populations. This method enables you to uncover relevant papers by utilizing existing networks and connections, which may reveal resources that traditional random sampling could overlook. Despite this, the in-depth and contextually rich data gathered from these sources can offer significant insights for the review (Naderifar and Ghaljaie, 2017). The selected articles were sourced from databases such as Science Direct, Scopus, and Google Scholar, covering English languages between 2019 and 2023. Data collection involved English keywords like 'Digital Competence,' 'TPACK,' and 'Artificial Intelligence,' initially, all qualitative research articles were gathered, and those containing the specified keywords in their abstracts were included in the preliminary list. Subsequently, a checklist was employed to document the relevant findings.

The initial search yielded 250 articles 100 articles from the Scopus, 105 from the Google Scholar, and 45 from the Science Direct. In the next step, all articles related to study were gathered. We included articles that contained the specified keywords in their abstracts, while excluding the rest. To document our findings, we utilized a checklist."Ultimately, 11 articles were deemed relevant and selected for the review. Various snowball sampling methods can enhance scientific research, support community-based data collection, and facilitate health education programs. This technique enables researchers to reach populations that might otherwise be difficult to access. Therefore, incorporating snowball sampling strategies is recommended when working with participants in educational programs or research studies (Naderifar and Ghaljaie, 2017).

Digital Competence and TPACK in the age of Artificial Intelligence

Digital Competence and TPACK have crucial role in shaping effective teaching and learning experiences, especially in the context of AI education. Digital competence stands out as a frequently encountered skill within educational frameworks. It encompasses an educator's ability to effectively use digital tools, navigate online resources, and integrate technology into teaching practices. In the age of AI, digital competence extends beyond basic computer literacy. Educators need to understand AI concepts, applications, and ethical implications to prepare students for an AI-driven world.

TPACK Framework provides a holistic perspective on effective teaching. It emphasizes the interplay between three essential components: Content Knowledge (CK) refers to subject-specific expertise, Pedagogical Knowledge (PK) encompasses teaching strategies, instructional design, and classroom management, and Technological Knowledge (TK) relates to the effective use of technology in teaching and learning. TPACK recognizes that effective teaching involves integrating these three domains seamlessly. When applied to AI education, TPACK becomes AI-TPACK, emphasizing the unique challenges and opportunities related to teaching AI.

Educators need a solid understanding of AI concepts, including machine learning, neural networks, natural language processing, and robotics. They should be aware of AI's impact on various fields (e.g., healthcare, finance, transportation) and its ethical implications. Effective AI teaching involves designing engaging learning experiences that demystify AI for students. Project-based learning, real-world applications, and problem-solving activities can enhance AI education. Educators must be comfortable using AI tools and platforms. They should explore AI-driven educational technologies, adaptive learning systems, and AI-powered assessment tools (Kim et al., 2021).

Among various digital technologies, artificial intelligence (AI) is increasingly being utilized in education to enhance the management and tracking of educational systems. The TPACK model acknowledges that the competencies required by teachers extend beyond traditional discipline-specific knowledge, technological skills, and pedagogical techniques. Instead, it emphasizes a new type of literacy—one that encompasses AI knowledge and readiness. This updated form of literacy involves a more integrated approach, blending technological proficiency with professional competencies in a way that is inclusive and adaptable. In the context of digital and online learning, a thorough understanding of TPACK will be most effective when teachers incorporate AI knowledge, skills, and literacy into their teaching practices. This integration not only enhances the learning experience but also ensures that educators are well-equipped to navigate and leverage the evolving digital landscape (Karan, 2022).

Fig. 4. Intersection of DC, AI and TPACK

Discussion

Building upon the existing findings, several critical dimensions emerge. First, Lisbeth A. et al. (2019) highlight a significant gap in how teacher educators in higher education utilize digital technologies for the pedagogical purposes. in spite of the proliferation of digital tools, there remains room for improvement in integrating them efficiently into the teaching practices. Addressing this gap requires targeted training programs that empower educators to harness technology for enhanced learning experiences. Second, Moreno et al. (2019) emphasize the "Technological Pedagogical Content Knowledge" (TPACK) model. This framework recognizes the interplay between "technological, pedagogical, and content knowledge". While research has explored TPACK integration, the translation of theoretical insights into daily classroom practices remains a challenge. Bridging this gap involves professional development initiatives that bridge theory and application, ensuring

educators can seamlessly blend technology with subject matter expertise. Third, Gonzalez et al. (2017) investigated digital competence among university students, considering gender and age differences. Their findings revealed that men generally scored higher in knowledge, management, and attitude toward technology. Older students exhibited more positive attitudes. Understanding these disparities is crucial for designing inclusive training programs that cater to diverse educator profiles. It also underscores the need to address any gender-based biases in digital competence development. Finally, Mannila et al. (2018) assessed teachers' self-efficacy and training needs. Their study provides insights for professional development. Recognizing that digital competence evolves over time, educators must engage in continuous learning. Collaborative efforts across educational faculties, institutions, and policymakers are essential. By collectively prioritizing digital competence, we can equip educators with the skills needed to navigate the ever-evolving digital landscape. In summary, these dimensions intersect to shape the landscape of digital competence in education. As we expand our understanding, we recognize the urgency of fostering a digitally competent teaching force—one that not only adapts to technological advancements but also leverages them to enhance student learning outcomes.

In recent years, research has shed light on the digital competence of educators across various educational levels. Portillo et al. (2020) revealed that teachers, particularly those in primary and secondary schools, perceived themselves as only partially competent in digital skills, emphasizing challenges in using specific tools for teaching and learning. Basilotta et al. (2020) conducted a systematic review, highlighting gaps in competencies, especially related to evaluating educational practices. Galimullina et al. (2022) emphasized the need for a comprehensive model tailored to future teachers' digital competencies. Meanwhile, Cebi et al. (2022) and Elen et al. (2017) explored digital competencies in pre-service teachers, emphasizing the positive correlation between self-efficacy and digital competence. Falloon (2020) underscored the collective responsibility of educational faculties in preparing teachers for digitally mediated environments. Additionally, Hector Galindo-Dominguez and Maria José Bezanilla (2021) found that pre-service teachers generally possessed a medium level of digital competence, with room for improvement. Lisbeth A. et al. (2019) highlighted gaps in initial teacher education (ITE) regarding ICT training, emphasizing the need for continuous improvement. Moreno et al. (2019) reviewed TPACK development, revealing that daily practice often lags behind research. Gonzalez et al. (2017) explored digital competence among university students, considering gender and age differences. Mannila et al. (2018) assessed teachers' self-efficacy and training needs, providing insights for

professional development. These studies collectively emphasize the complexities and opportunities associated with digital competence in education, calling for targeted interventions and collaborative efforts.

Conclusion

In the rapidly evolving landscape of education, digital competence and the integration of technology are pivotal. The New National Education Policy 2020 (NEP 2020) underscores the need to harness disruptive technologies and leverage digital tools to enhance pedagogy. As we step into the AI age, educators must adapt, not only mastering digital skills but also understanding the intricate interplay between "technological, pedagogical, and content knowledge" (TPACK). NEP 2020's vision of a 'Global Knowledge Superpower' hinges on our ability to seamlessly blend AI-driven innovations with effective teaching practices. By fostering continuous professional development, collaborative efforts, and research, we can empower educators to navigate this transformative journey and ensure that every child benefits from a digitally enriched education.

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TRANSFORMING EDUCATION IN INDIA: THE ROLE AND CHALLENGES OF MULTIDISCIPLINARY LEARNING UNDER NEP 2020

Gazalah Hassan[1]
Najmah Peerzada[2]

Abstract

Multidisciplinary education is becoming an essential strategy to meet the varied learning requirements of students in modern classrooms. In response to the rapidly changing global landscape, the National Education Policy (NEP) 2020 seeks to modernise India's educational system by advocating for a holistic, inclusive, and multidisciplinary approach. The concept of multidisciplinary education, which integrates knowledge and skills across multiple disciplines, is central to this vision. This paper examines the key provisions of the NEP 2020 concerning multidisciplinary education, assessing both its benefits and challenges. It explores how such an approach fosters a comprehensive understanding, enhances creativity and problem-solving skills, and promotes flexibility in students' academic and career choices. The NEP's emphasis on interdisciplinary collaboration, integration of traditional knowledge systems, and the introduction of vocational training are critical components in this shift. However, challenges such as the need for qualified educators, adequate infrastructure, and administrative reforms pose significant obstacles to successful implementation. Despite these challenges, multidisciplinary education is viewed as a critical strategy to prepare students for the complexities of the modern world, enhancing their adaptability, critical thinking, and global awareness. This paper concludes with a call for substantial investment and policy reforms to ensure the successful adoption of multidisciplinary education in India.

Keywords: NEP 2020, Multidisciplinary, Holistic Development, Critical Thinking, Mid- Day Meals.

Introduction

In a world that is increasingly interconnected and rapidly evolving, conventional educational systems that rely on rote memorization and isolated subjects need modernization. As societies face complex global challenges—from climate change to advancing technologies—the demand for a more integrated educational framework is more urgent than ever. Solutions to these challenges often require expertise from various fields and the ability to approach problems from different perspectives. For

[1]Research Scholar, Department of Education, University of Kashmir
[2]Professor, Department of Education, University of Kashmir

instance, solving global climate change requires collaboration between environmental science, economics, politics, and social justice. This intersectionality, or the combination of diverse insights, is where multidisciplinary education becomes vital. Multidisciplinary education, which combines knowledge and skills from various disciplines, emerges as a crucial strategy to address the diverse learning requirements of students and equip them with the competencies needed to thrive in this continually changing environment. The ability to think critically, adapt quickly, and work across different fields is no longer just beneficial but essential for success in the 21st century. The National Education Policy 2020 serves as a progressive and visionary document aimed at transforming higher education by promoting its inclusivity, comprehensiveness, and multidisciplinary orientation. The policy calls for a departure from traditional, soloed educational approaches, advocating instead for a system that encourages cross-disciplinary learning and the development of diverse skills. Holistic and multidisciplinary education offers a unique approach to learning, allowing students to explore and engage with different courses or subjects across a variety of fields. It is an approach to curriculum integration that emphasises the various disciplines and a range of viewpoints when illustrating a subject, theme, or problem (Roy, 2022, p. 647). This method ensures that education goes beyond the confines of a particular discipline, providing students with the flexibility to shape their academic paths according to their interests and aspirations. Moreover, such an approach prepares them to tackle the complexities of real-world challenges, which often require insights from multiple disciplines. This kind of interdisciplinary approach not only enriches students' learning experiences but also prepares them to work collaboratively across various sectors, a skill that is highly valued in the global job market

NEP 2020 defines holistic and multidisciplinary education as integrating all aspects of human development, including intellectual, aesthetic, social, physical, emotional, and moral skills. This broad vision ensures that students are not only well-versed in their chosen fields but also equipped with the tools to understand and engage with the world from a variety of perspectives, fostering well-rounded individuals who can contribute meaningfully to society. The policy also emphasises the importance of flexibility in learning, enabling students to pursue courses in different fields, thereby enhancing their capacity to innovate and collaborate across disciplines. Students can select topics of interest with a variety of subject options and entry and exit options during the undergraduate course with the aid of this type of approach. The aim of the NEP 2020 is not only to improve outcomes for individual students but also to advance societal development. By promoting a more inclusive and interdisciplinary methodology, the policy seeks to cultivate a generation of students who are not only

informed but also empathetic, socially conscious, and equipped to tackle the urgent challenges of our era. Sustainable development, for instance, should no longer be considered solely from the perspective of environmental science. It must also integrate economic, political, and social facets. By incorporating insights from various disciplines, students will be more adequately prepared to create solutions that are both innovative and enduring. This comprehensive approach also fosters global citizenship. The capability to comprehend and navigate various cultural, political, and economic landscapes is vital in today's interconnected world. A multidisciplinary education equips students to collaborate in diverse groups and engage with a range of perspectives, thereby promoting an understanding of different global challenges and the intricate relationships among them. According to MHRD (2020, p. 3), the primary goal of the multidisciplinary approach in higher education under NEP-2020 is "to ensure the unity and integrity of all knowledge."

The Concept of Multidisciplinary Education

Multidisciplinary education is an innovative educational strategy that enables students to learn about and investigate different subjects or curricula across various fields. The National Education Policy (NEP) 2020 aims to revolutionize India's education system. The policy emphasises a multidisciplinary approach to education. Multidisciplinary education combines several disciplines to provide a complete learning experience. This program aims to enhance problem-solving skills by highlighting the interconnection of different professions. Implementing multidisciplinary education in schools and colleges helps students develop a greater grasp of a subject through several disciplines. This strategy promotes creativity, critical thinking, teamwork, and communication skills. The NEP 2020 emphasises incorporating this educational style into the curriculum at an early age. The YashPal Committee (2009) emphasises the value of education that is multidisciplinary. The committee's report states that "exposing students to a variety of disciplines is necessary, particularly at the undergraduate level" (Yash Pal, 2009, p. 21). Exposing students to many disciplines enhances their understanding of their chosen profession and fosters appreciation for diverse knowledge systems. This promotes well-rounded citizenship and prepares them for the future.

Objectives

1. To Analyze the Provisions of NEP 2020 for Multidisciplinary Education.
2. To assess the benefits of multidisciplinary education.
3. To Identify the Challenges of Implementing Multidisciplinary Education.

Methodology

The research paper is exclusively based on secondary data. The paper employs an interpretative approach where qualitative data are collected and analysed by documenting the research papers from journals, reports of various organizations and commissions, books, articles published in international, national, and local papers, and online documents.

Importance of Multidisciplinary Education:

1. **Holistic Understanding:** - A key advantage of using a multidisciplinary method in education is that it fosters a more comprehensive understanding of the world. Instead of examining individual departments and their topics in isolation, an interdisciplinary approach weaves elements from each department into the study programs of the others.

2. **The Opportunity to Make Choices:** A multidisciplinary approach provides students with flexibility and allows them to select their preferred subjects, focusing on areas they wish to study. Courses that can enhance their knowledge. Subjects that can elevate the standard of education. The option to choose from both science and humanities, as well as the chance to engage in fine arts and sports, will offer students a broad spectrum of subjects without the limitations they previously encountered. Through innovative combinations of subjects, a modern curriculum, adaptable options, and various entry and exit pathways during their undergraduate studies, students can pursue their interests and opt for the careers they desire.

3. **Collaborative Relationship**: - A multidisciplinary approach fosters a cooperative relationship between teachers and students. This teamwork-oriented atmosphere encourages the sharing of ideas and the enhancement of a wider range of skills. Team members work together and exchange information, pooling their expertise and perspectives to cultivate a thorough comprehension of the matter at hand.

NEP 2020 and Its Emphasis on Multidisciplinary Education:

With the recently unveiled National Education Policy 2020, India has made a significant advancement in its quest to modernize its educational landscape. This form of education aims to foster an individual's overall development by delving into various aspects of knowledge. The NEP 2020 aligns with this idea and strives to

enhance it across all educational levels. To achieve this, the NEP outlines multiple initiatives designed to promote a multidisciplinary approach within education.

Firstly, it supports interdisciplinary studies across various educational entities. This involves collaboration among universities, colleges, research organizations, and other institutions.

Secondly, it advocates for the incorporation of traditional Indian knowledge systems into contemporary curricula, enriching the learning experience by offering students a more comprehensive perspective on different subjects.

Finally, the NEP promotes the creation of courses and programs that encompass a range of fields, including mathematics, science, arts, technology, and humanities.

Multidisciplinary education plays a crucial role in India's modern education framework. By adopting this concept, the NEP 2020 aims to provide students with access to a broader base of knowledge and a diverse skill set, equipping them for an ever-evolving world. The NEP 2020 highlights the necessity for a more comprehensive and multidisciplinary approach to education within the Indian education system. The policy proposes various methods for implementing this educational model, including the incorporation of vocational training, the establishment of interdisciplinary programs, and the encouragement of research and innovation. In order to achieve a multidisciplinary approach in higher education, NEP-2020 proposes three main types of institutions: autonomous degree-granting colleges (AC), teaching-intensive universities, and research-intensive universities. To put it briefly, NEP-2020 advocates for a multidisciplinary approach to education and does away with the associated culture of higher education. The NEP 2020 recommends that vocational training be woven into standard education to equip students with relevant skills and knowledge that align with the job market. Incorporating vocational education represents a vital component of a more comprehensive and multidisciplinary education. This initiative will enable students to acquire practical skills that can be utilized in real-life situations, ultimately fostering self-sufficiency. The establishment of multidisciplinary programs stands out as another essential element of a more comprehensive and multidisciplinary education. The NEP 2020 advocates for schools and universities to provide interdisciplinary programs that merge insights from various fields to address real-world challenges. This approach will aid students in honing their critical thinking abilities and motivate them to challenge assumptions while exploring issues from diverse viewpoints. "All higher education institutions (HEIs) shall strive to become multidisciplinary institutions by 2040 and shall strive to have larger student enrollments, preferably in the thousands, for the creation of vibrant multidisciplinary communities and for the optimal use of infrastructure and resources" (MHRD, 2020, p. 34).

Benefits of Multidisciplinary Education:

A comprehensive and multidisciplinary education system has the potential to offer significant advantages to students and society in India. By offering a broader spectrum of educational experiences, students might be more prepared to meet the evolving requirements of the job market and society as a whole. Furthermore, a multidisciplinary approach to education could enable students to cultivate a more rounded perspective on global issues, fostering increased empathy, tolerance, and appreciation for various cultures and viewpoints. Innovative and adaptable curricular frameworks will allow for creative integrations of various fields of study and will provide numerous opportunities for entering and leaving programs, thereby eliminating the existing rigid barriers and generating new opportunities for continuous learning. Through the introduction of students to diverse fields and disciplines, multidisciplinary education encourages creative thinking and innovation. Learners can link concepts from different subjects, resulting in unconventional problem-solving and inventive solutions. This approach is especially advantageous in our fast-changing world, where there is a significant need for adaptable and creative thinkers.

Challenges of Multidisciplinary Education:

Although the NEP presents an optimistic vision, the execution of a comprehensive and multidisciplinary educational system, along with the advantages that come from such implementation, faces numerous obstacles.

A significant challenge is the lack of qualified educators skilled in multidisciplinary teaching approaches. Although the NEP advocates for a revised teacher education framework that encompasses training in these methods, it may take a while to prepare enough teachers to satisfy the demand.

Establishing a comprehensive and interdisciplinary education framework demands substantial resources, including qualified educators, suitable infrastructure, equipment, and a curriculum that encompasses multiple disciplines. Nevertheless, numerous educational institutions in India, especially in rural regions, are insufficiently equipped to offer a wide array of learning experiences. Therefore, the government needs to make significant investments in education and ensure that schools have the necessary resources to adopt the new educational system. Many schools are deficient in both the infrastructure and technology required to facilitate a multidisciplinary curriculum, and educators may not possess the training or skills to teach subjects beyond their primary focus. Furthermore, the introduction of a more integrated and interdisciplinary educational approach may entail considerable

modifications to the curriculum, which can be an extensive and complicated undertaking.

The issues concerning infrastructure are quite evident. To integrate various disciplines within the same institutions, having suitable infrastructure in place becomes crucial. A major problem is the lack of equipment, the limited access to different types of resources, and the existing rigidity of the system and administration. Another significant challenge that must be tackled is the necessity for administrative responsiveness. The administration should align with the institutions' immediate requirements and ensure resource availability.

Conclusion

The National Education Policy (NEP) 2020 outlines a transformative vision for India's educational framework, highlighting the significance of multidisciplinary education as a crucial element in promoting comprehensive and inclusive learning. By merging knowledge from various disciplines, the NEP aspires to cultivate a generation of learners equipped with the essential critical thinking, creativity, and problem-solving capabilities needed to navigate an increasingly intricate and connected world. This paper has emphasized the numerous advantages of multidisciplinary education, such as its ability to enhance intellectual adaptability, encourage a broad understanding of global challenges, and offer students expanded career opportunities through the integration of traditional knowledge systems, vocational training, and interdisciplinary collaboration.

Nevertheless, the journey towards fulfilling the NEP's vision is fraught with challenges. The shortage of qualified educators experienced in multidisciplinary teaching methods, insufficient infrastructure, and bureaucratic obstacles present significant barriers to effective implementation. Addressing these challenges demands unified efforts from the government, educational institutions, and various stakeholders to ensure that the necessary resources, training, and policy reforms are established. In spite of these hurdles, multidisciplinary education possesses vast potential to revolutionize India's educational landscape. By equipping students with the evolving demands of the future, fostering creativity and innovation, and shaping well-rounded global citizens, multidisciplinary education is a fundamental strategy for tackling the complexities of the contemporary world.

In summary, for India to fully capitalize on the advantages of this approach, considerable investment in teacher training, infrastructure enhancement, and curriculum development is imperative. Only through these reforms and a commitment to a flexible, interdisciplinary framework can the vision of a comprehensive, multidisciplinary education system become a reality. As India

embraces this transformative educational shift, it will not merely prepare its students for the future but also contribute to a more innovative, adaptable, and interconnected global community.

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ACCESS, EQUITY, QUALITY AND INCLUSION IN EDUCATION: A QUALITATIVE ANALYSIS

Ghulam Ud Din Qurashi[1]
Firdoos Ahmad Tantry[2]
Tasleema Jan[3]

Abstract

This qualitative research paper examines the critical issues of access, equity, quality, and inclusion in education systems worldwide. Despite significant progress in expanding educational opportunities globally, substantial disparities persist, particularly for marginalised and disadvantaged groups. This study aims to analyse key barriers to educational access and equity, explore strategies for improving educational quality and inclusiveness, and provide recommendations for creating more equitable and inclusive education systems. Using a comprehensive literature review and thematic analysis of empirical studies, this research addresses four main questions: (1) What are the primary barriers to educational access and equity? (2) How do socioeconomic factors influence educational quality and inclusion? (3) What strategies have been effective in promoting inclusive education? (4) How can education systems be reformed to better address issues of access, equity, quality, and inclusion? The findings indicate that addressing socioeconomic factors, cultural barriers, and systemic inequalities is crucial for improving educational access and equity. Furthermore, enhancing teacher quality, implementing inclusive pedagogies, and leveraging technology are identified as key strategies for improving educational quality and inclusion. The paper concludes with recommendations for policymakers and educators to promote more accessible, equitable, high-quality, and inclusive education for all learners.

Keywords: Educational Access, Equity, Quality, Inclusion, Barriers, Strategies.

Introduction

Education is widely recognized as a fundamental human right and a critical driver of individual and societal development. The United Nations Sustainable Development Goal 4 aims to "ensure inclusive and equitable quality education and promote lifelong learning opportunities for all" by 2030 (United Nations, 2015). However, millions of children and youth worldwide still lack access to quality education, and significant

[1,3]Research Scholars, Department of Education, University of Kashmir, Srinagar
[2]Professor & Dean, School of Education and Behavioural Sciences, University of Kashmir

disparities persist in educational opportunities and outcomes across different social groups (UNESCO, 2020).

The concepts of access, equity, quality, and inclusion in education are closely interrelated and essential for creating fair and effective education systems that empower all learners to reach their full potential. Access refers to the availability and accessibility of educational opportunities for all individuals, regardless of their background or circumstances. Equity goes beyond mere access, focusing on fairness and inclusion in the educational process and outcomes. Quality education encompasses the effectiveness of educational systems in promoting learning and developing the knowledge, skills, and competencies needed for success in life and work. Inclusion aims to ensure that all learners, regardless of their diverse needs and abilities, can participate fully in the educational process and achieve their potential.

This research paper aims to provide a comprehensive analysis of these four key dimensions of education and their implications for educational policy and practice. By examining the current state of educational access and equity globally, exploring the factors influencing educational quality and inclusion, and discussing evidence-based strategies for addressing persistent challenges in these areas, this study seeks to contribute to the ongoing efforts to create more equitable, inclusive, and high-quality education systems worldwide.

Research Questions

This study addresses the following research questions:

1. What are the primary barriers to educational access and equity in different contexts worldwide?
2. How do socioeconomic factors influence educational quality and inclusion?
3. What strategies have been effective in promoting inclusive education and improving educational quality for diverse learners?
4. How can education systems be reformed to better address issues of access, equity, quality, and inclusion?

Objectives

The objectives of this research paper are:

1. To identify and analyze the key barriers to educational access and equity across different contexts and populations.
2. To examine the relationship between socioeconomic factors and educational quality and inclusion.

3. To evaluate evidence-based strategies for promoting inclusive education and improving educational quality for diverse learners.
4. To provide recommendations for policymakers, educators, and stakeholders to create more accessible, equitable, high-quality, and inclusive education systems.

Methodology

This qualitative research study employs a comprehensive literature review and thematic analysis of empirical studies to address the research questions and objectives. The methodology follows these steps:

1. **Literature Search:** A systematic search of peer-reviewed articles, books, and reports was conducted using academic databases such as ERIC, Google Scholar, and JSTOR.
2. **Selection Criteria:** Studies were selected based on their relevance to the research questions, methodological rigor, and publication date (prioritizing research published within the last 15 years).
3. **Data Extraction:** Relevant information from selected studies was extracted, including research design, sample characteristics, key findings, and implications.
4. **Thematic Analysis:** A thematic analysis was conducted to identify recurring themes and patterns across the literature related to barriers, strategies, and outcomes in educational access, equity, quality, and inclusion.
5. **Synthesis and Interpretation:** The findings from the thematic analysis were synthesized and interpreted to address the research questions and objectives.

Findings and Discussion

Barriers to Educational Access and Equity

The analysis of the literature reveals several persistent barriers to educational access and equity:

i. Socioeconomic Factors: Numerous studies highlight the significant impact of socioeconomic status on educational access and outcomes. A meta-analysis by Sirin (2005) found a medium to strong correlation between socioeconomic status and academic achievement, with stronger effects at the student level compared to the school level. This relationship highlights the need for targeted interventions to support disadvantaged students and families.

ii. Geographic Isolation: Rural and remote areas often face challenges in accessing educational facilities. Burde and Linden (2013) demonstrated that reducing the distance to school by building village-based schools in Afghanistan increased enrollment by 42 percentage points and improved test scores. This finding highlights the importance of addressing physical barriers to education access.

iii. Gender Discrimination and Cultural Barriers: Despite progress, gender disparities in education persist in many regions. A systematic review by Sperling and Winthrop (2015) identified various barriers to girls' education, including early marriage, household responsibilities, and cultural norms that prioritise boys' education. Addressing these barriers requires culturally sensitive interventions and policy reforms.

iv. Disability and Special Educational Needs: Children with impairments encounter considerable challenges to education. Kuper et al. (2014) discovered that children with impairments were considerably less likely to attend school than their non-disabled counterparts in 30 nations. This conclusion underlines the importance of more inclusive education systems that cater to varied learning requirements.

v. Conflict and Political Instability: Education is often disrupted in conflict-affected areas. Lai and Thyne (2007) found that civil wars reduce educational expenditures and enrollment rates, with long-lasting effects even after conflicts end. This highlights the importance of education in emergency and post-conflict settings.

Influence of Socioeconomic Factors on Educational Quality and Inclusion

The analysis reveals a strong relationship between socioeconomic factors and educational quality and inclusion:

i. Resource Disparities: Gamoran and an (2016) found that targeted resource allocation to disadvantaged schools can help narrow achievement gaps between high- and low-income students. This highlights that addressing resource inequities is crucial for promoting educational quality and inclusion.

ii. Teacher Quality: Darling-Hammond (2000) demonstrated that teacher quality is one of the most important factors influencing student achievement, with effects outweighing those of class size, overall spending, and teacher salaries. However, high-quality teachers are often unequally distributed, with disadvantaged schools struggling to attract and retain experienced educators.

iii. Early Childhood Education: Duncan et al. (2007) discovered that early childhood poverty has long-term implications on academic success and attainment. This highlights the importance of early interventions and high-quality early childhood education programs in mitigating the effects of socioeconomic disadvantage.

iv. Parental Involvement: A meta-analysis by Castro et al. (2015) found that parental involvement has a significant positive effect on student academic achievement across diverse populations. However, socioeconomic factors can influence the extent and nature of parental involvement in education.

Effective Strategies for Promoting Inclusive Education and Improving Quality

The literature review identified several evidence-based strategies for promoting inclusive education and improving educational quality:

i. Teacher Professional Development: A meta-analysis by Kraft et al. (2018) found that teacher professional development programs can have significant positive effects on student achievement when designed and implemented effectively. This highlights the importance of investing in ongoing teacher training and support.
ii. Gay (2010) found that culturally sensitive teaching leads to better academic achievement for different student populations. This method emphasizes the necessity of including students' cultural backgrounds and experiences in the learning process.
iii. Universal Design for Learning (UDL): According to a study by Ok et al. (2017), all students, including those with disabilities, can benefit from improved learning outcomes when UDL concepts are applied in the classroom. This paradigm enables flexibility in how material is delivered, how students demonstrate knowledge, and how they are engaged in learning.
iv. Technology Integration: Means et al. (2013) conducted a meta-analysis which revealed that blended learning strategies that combine online and in-person training can result in better learning results. This demonstrates how utilizing technology can improve the quality and accessibility of education.
v. School-Wide Positive Behavior Interventions and Supports (SWPBIS): Horner et al. (2009) demonstrated that applying SWPBIS can improve school atmosphere, student conduct, and academic performance. This strategy focuses on fostering a happy and inclusive educational atmosphere.

Recommendations for Education System Reform

Based on the findings of this research, the following recommendations are proposed for policymakers, educators, and stakeholders:

i. Implement targeted financial support programs, such as conditional cash transfers and scholarships, to address socioeconomic barriers to education access and equity.
ii. Invest in infrastructure development, including school construction and transportation, to improve physical access to education, particularly in rural and remote areas.
iii. Develop and implement comprehensive policies to address gender discrimination and cultural barriers to education, including awareness campaigns and incentives for girls' education.
iv. Enhance inclusive education practices by offering support and accommodations for students with disabilities and special needs.
v. Prioritize teacher professional development programs that focus on effective instructional strategies, cultural competence, and inclusive practices.

vi. Implement curriculum reforms that promote relevance, coherence, and focus, while incorporating critical thinking and problem-solving skills.
vii. Adopt formative assessment practices and provide timely, constructive feedback to support student learning and improve educational quality.
viii. Foster school leadership that prioritizes instructional quality, inclusive practices, and community engagement.
ix. Develop and implement policies that promote equitable resource allocation, targeting additional support to disadvantaged schools and students.
x. Encourage family and community engagement in education through collaborative partnerships and programs that support parental involvement.
xi. Leverage technology to expand access to quality educational resources and support personalized learning, particularly in underserved areas.
xii. Implement data-driven decision-making processes to identify disparities, monitor progress, and inform targeted interventions.

Conclusion

This qualitative research study has examined the complex issues of access, equity, quality, and inclusion in education through a comprehensive literature review and thematic analysis. The findings highlight the multifaceted nature of educational disparities and the need for comprehensive and coordinated approaches to address persistent challenges.

The study identified several key barriers to educational access and equity, including socioeconomic factors, geographic isolation, gender discrimination, disability, and conflict. The strong influence of socioeconomic factors on educational quality and inclusion was also evident, emphasising the need for targeted interventions to support disadvantaged students and communities.

Effective strategies for promoting inclusive education and improving educational quality were identified, including teacher professional development, culturally responsive pedagogy, and universal design for learning, technology integration, and positive behaviour interventions. These evidence-based approaches offer promising avenues for creating more equitable and inclusive learning environments.

The recommendations provided in this study offer a roadmap for policymakers, educators, and stakeholders to reform education systems to better address issues of access, equity, quality, and inclusion. By implementing these recommendations, education systems can work towards creating more accessible, equitable, high-quality and inclusive learning opportunities for all students.

Future research should focus on evaluating the long-term impact of various interventions on educational outcomes, particularly for marginalised groups.

Additionally, more attention should be given to the intersectionality of various factors affecting educational opportunities and outcomes, to develop more nuanced and effective interventions. Finally, research on innovative approaches to education, such as personalized learning and artificial intelligence in education, should be conducted to explore their potential in promoting access, equity, quality, and inclusion in diverse contexts.

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REVOLUTIONIZING WOMEN'S EDUCATION: MARY WOLLSTONECRAFT'S FEMINIST VISION

Rooheena Farooq[1]
Najmah Peerzada[2]

Abstract

Mary Wollstonecraft emerged as a key figure in the infancy of feminist philosophy. She is celebrated for pioneering in championing women's rights and education's pivotal role in this transformation. She tackled the intricate social and political environments of the Enlightenment and the French Revolution, eras known for their profound discussions on human rights and equality. Wollstonecraft's revolutionary masterpiece, A Vindication of the Rights of Woman (1792), refused the deep-rooted beliefs in women's subservience and supported their access to education and autonomy. Her critique of societal standards, especially the limiting roles expected of women in the home, placed education as a means to achieve personal liberty and progress for society. Despite encountering heated opposition and criticism throughout her existence, Wollstonecraft's concepts have indelibly shaped feminist thought and activism. This study delves into her contributions to feminist theory and educational reform, emphasizing her lasting impact on modern conversations on gender equality and women's empowerment. By exploring Wollstonecraft's biography, literary works, and the scholarly milieu of her era, this study highlights the continuing significance of her advocacy for education and advancing gender equality

Keywords: Mary Wollstonecraft, feminism, Women's education, Gender equality.

Introduction

Mary Wollstonecraft emerged as a pivotal figure in the early stages of feminist philosophy, distinguished by her pioneering efforts to advocate for women's rights and the significance of education. Born in 1759, Wollstonecraft lived through pivotal societal and political transformations, such as the Enlightenment and the French Revolution, which sparked intense debates on human rights and equality. Her influential writings are at the heart of her contributions, especially her revolutionary work, *"A Vindication of the Rights of Woman" (1792).* This revolutionary text challenges prevailing notions of women's inferiority. In the introduction to The

[1] Research Scholar, Department of Education, University of Kashmir.
[2] Professor, Department of Education, University of Kashmir.

Cambridge Companion, Claudia Johnson describes Mary Wollstonecraft as a pivotal figure amid significant societal transformations. She was at the forefront of addressing all the key issues related to political authority, subjugation, liberty, social status, gender roles, marriage, parenting, and more, though only a limited selection is noted. Mary Wollstonecraft emerged as a key influencer in the quest for women's liberation, offering fresh perspectives on the role of education and feminist theory in advancing gender equality. Her pioneering work, A Vindication of the Rights of Woman, challenges the prevailing norms of her time and establishes a fundamental framework for understanding how education and feminist theory contribute to the pursuit of gender equality. She passionately championed women's right to education and independence, critiquing societal norms that confined women to domestic roles. Wollstonecraft viewed education as a path to personal freedom and a critical step towards societal progress towards fairness and justice. The female sex would become the companion and colleague of man, instead of his coquette or slave.

To render mankind more virtuous,
and happier of course,
both sexes must act
from the same principle...
To render also the social compact
truly equitable,
and in order to spread
those enlightening principles,
which alone can ameliorate
the fate of man,
women must be allowed
to found their virtue
on knowledge,
which is scarcely possible
unless they be educated
by the same pursuits as men.

Her perspective was controversial for her era, suggesting that women's educational deprivation was a central issue of their oppression. Furthermore, Wollstonecraft engaged in public discourse and wrote extensively on educational reforms and political morality. Despite facing severe criticism and ridicule in her lifetime, her influence has endured and significantly shaped the course of feminist thought and activism. Her writings continue to provoke discussions today on issues of gender equality, the importance of education, and the evolving status of women in society. During Wollstonecraft's era, the education of women differed significantly from that of men. Women's education focused on skills like sewing, singing, and engaging in

aesthetic conversations, which Wollstonecraft found deeply troubling. She believed that "the most ideal education should be an activity that best enhances the body and cultivates the heart or, in other words, to help the individual develop the virtues that will make them self-sufficient." Wollstonecraft thought that through education, the mind could be shaped, leading her to see women's subjugation as wholly unjust and arbitrary. Wollstonecraft challenged the traditional roles assigned to women, advocating for their autonomy and self-sufficiency. She opposed the idea of marriage as a form of subjugation for women, arguing that women should have the freedom to pursue their objectives and not be limited to domestic duties. Wollstonecraft called for greater financial independence for women, stating that depending on men's financial support put women at risk of exploitation and suppression. She emphasized the importance of education as a means of empowering women, aiding their intellectual growth, enhancing their moral character, and encouraging their active participation in society. Wollstonecraft believed that educated women were better positioned to make informed decisions, assert their rights, and contribute to the betterment of their communities. However, she agreed with many other thinkers of her time, who were often called *"liberal"* for their stance on human rights. As we delve into her endeavours, it becomes clear that Wollstonecraft's ideas continue to resonate and drive current discussions on women's rights and the evolution of the education system. Mary Wollstonecraft's pioneering efforts have laid the groundwork for contemporary feminist thought and forward-thinking educational concepts. Her relentless push for women's rights and her in-depth examination of societal norms have solidified her status as an essential voice in the Enlightenment era. Despite facing numerous hurdles in her life and career, Wollstonecraft's legacy endures. Her contributions not only paved the way for future feminist theories but also contributed to broader debates on human rights and societal fairness. The principles she championed have had a profound impact on numerous feminists, educators, and activists striving to build a society where women have equal opportunities to achieve their intellectual and moral ambitions.

Objectives of the study

1. To explore the educational philosophy of Wollstonecraft.
2. To evaluate Wollstonecraft's views on women's education and its societal impact.
3. To determine the enduring impact of Wollstonecraft's concepts on feminist theory and education.
4. To analyse the contemporary significance of Wollstonecraft's advocacy for gender equality.

Methodology

The study utilizes a comprehensive strategy to thoroughly investigate Mary Wollstonecraft's importance as a pioneer in feminist ideas and her efforts to promote the progress of women's rights. The approach includes qualitative and historical research techniques, integrating primary and secondary materials to fully grasp Wollstonecraft's existence, concepts, and lasting impact.

Wollstonecraft's Feminist Legacy

Mary Wollstonecraft's philosophy of feminism was deeply influenced by her life experiences, her era's intellectual climate, and her involvement in significant social and political matters. Born in a financially precarious family, Wollstonecraft witnessed the challenges faced by women who lacked financial autonomy and access to education. Her upbringing in a male-dominated family, with an abusive father and a submissive mother, underscored the oppressive gender norms of her time. These experiences significantly shaped her perspective on women's rights and the critical importance of women's education. The intellectual atmosphere of the Enlightenment played a pivotal role in shaping Wollstonecraft's ideas. This era, with its focus on reason, individualism, and the quest for knowledge, provided an ideal setting for her feminist philosophy. Influenced by Enlightenment figures such as John Locke and Jean-Jacques Rousseau, Wollstonecraft critically examined their theories, especially Rousseau's stance on women's education. Rousseau suggested divergent educational paths for boys and girls, arguing that women's education should revolve around domestic skills, which Wollstonecraft vehemently disagreed with. Wollstonecraft (1967: 75), categorically submits:

> *But I still insist,*
> *that not only virtue,*
> *but the knowledge of the two sexes*
> *should be the same in nature,*
> *if not in degree,*
> *and that women,*
> *considered not only as moral,*
> *but rational creatures*
> *ought to endeavour to acquire human virtues*
> *(or perfections)*
> *by the same means as men,*
> *instead of being educated like a fanciful kind of half being.*

She contended that women, like men, were rational individuals entitled to the same educational opportunities to enhance their intellect and make significant contributions to society. The 18th century was a period marked by increasing

interest in educational reform, with scholars and educators discussing the aims and methods of education, often side-lining women from these conversations. Wollstonecraft contributed to these discussions, advocating for women to receive an education as comprehensive as that of men. Her drive for self-reliance led her to work as a governess and then as a writer, exposing her to the professional and intellectual barriers women faced. These experiences further solidified her conviction in the need for women's liberation through education and economic independence. Mary Wollstonecraft's involvement with modern social and political matters deeply shaped her philosophical beliefs. The ideals of the French Revolution, including liberty, equality, and brotherhood, had a significant impact on her perspective. Although the revolution aligned with her demands for women's rights, she was critical of its failure to apply these principles to women. In her trailblazing work, *"A Vindication of the Rights of Woman" (1792)*, Wollstonecraft criticized contemporary authors and thinkers, like Rousseau, who upheld patriarchal views on gender. She eagerly argued for women's education and their status as rational individuals, challenging the common belief in women's inferiority and reliance on men. At the heart of Wollstonecraft's philosophy were several fundamental concepts. She maintained that women are capable of reason and should receive education that reflects this. She believed that education would empower women to achieve independence and make significant contributions to society. Moreover, she championed equal rights for women, stressing the importance of providing them with the same opportunities as men in education, employment, and politics. Wollstonecraft argued that societal and political structures needed to be reformed to support gender equality. She criticized the traditional roles that confined women to the home, arguing that these roles restricted women's potential and deprived society of their valuable contributions. Mary Wollstonecraft's philosophy on gender was revolutionary for her era. Her emphasis on the rationality and equality of women laid the groundwork for future feminist movements. By challenging traditional gender roles and advocating for educational and economic opportunities for women, Wollstonecraft's ideas continue to inspire and guide discussions on gender and women's rights today. Her work stands as a cornerstone in the history of feminism, underscoring the lasting relevance of her arguments for gender equality and the empowerment of women.

Mary Wollstonecraft on Women's Education:

Wollstonecraft defines education in her Vindication of the Rights of Women education is the improvement of the individual and the improvement of the social order.

By individual education,
I mean,
for the sense of the word is not precisely defined,
such an attention to a child
as will slowly sharpen the senses,
form the temper,
regulate the passions as they begin to ferment,
and set the understanding to work
before the body arrives at maturity;
so that the man
may only have to proceed,
not to begin,
the important task of learning to think and reason.

Mary Wollstonecraft's support for educating women is a key aspect of her important piece, *"A Vindication of the Rights of Woman" (1792).* She contended that women are logical individuals who can make reasoned judgments and moral choices and that education is crucial for nurturing these abilities. In "A Vindication of the Rights of Woman," the critique of the education system stands out as a key focus. Mary Wollstonecraft was intensely worried about the way education in her era continued to support gender disparities, keeping women in lower positions. The education system failed to focus on the cognitive growth of women. Wollstonecraft contended that without intense mental education, women were unable to enhance their logical reasoning and ability to think critically. Wollstonecraft noted that the education system was set up to ensure women remained reliant on men. Through emphasis on outward achievements, women lacked the readiness for self-reliance or autonomy. She contended that this reliance was harmful not just to women but to the community at large, as it restricted the abilities women could offer. The education system mainly geared up women for their roles in marriage, perpetuating the belief that a woman's main aim was to marry and satisfy her spouse. That is, their education was for the sole purpose of being good wives to their husbands and effective domestic workers (Uzomah, 2017: 382). Wollstonecraft objected to this limited perspective, arguing that women ought to be viewed as self-sufficient beings possessing individual rights and abilities, rather than solely as partners and mothers. In her essay *"Thoughts on the Education of Daughters" (1787),* Wollstonecraft presented advice on the practical ways to educate women, suggesting that their education should focus on enhancing their logical thinking and ethical qualities, rather than just preparing them for marriage *(Wollstonecraft, 1787).* She critiqued the traditional teaching methods that aimed to produce appealing women to men, rather than nurturing their intellectual and ethical growth *(Wollstonecraft, 1787).* Her book *"Mary: A Fiction" (1788)* depicted women's challenges when not receiving

adequate education, pushing them into confined roles. Mary's ordeal, stemming from her lack of intellectual and emotional satisfaction, emphasized Wollstonecraft's view that education is vital for women's personal advancement and contentment *(Wollstonecraft,1788)*. This imaginary story backed her calls for educational changes, highlighting the negative impact of denying women the chance to develop their intellect and character. Through her persistent support for education across her writings, Wollstonecraft emphasized her belief that education is fundamental to women's liberation and progress in society. Wollstonecraft believed in education as a means to uplift women. Wollstonecraft advocated for holistic education that encompassed areas such as literature, science, and philosophy. She was convinced that this type of education would empower women to realize their complete capabilities and evolve into logical, self-reliant individuals. She contended that with this education, women would have the necessary tools to take part in societal affairs, make decisions based on knowledge, and help in advancing the well-being of the community. She contended that with education, a woman could excel as a spouse, mother, and member of the community. Through education, women could make significant contributions to society and attain individual satisfaction. To reinstate women to their proper place as equal rational partners in progress, Wollstonecraft (1967: 34), declares:

> *I wish to persuade women*
> *To endeavour to acquire strength of mind and body*
> *and to convince them that soft phrases, susceptibility of heart,*
> *delicacy of sentiment, and refinement of taste,*
> *are almost synonymous with epithets of weakness...*
> *and that those who are objects of pity*
> *will soon be objects of contempt.*

By challenging the restricted and superficial education offered to women and advocating for broad educational reforms, she set the groundwork for future feminist movements and actions, showing that educating women is key to achieving gender equality and societal fairness. Mary Wollstonecraft's critique of the education system served as a strong condemnation of how social structures and norms reinforced gender disparities. Her proposals for a more equitable and demanding education for women were revolutionary in her era and still echo current debates on gender equality and changes in education. She imagined a society where women were recognized and treated as equals, entirely able to play a role in every facet of society.

Mary Wollstonecraft's Enduring Impact on Modern Feminism and Educational Reforms

Mary Wollstonecraft's feminist movement remains highly relevant in today's world. Her pioneering views on education and women's rights laid the groundwork for contemporary feminist movements, inspiring countless activists, educators and

scholars. The values she championed continue to influence discussions on gender equality, educational reform, and women's roles across various fields. Wollstonecraft's advocacy established a foundation for modern feminist groups, with her principles echoing in the work of organizations like UN Women and local feminist groups striving for gender parity. While Wollstonecraft focused on gender equality, contemporary feminism adopts an intersectional approach, addressing how gender intersects with race, class, and sexual orientation. Her theories on gender equality provide a framework for understanding and addressing these complex issues. The challenge of traditional gender roles, a major concern in Wollstonecraft's writings, remains central to contemporary feminism. Efforts such as campaigns for equal pay, shared parental leave, and the dismantling of gender stereotypes in media and society continue her mission to redefine gender roles and advance equality. Wollstonecraft's emphasis on women's economic freedom is still a cornerstone of feminist economic theory and practice. Addressing the gender pay gap, ensuring workplace equality, and promoting female entrepreneurship align with her vision. Her legacy of fostering public discourse on women's rights endures, with modern movements like #MeToo and Time's Up echoing her efforts to combat structural gender inequality. Initiatives like UNESCO's Global Partnership for Girls and Women's Education, aimed at removing barriers to education for girls globally, reflect Wollstonecraft's advocacy for equal educational opportunities. Her ideas on comprehensive education are mirrored in contemporary policies that promote female participation in STEM fields and holistic education that fosters critical thinking and problem-solving. The shift towards gender-sensitive teaching practices and efforts to empower women through education demonstrates the ongoing relevance of Wollstonecraft's vision, reinforcing her belief in education as a means of empowerment and leadership development.

Conclusion

Mary Wollstonecraft's revolutionary support for women's education has deeply shaped feminist thought and the wider movement towards achieving gender equality. Her ground-breaking text, A Vindication of the Rights of Woman, fiercely challenged the prevailing social standards of her time, which limited women to domestic roles and subservience. Wollstonecraft's emphasis on logical education for women established the basic principles for future educational changes and the advancement of women's rights. Wollstonecraft's feminist perspective went beyond just gaining knowledge; it aimed at enabling women to participate fully in society as autonomous, logical beings. She argued that education was not just a tool for personal improvement but a key element in securing social justice and equality. Her push for mixed-gender education, where boys and girls could learn side by side, was

ground-breaking and has had a significant impact on contemporary educational methods that strive for gender inclusivity. The modern importance of Wollstonecraft's concepts is clear in the continuous worldwide push to ensure fair opportunities for learning for girls and women. Her beliefs are in harmony with the goals of many global groups and strategies aimed at narrowing the educational divide between genders. Moreover, Wollstonecraft's focus on analytical thinking and ethical growth in education still influences today's teaching methods that value comprehensive growth over memorization. Wollstonecraft's work in promoting women's rights has greatly influenced current feminist movements. Her points about the intellectual and ethical strengths of women have been key in the fights for the right to vote, equal wages, reproductive freedom, and against violence based on gender. Her influence is seen in the work of modern feminists who continue to challenge gender stereotypes and push for changes in education and society at large. Mary Wollstonecraft was a pioneer in the cause of women's empowerment through education. Her feminist ideas have not only changed the educational environment but have also ignited a wider movement for gender equality. Her efforts are a strong reminder of the vital role education plays in personal and societal change. Looking back at her achievements, it's clear that the revolution she started is still in progress, and her ideas are as relevant today as they were over 200 years ago.

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