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## **A Study on Implications of New Age Technologies in Higher Education for the Well Being of Students and Teachers**

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### **ABSTRACT**

This study delves into the multifaceted implications of new age technologies in higher education, focusing specifically on the well-being of both students and teachers. As digital tools such as virtual reality, artificial intelligence, and online platforms become increasingly integrated into academic settings, it is imperative to assess their impact beyond academic performance. Through a comprehensive review of existing literature and empirical data, this research examines the effects of these technologies on various dimensions of well-being, including mental health, social interactions, workload management, and job satisfaction. Findings indicate a complex interplay between technological advancements and well-being. While new age technologies offer unprecedented opportunities for enhancing learning experiences and facilitating teaching practices, they also present challenges and risks. Students may experience heightened stress levels due to increased screen time, digital distractions, and feelings of isolation in virtual learning environments. Similarly, teachers may encounter new sources of stress related to adapting to technological changes, managing online classrooms, and balancing digital and traditional teaching methods. Moreover, disparities in access to technology and digital literacy skills can exacerbate inequalities among

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students and educators, further impacting their well-being. However, strategies such as promoting digital literacy, providing support services, and fostering a culture of mindfulness in technology use can mitigate these negative effects and maximize the potential benefits of new age technologies in higher education. Ultimately, this study underscores the importance of adopting a holistic approach to integrating new age technologies in higher education, one that prioritizes the well-being of all stakeholders. By understanding and addressing the challenges posed by these technologies, institutions can create more inclusive, supportive, and balanced learning environments conducive to the flourishing of both students and teachers.

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## 1. INTRODUCTION

In recent years, the landscape of higher education has undergone a profound transformation propelled by the rapid advancement of new age technologies. From virtual reality simulations to artificial intelligence-driven learning platforms, these technologies are reshaping the way knowledge is acquired, disseminated, and applied in academic settings. While the integration of such tools holds immense promise for enhancing educational outcomes and enriching the teaching-learning experience, it also raises important questions regarding their implications for the well-being of students and teachers.

This introduction serves as a preamble to a comprehensive exploration of the multifaceted relationship between new age technologies and well-being in higher education. Drawing upon a synthesis of existing research and empirical evidence, this study aims to unpack the various dimensions of this complex interplay. By examining the impact of digital technologies on mental health, social dynamics, workload management, and job satisfaction, it seeks to provide insights into both the opportunities and challenges posed by their adoption in educational contexts.

Moreover, this study acknowledges the broader socio-economic and cultural factors that influence the equitable access to and utilization of new age technologies among diverse student and faculty populations. Recognizing the importance of fostering inclusive and supportive learning

environments, it calls for a nuanced understanding of how technological innovations intersect with individual well-being and institutional practices.

Through a holistic examination of these issues, this research endeavours to inform policymakers, educators, and stakeholders in higher education about the critical considerations involved in harnessing the potential of new age technologies while safeguarding the well-being of all those engaged in the educational enterprise. Ultimately, it is hoped that this study will contribute to the development of evidence-based strategies and interventions aimed at promoting a balanced and sustainable integration of technology in higher education for the benefit of students and teachers alike.

## **2 .OBJECTIVE OF STUDY**

**Following are the objective of study**

1. To identify the challenges faced by students and teachers in utilizing new age technologies.
2. To evaluate the effectiveness of technology in promoting student well- being.
3. To explore the perception and attitude of students and teachers towards the integration of technology in higher education.

## **3 .STATEMENT OF THE PROBLEM**

New age technologies, such as virtual reality and artificial intelligence, are revolutionizing higher education by offering immersive learning experiences and personalized teaching approaches. Despite the benefits, the rapid integration of new age technologies in higher education can exacerbate inequalities, as access to advanced tools may be limited by socio-economic factors.

In order to find out solution for the following questions this study has been undertaken

1. What are the challenges faced by students and teachers in utilizing new age technologies?
2. What are the effectiveness of technology in promoting student well- being?
3. What are the perception and attitude of students and teachers towards the integration of technology in higher education?

## **4 .REVIEW OF LIETRATURE**

**Pedro (2009)** delves into the impact of technology on higher education, focusing on the “new millennium learners” who are deeply immersed in digital technologies. The paper discusses debates

surrounding the integration of technology into teaching practices, with some advocating for radical transformation while others emphasize enhancing existing methods. It highlights tensions between proponents of educational change and those who view technology primarily as a tool to improve traditional teaching practices.

**Bozalek , Ngambi, and Gachago (2013)** explore the impact of emerging technologies on teaching and learning in South African higher education institutions (HEIs). Using Rogers' diffusion of innovations model, the paper examines the adoption and appropriation of emerging technologies in HEIs. It highlights the need for institutional leaders to create an enabling environment for the widespread use of emerging technologies through recognition of change agents and development of supportive policies.

**Yarbro et al. (2016)** conducted a comprehensive study exploring digital instructional strategies in the classroom, focusing on Mathematics and English Language Arts teachers from different districts and states. The study identified six major digital instructional strategies and 16 related tactics, shedding light on how technology was integrated into daily teaching practices. Their findings highlight the diverse ways teachers incorporate technology, with varying frequency and perceived importance. Moreover, the study elucidates the nuanced relationship between technology use and opportunity to learn, showing differences across specific strategies and subjects. The paper underscores the Importance of ongoing research to support effective technology integration in classrooms, providing valuable insights for educators and policymakers alike.

**McKnight et al. (2016)** examine how educators use technology to improve student learning through a multisite case study across seven exemplary schools in the United States. They document six common digital instructional strategies and identify five roles that technology plays in enhancing teaching and learning. The study emphasizes the importance of aligning technology use with learning research to successfully enhance and transform student learning experiences.

**Abdullah Say kili's (2019)** paper explores the profound impact of digital connective technologies on higher education in the 21<sup>st</sup> century. It highlights how these technologies are reshaping traditional learning processes and structures, leading to the need for a new educational paradigm. The emergence of innovations like open educational resources (OER), massive online open courses (MOOCs), and learning analytics are disrupting traditional learning institutions, allowing learners to access and create knowledge beyond the constraints of time and space. The paper calls for policymakers to reconsider the

implications of digital technologies and develop value-added policies to enhance higher education in the digital age Teaching practices.

## **5 .RESEARCH METHODOLOGY**

This research paper explains the implications of new age technologies to uncover how the integration of digital platforms influences various facets of psychological, emotional, and professional impact on the well-being of both students and teachers. I chose a random selection of respondents including 100 students and 50 teachers who participated in the process of primary data collection through questionnaire method. Between January and March I met the research criteria which I created based on prior and comparable studies.

Me and my colleague assessed the data collected from the 150 respondents with the help of Likert scale and ranking analysis which revealed considerable evidence of the impact of New age technologies that it is crucial for optimizing learning and teaching environments. It ensures that technological integration enhances rather than detracts from the holistic development of individuals.

## **6 .ANALYSIS**

The analysis explores the implications of new age technologies for both teachers and students, focusing on the potential benefits they offer. By examining the ways In which emerging technologies impact teaching and learning experiences, the research aims to uncover the opportunities presented for educators and learners alike. This investigation delves into how advancements in technology can enhance teaching methods, empower educators, and enrich student learning outcomes in the modern educational landscape.

### **6.1 To identify the challenges faced by students and teachers in utilizing new age technologies**

As new age technologies permeate higher education, they promise transformative possibilities for teaching and learning. However, alongside these promises come challenges faced by both students and teachers. This study aims to identify and analyze these obstacles, ranging from digital literacy gaps to concerns about the compatibility of technology with traditional teaching methods. By understanding

and addressing these challenges, stakeholders can effectively navigate the integration of technology, ultimately enriching the educational experience for all involved.

### 6.1.1 Challenges faced by students in utilizing new age technologies

In today’s digital era, students face a myriad of challenges as they navigate the complex landscape of new age technologies. This ranking analysis aims to delve into the various factors influencing students’ experiences with technology, shedding light on the key areas where they encounter various difficulties.

**Table 1**

**Challenges faced by students in utilizing new age technologies**

S NO	CHALLENGES	RANK 1		RANK 2		RANK 3		RANK 4		RANK 5		RANK 6		RANK 7		RANK 8		RANK 9		RANK 10		TOTAL SCORE
		NO OF RESPONDENTS	SCORE	NO OF RESPONDENTS	SCORE	NO OF RESPONDENTS	SCORE	NO OF RESPONDENTS	SCORE	NO OF RESPONDENTS	SCORE	NO OF RESPONDENTS	SCORE	NO OF RESPONDENTS	SCORE	NO OF RESPONDENTS	SCORE	NO OF RESPONDENTS	SCORE	NO OF RESPONDENTS	SCORE	
1	Balancing technology	51	510	3	27	6	48	9	63	2	12	7	35	3	12	3	9	5	10	11	11	737
2	Identifying sources of information	5	50	55	495	3	24	1	7	5	30	4	20	9	36	4	12	11	22	3	3	699
3	Navigating ethical considerations	8	80	3	27	49	392	5	35	4	24	0	0	9	36	14	42	3	6	5	5	647
4	Maintaining data privacy	7	70	5	45	6	48	51	357	4	24	6	30	9	36	4	12	3	6	5	5	633
5	Managing the pressure	5	50	3	27	6	48	6	42	54	324	13	65	0	0	5	15	4	8	4	4	583
6	Adapting to the rapid evolution	1	10	6	54	5	40	0	0	11	66	47	235	6	24	7	21	10	20	7	7	477
7	Access to tech resources	5	50	3	27	2	16	13	91	7	42	8	40	52	208	3	9	5	10	2	2	495
8	Information overload	6	60	5	45	9	72	4	28	4	24	9	45	6	24	50	150	5	10	2	2	460
9	Utilizing support systems	3	30	11	99	6	48	4	28	5	30	4	20	3	12	6	18	51	102	7	7	394
10	Impact of social media	9	90	6	54	8	64	7	49	4	24	2	10	3	12	4	12	3	6	54	54	375
<b>TOTAL</b>		<b>100</b>		<b>100</b>		<b>100</b>		<b>100</b>		<b>100</b>		<b>100</b>		<b>100</b>		<b>100</b>		<b>100</b>		<b>100</b>		

In order to find the challenges faced by the students, the respondents are asked to assign the rank for the challenges. After that by using weighted average technique the score was assigned to each challenge. Finally the challenge which scores the more points ,got the first rank .Then the problem which scores next to the high score, got the second rank. Like this the challenges are assigned by the rank.The points scored by each and every problem faced by the students are shown in Table 1. The rank was assigned according to its total scores and the result is given in Table 2.

**Table 2**

S	FACTOR	RANK	SCORE
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**Student  
New Age**

NO			
1	Balancing technology	1	<b>737</b>
2	Identifying sources of information	2	<b>699</b>
3	Navigating ethical considerations	3	<b>647</b>
4	Maintaining data privacy	4	<b>633</b>
5	Managing the pressure	5	<b>583</b>
6	Adapting to the rapid evolution	7	<b>477</b>
7	Access to technology resources.	6	<b>495</b>
8	Information overload	8	<b>460</b>
9	Utilizing support systems	9	<b>394</b>
10	Impact of social media	10	<b>375</b>

**Challenges with  
Technologies**

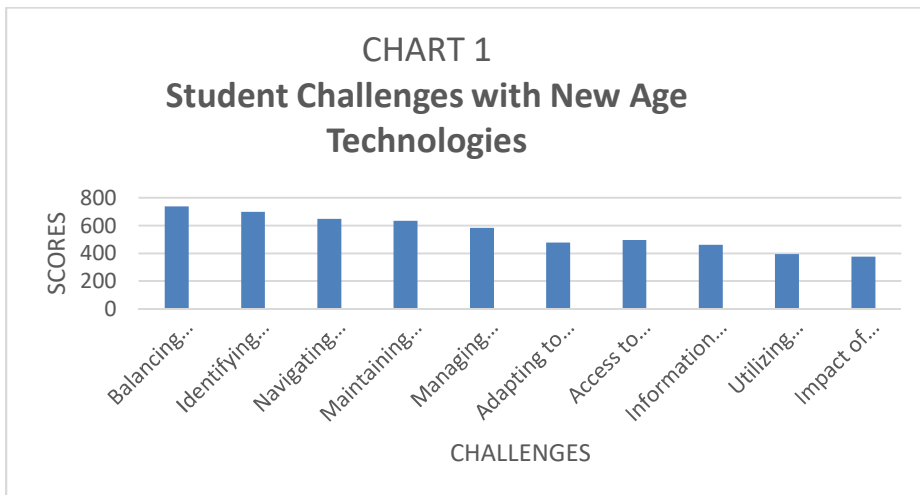


Table 2 and chart 1 are analysed with the help of ranking analysis.

From the above Table 2 we can be concluded that balancing technology seems to be the most significant challenge, because it scores highest points (737), the second significant challenge is Identifying sources of information with 699 points, students feel it difficult to identify sources, the third challenge faced by students is Navigating ethical considerations, it scores 647 points. The fourth significant challenge is Maintaining data privacy with 633 points due to privacy concerns. The fifth significant challenge is Managing the pressure with 583 points. The sixth significant challenge is Access to technology resources with 495 points. The seventh significant challenge is Adapting to the rapid evolution with 477 points. The eighth significant challenge is Information overload with 460 points. The ninth significant

challenge is utilizing support systems with 394 points. The last significant challenge is Impact of social media with 375 points.

### 6.1.2 Challenges faced by Teachers in utilizing new age technologies

In today’s digital era, teachers face a myriad of challenges as they navigate the complex landscape of new age technologies. This ranking analysis aims to delve into the various factors influencing students’ experiences with technology, shedding light on the key areas where they encounter various difficulties

**Table 3**

**Challenges faced by Teachers in utilizing new age technologies**

S NO	CHALLENGES	RANK 1		RANK 2		RANK 3		RANK 4		RANK 5		RANK 6		RANK 7		RANK 8		RANK 9		RANK 10		TOTAL SCORE
		NO OF RESPONDENTS	SCORE	NO OF RESPONDENTS	SCORE	NO OF RESPONDENTS	SCORE	NO OF RESPONDENTS	SCORE	NO OF RESPONDENTS	SCORE	NO OF RESPONDENTS	SCORE	NO OF RESPONDENTS	SCORE	NO OF RESPONDENTS	SCORE	NO OF RESPONDENTS	SCORE	NO OF RESPONDENTS	SCORE	
1	Balancing technology with traditional teaching methods.	27	270	2	18	0	0	3	21	0	0	2	0	0	0	5	15	4	8	7	7	339
2	Teaching students how to evaluate online sources.	3	30	27	243	2	16	0	0	2	12	0	12	2	8	4	12	9	18	1	1	352
3	Modeling ethical technology use	1	10	2	18	27	216	1	7	2	12	2	12	4	16	6	18	5	10	0	0	319
4	Safeguarding student data privacy online	3	30	2	18	1	8	27	189	3	18	3	18	7	28	0	0	0	0	4	4	313
5	Managing expectations for online availability.	3	30	2	18	2	16	3	21	29	174	8	174	0	0	1	3	1	2	1	1	439
6	Keeping up with tech advancements for teaching	1	10	3	27	2	16	0	0	8	48	30	48	1	4	1	3	2	4	2	2	162
7	Addressing digital disparities in access	0	0	2	18	2	16	9	63	2	12	2	12	32	128	1	3	0	0	0	0	252
8	Using social media for educational purposes	4	40	2	18	8	64	3	21	1	6	0	6	0	0	29	87	1	2	2	2	246
9	Helping students navigate information overload	0	0	8	72	4	32	2	14	0	0	2	0	3	12	1	3	28	56	2	2	191
10	Seeking support for integrating technology effectively	8	80	0	0	2	16	2	14	3	18	1	18	1	4	2	6	0	0	31	31	187
<b>TOTAL</b>		<b>50</b>		<b>50</b>		<b>50</b>		<b>50</b>		<b>50</b>		<b>50</b>		<b>50</b>		<b>50</b>		<b>50</b>		<b>50</b>		

In order to find the challenges faced by the Teachers, the respondents are asked to assign the rank for the challenges. After that by using weighted average technique the score was assigned to each challenge. Finally the challenge which scores the more points ,got the first rank .Then the problem which scores next to the high score, got the second rank. Like this the challenges are assigned by the rank.The points



scored by each and every problem faced by the students are shown in Table 3. The rank was assigned according to its total scores and the result is given in Table 4.

**Table 4**

**Challenges faced by Teachers in utilizing new age technologies**

<b>S NO</b>	<b>FACTOR</b>	<b>RANK</b>	<b>SCORE</b>
1	Balancing technology with traditional teaching methods.	3	339
2	Teaching students how to evaluate online sources.	2	352
3	Modeling ethical technology use.	4	319
4	Safeguarding student data privacy online.	5	313
5	Managing expectations for online availability.	1	439
6	Keeping up with tech advancements for teaching.	10	162
7	Addressing digital disparities in access.	6	252
8	Using social media for educational purposes.	7	246
9	Helping students navigate information overload.	8	191
10	Seeking support for integrating technology effectively.	9	187

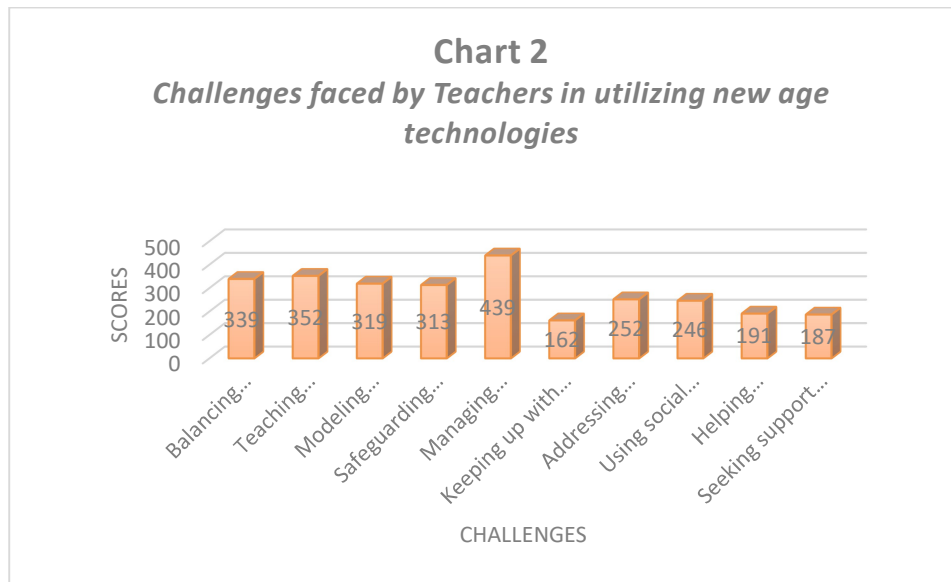


Table 4 and chart 2 are analysed with the help of ranking analysis.

Table 4 and chart 2 are analysed with the help of ranking analysis and the ranks are assigned as follows :

- 1)Managing expectations for online availability.
- 2)Teaching students how to evaluate online sources.
- 3)Balancing technology with traditional teaching methods.
- 4)Modeling ethical technology use.
- 5)Safeguarding student data privacy online
- 6)Addressing digital disparities in access.
- 7)Using social media for educational purposes.
- 8)Helping students navigate information overload.
- 9)Seeking support for integrating technology effectively.
- 10)Keeping up with tech advancements for teaching.

From the above analysis it can be concluded that Managing expectations for online availability seems to be the most significant challenge faced by the teachers as it has highest score (439).The second significant challenge is Teaching students how to evaluate online sources with 352 scores .The third significant challenge is Balancing technology with traditional teaching methods with 339 scores as the

balance between both is very important. The fourth significant challenge is Modeling ethical technology use ,as technology should be used ethically for constructive purpose rather than destructive,it scores 319 points. The fifth significant challenge is Safeguarding student data privacy online as due to importance of privacy concerns,it scores 313 points. The sixth significant challenge is Addressing digital disparities in access with 252 scores. The seventh significant challenge is Using social media for educational purposes with 246 scores. The eight significant challenge is Helping students navigate information overload , it scores 191 points. The ninth significant challenge is Seeking support for integrating technology effectively with 187 scores. The tenth significant challenge is Keeping up with tech advancements for teaching because in this dynamic world technology upgradation is very fast ,It scores 162 points.

## **6.2 To evaluate the effectiveness of technology in promoting student well- being**

Evaluating the effectiveness of technology in promoting student well-being involves assessing its impact on various dimensions of wellness. This includes mental health, academic performance, social connections, and overall quality of life. Utilizing both qualitative and quantitative measures, such as surveys, interviews, and academic performance metrics, researchers can gauge how technology interventions positively or negatively affect student well-being.

**Table 5**

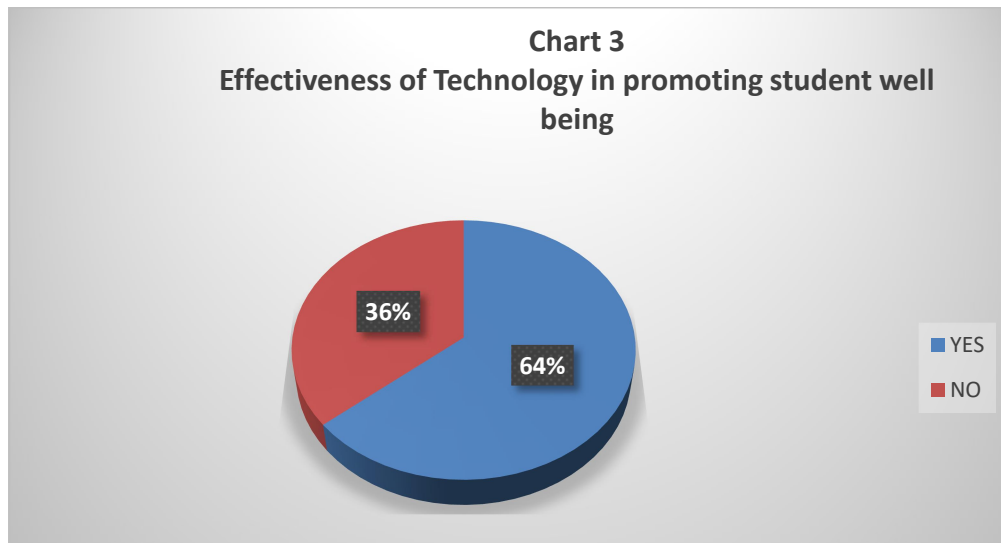
### **EFFECTIVENESS OF TECHNOLOGY IN PROMOTING STUDENT WELL- BEING**

S NO	STATEMENT	Strongly agree		Agree		Neutral		Disagree		Strongly Disagree	
		NO OF RESPONDENTS	PERCENT AGE	NO OF RESPONDENTS	PERCENT AGE	NO OF RESPONDENTS	PERCENT AGE	NO OF RESPONDENTS	PERCENT AGE	NO OF RESPONDENTS	PERCENT AGE
1	Positive Impact of Technology on Student Well-being	16	16%	35	35%	24	24%	15	15%	11	11%
2	Efficient Academic Workload Management through Technology	21	21%	35	35%	22	22%	10	10%	13	13%
3	Access to Well-being Resources Enabled by Technology	19	19%	35	35%	26	26%	11	11%	10	10%
4	Maintaining a Balanced Technology Use for Well-being	18	18%	31	31%	27	27%	14	14%	11	11%
5	Concerns about Technology Addiction	21	21%	31	31%	26	26%	10	10%	13	13%
6	Confidence in Managing Technology Usage for Well-being	19	19%	41	41%	21	21%	10	10%	10	10%
7	Role of Technology in Addressing Mental Health Issues	16	16%	38	38%	26	26%	8	8%	13	13%
8	Improved Access to Educational Resources via Technology	23	23%	35	35%	29	29%	8	8%	6	6%
9	Positive Influence of Technology on Academic Performance	18	18%	41	41%	25	25%	8	8%	9	9%
10	Potential of Technology to Create Inclusive Learning Environments	23	23%	37	37%	28	28%	5	5%	8	8%

**Table 6**

EFFECTIVENESS	NO OF RESPONDENTS
YES	64
NO	36
TOTAL	100

### Effectiveness of Technology in promoting student well being



From the above analysis of Table 6 It seems that 64 out of 100 respondents had a effectiveness of technology in promoting student well -being while 36 had a no effectiveness or effectiveness. This indicates that the majority of respondents have a positive effectiveness, with only a small minority holding a negative view. This suggests that whatever is being measured tends to be viewed positively overall.

### **6.3 To explore the perception and attitude of students and teachers towards the integration of technology in higher education**

Exploring the perception and attitude of students and teachers towards technology integration in higher education requires gathering qualitative and quantitative data through surveys, interviews, and focus groups. Understanding their perspectives on the benefits, challenges, and concerns related to technology adoption is essential. Analysing factors such as digital readiness and preferences for technology-enabled learning methods can provide valuable insights

#### **6.3.1 Perception and attitude of students towards the integration of technology in higher education**

Students' perception and attitude towards technology integration in higher education vary widely, influenced by factors such as familiarity with digital tools, learning preferences, and past experiences.

**Table 7**

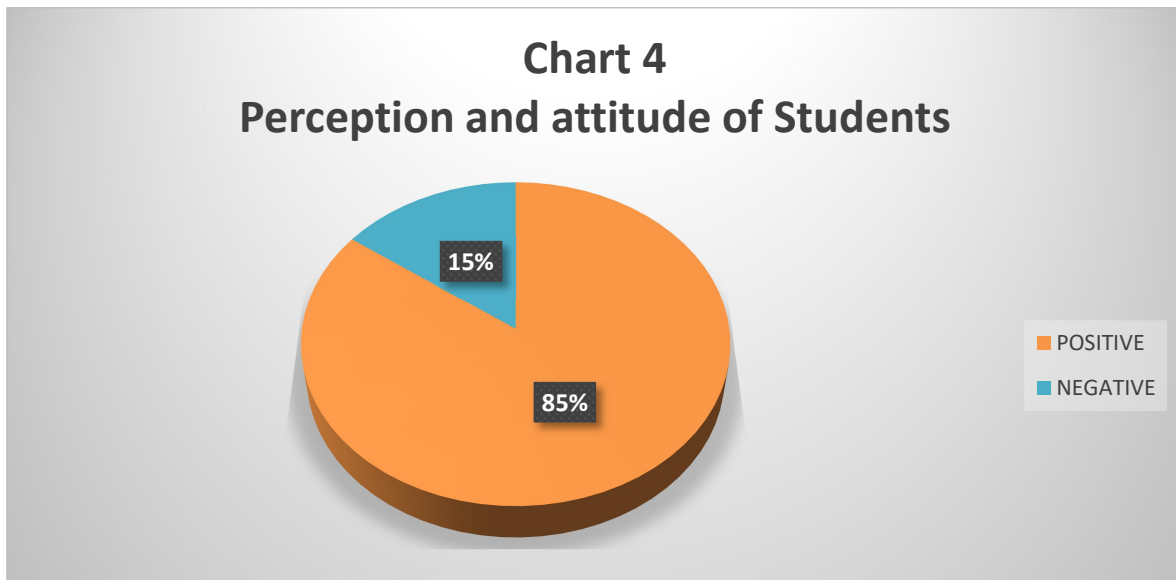
### Perception and attitude of Students towards the integration of technology

S NO	FACTOR/RATINGS	1	2	3	4	5
1	Use technology	15	12	21	18	34
2	Comfort level	8	20	19	29	24
3	Technology tools	8	14	19	34	25
4	Integrating technology	7	16	22	24	31
5	Benefits of technology	10	14	16	27	33
6	Challenges of technology	9	12	24	27	28
7	Collaborate with peers	11	14	19	28	28
8	Instructor involvement	11	8	17	30	34
9	Implementation	8	8	22	23	39
10	Adapting to technology	8	10	19	26	37

**Table 8**

### Perception and attitude of Students towards the integration of technology

PERCEPTION	NO OF RESPONDENT
POSITIVE	85
NEGATIVE	15
TOTAL	100



From the above Table 8 It seems that 85 out of 100 respondents had a positive perception, while 15 had a negative perception. This indicates that the majority of respondents have a positive perception, with only a small minority holding a negative view. This suggests that whatever is being measured tends to be viewed positively overall.

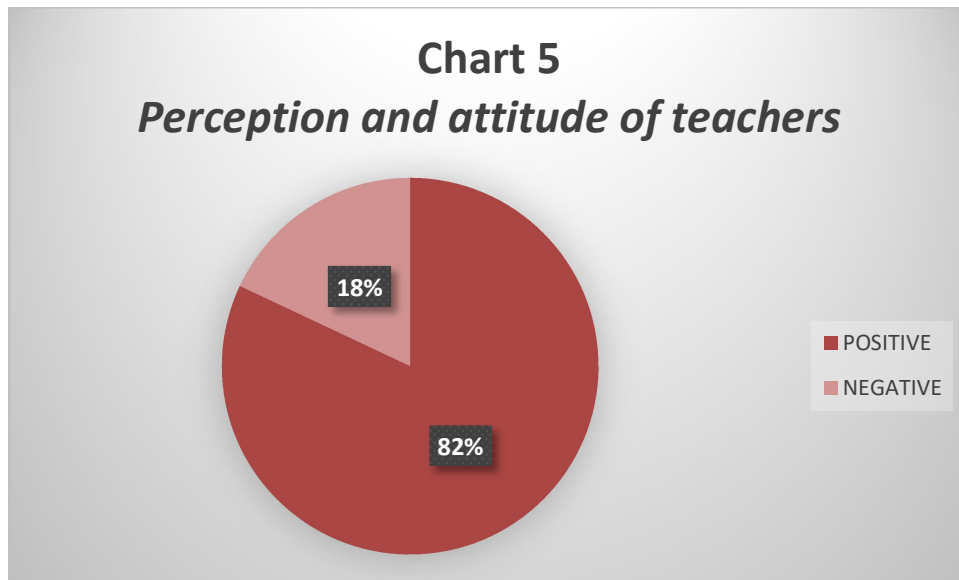
### 6.3.2 Perception and attitude of teachers towards the integration of technology in higher education

Teachers' perception and attitude towards technology integration in higher education shape the pace and success of its implementation. While some embrace technology as a tool to enhance teaching effectiveness and engage students, others may fear regarding its impact on traditional teaching methods.

**Table 9**

**Perception and attitude of teachers towards the integration of technology**

PERCEPTION	NO OF RESPONDENT	PERCENTAGE
POSITIVE	41	82 %
NEGATIVE	09	18 %
<b>TOTAL</b>	<b>50</b>	<b>100 %</b>



From the above Table 9 we conclude with 41 out of 50 respondents reporting a positive perception and only 9 reporting a negative perception, it indicates a strong overall positive outlook. This suggests that the subject being studied is generally well-regarded or positively received by the respondents. The overwhelming majority having a positive perception implies a high level of favourability or satisfaction with the subject matter.

## 7 .CONCLUSION`

The journey to harnessing the potential of new age technologies in higher education is illuminated with optimism and promise. Through the identification of challenges faced by both students and teachers, we uncover opportunities for growth and innovation. By recognizing digital literacy gaps, access barriers, and concerns about adaptability, we pave the way for targeted interventions and support mechanisms to empower learners and educators alike.

Moreover, the evaluation of technology's effectiveness in promoting student well-being reveals a landscape rich with possibilities. From enhancing academic performance to fostering connections and access to resources, technology emerges as a powerful ally in nurturing holistic student development. These findings underscore the transformative impact technology can have on student well-being and highlight the importance of continued exploration and refinement of its integration.

Furthermore, the exploration of perceptions and attitudes towards technology integration unveils a tapestry of perspectives, each contributing to a vibrant mosaic of educational innovation. As students



and teachers embrace the potential of technology to revolutionize learning experiences, a culture of collaboration and creativity takes root, driving forward-thinking approaches to education.

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