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EXPLORATION OF EDUCATION WITHOUT BOUNDARIES BY INTEGRATING DISCIPLINES FOR A HOLISTIC FUTURE

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ABSTRACT

In the fast growing landscape of 21st century, education has to change its way to digitized world. The complex challenges we face from ranging of technological disruptions to climate change, from social inequalities to cultural integrations are not only demanding learners from getting knowledge in specific fields but also are creating a capable of thinking holistically and collaboratively different. This education towards a multidisciplinary and holistic approach where knowledge is interconnected and experiential learning is emphasised are nurtured alongside academic growth.

This paper explores how education can become more holistic and multidisciplinary and discusses the main strategies that make this approach effective., which includes key strategies like interdisciplinary learning, where students are encouraged to connect ideas from different subject which helps them understand problems from multiple angles. Collaborative teachings from different fields work together to design lessons and projects, showing students how knowledge is connected. Experiential learning where students learn through hands-on projects, internships, research, and community activities, which make learning meaningful and practical.

Key words: Holistic education, multidisciplinary approach, experiential learning, skills & innovations.

INTRODUCTION

“Education is the most powerful weapon which you can use to change the world” – Nelson Mandela. Holistic education also focuses on the overall development of students including their physical fitness, cultural arts, social and ethical growth. Activities such as brainstorming sessions, mindful works, ethical discussions and creative projects helps students become well rounded individuals who are ready to face real world challenges. Technology can support this learning by providing access to information, facilitating collaboration and offering personalised learning experiences.

Education without boundaries is referred to the procedure where breaking down of walls between the streams that can see connections between ideas & apply knowledge in real life situation. For example by combining commerce and technology, arts and science and social sciences along with moral ethics which helps the students to develop creative thinking and problem solving skills. This kind of education not just focuses on facts and exams but it also nurture students, emotional intelligence, ethics, creativity and social awareness.

Problems like climate change, public health crises, social inequalities, and technological challenges cannot be solved by focusing on one subject alone. The idea of education without boundaries encourages learning that goes beyond strict subject divisions. It promotes connections between different areas knowledge helping the students to understand a biger picture as a perspective towards their education system. By integrating such dicsciplines,

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learners will gain the ability to think creatively, solve problems and make informed decisions in complex situation.

Globally education system is moving towards more interdisciplinary and holistic approach. Universities are offering the courses that cross traditional subject boundaries, encourage collaborative research and provide hands on learning experiences. In order to maintain the latest standards in education the government of India has implemented various Masive Open Online Course (MOOC) where different streams of education can be accessed by anyone across the globe, where certifications are also available for the learners which acts as a proof for those who are enrolled in these MOOC courses.

At the same time these approaches are again coming with challenges. Many institutions have rigid structures, fixed circular & traditional ways of assessing students especially in Government owned institutions & few private institutions. Teachers may need new training to guide interdisciplinary learning effectively. Overcoming these challenges require support from educational institution, government, educators, policy makers, industrialists etc., conferences like this provide an important platform for sharing ideas, learning from global experiences and finding ways to make boundary less education a reality. By coming together we can try to prepare our students to explore new ways and to prepare them for an uncertain and complex future.

I finally conclude saying that the theme; "**EXPLORATION OF EDUCATION WITHOUT BOUNDARIES BY INTEGRATING DISCIPLINES FOR A HOLISTIC FUTURE** represents not just academic inquiry but a visionary mission. It seeks to redefine the purpose of education in the 21st century by emphasising the interconnectedness of knowledge, the cultivation of human potential and the preparation of learners to thrive in an uncertain and complex world. By changing the disciplinary boundaries and embracing holistic education, it can become a powerful encouragement for innovation & sustainable development. This conference offers an invaluable opportunity to engage with advanced ideas, sharing insights from diverse contexts and collectively chart a path towards a quality & holistic education

REVIEW OF LITERATURES

1) **Sarkar, S., & Dave, A. (2024).** Teacher's Opinion on Holistic and Multidisciplinary Education in the Context of NEP-2020. ShodhKosh: Journal of Visual and Performing Arts, 5(5), 1229-1236.

2) **Bejerano, M. J., Mukatayeva, A., Ishanova, G., Zhanatova, A., Seitaliyeva, B., & Duisek, A. (2024, August).** Integration of Holistic and Sustainable Pedagogy in Chemistry Classrooms: A Survey of Kazakhstan High School Chemistry Teachers. Paper presented at ECER 2024: Environmental and Sustainability Education Research Network.

3) **Shukla, B., Soni, K., Sujatha, R., & Hasteer, N. (2023).** Roadmap to Inclusive Curriculum: A Step towards Multidisciplinary Engineering Education for Holistic Development. Journal of Engineering Education Transformations, 36(3).

4) **Bashir, L., & Wani, G. (2022).** Multidisciplinary and Holistic Education: Achieving Academic Excellence and Bolstering All-Round Development in the 21st Century with NEP-2020. International Journal of Indian Psychology, 12(1)

5) **Tien, D. T.-K., & Hajibeigy, M. T. (2015).** The Multidisciplinary Engineering Project's Contribution Towards Holistic Education: A Case Study. In S. Tang & L. Logonnathan (Eds.), Taylor's 7th Teaching and Learning Conference Proceedings (pp. 269-278). Springer, Singapore.

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RESEARCH OBJECTIVES

- To explore innovative approaches which integrates multiple disciplines
- To examine how holistic and interdisciplinary education can cultivate capabilities
- To identify strategies which integrates education that can drive innovation & sustainability development

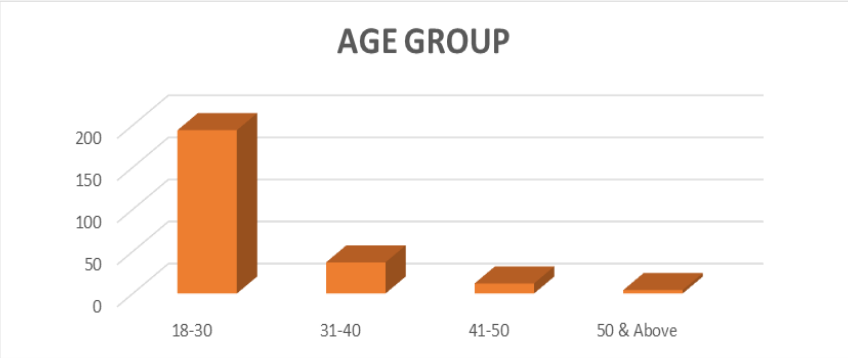
RESEARCH METHODOLOGY

- **Research Design:** this study adopts a mixed method of research design primarily which is based on survey responses collected from participants to gain an informative first-hand response, which is also supported by secondary data from relevant academic literatures, reports which supports the validated findings.
- **Sampling Design:** this study involves a purposive sampling design which collects primary data directly from individuals involved in education sector.
- **Sampling Size:** a total of 70 respondents across Bengaluru south zone involving teachers, students, academic administrators, and researchers are involved in this survey
- **Data analysis:**
  - Descriptive statistics (mean, percentage, trend analysis)
  - Correlation analysis (identifying relationships between key variables)

FINDINGS FROM THE STUDY

AGE GROUP

Sl No.	AGE GROUP	Frequency
1	18-30	194
2	31-40	37
3	41-50	12
4	50 & above	4



INTERPRETATION

The conference was youth-driven, with the 18–30 age group leading the way, showing that young minds are shaping the future of global learning and innovation.

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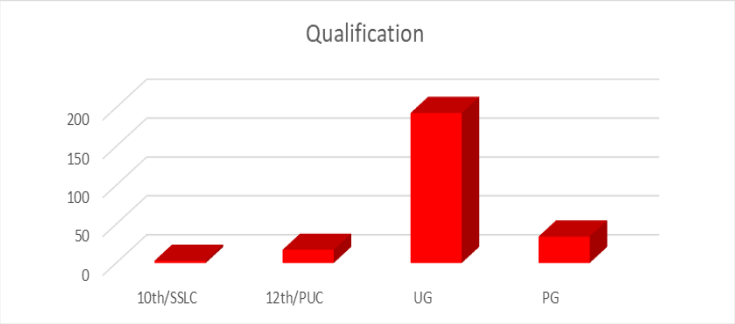
QUALIFICATION

Sl No.	QUALIFICATION	Frequency
1	10th/SSLC	194
2	12th/PUC	37
3	UG	12
4	PG	4

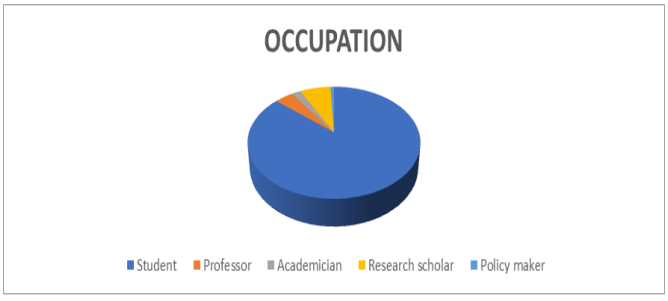


INTERPRETATION

The participation data shows that the Undergraduate (UG) group made up the largest portion of attendees with 193 participants, highlighting the strong enthusiasm of college students toward learning and research. The Postgraduate (PG) group followed with 34 participants, showing continued academic interest among advanced learners. Meanwhile, only 17 participants were from the 12th/PUC level and 3 from the 10th/SSLC level, indicating limited involvement from school students. Overall, the conference was largely youth-driven, led by energetic and curious UG students who brought fresh perspectives, creativity, and passion for innovation to the event.

OCCUPATION

Sl No.	OCCUPATION	Frequency
1	Student	213
2	Professor	10
3	Academician	05
4	Research scholar	17
5	Policy maker	2



INTERPRETATION

The conference was student-driven, with 213 students actively participating, reflecting strong youth engagement. The presence of professors, academicians, and research scholars added valuable expertise, creating a vibrant mix of learning and experience throughout the event.

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PARTICIPATION IN PROJECT WHICH COMBINES KNOWLEDGE OR METHODS FROM DIFFERENT DISCIPLINES

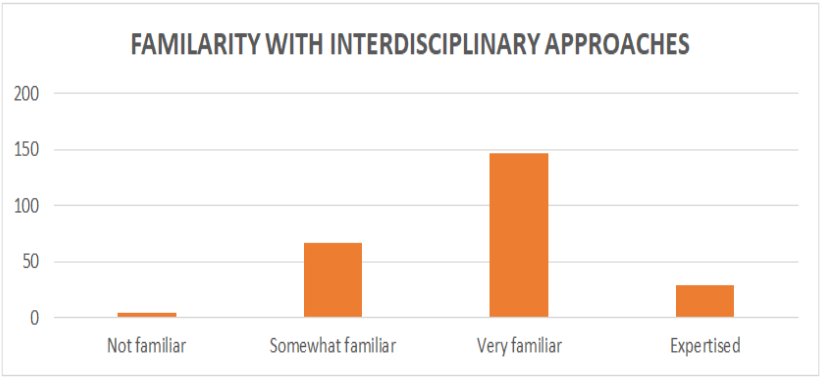
Sl No.	PROJECT COMBINING KNOWLEDGE	Frequency
1	Yes	237
2	No	10
3	Maybe	0

INTERPRETATION

The data shows that 237 participants had taken part in projects that combined knowledge or methods from different disciplines, while only 10 participants had not, and none were unsure. This clearly indicates a strong culture of interdisciplinary learning and collaboration, where most participants value integrating ideas from various fields to solve problems and create innovation.

FAMILIAR WITH INTERDISCIPLINARY APPROACHES IN YOUR FIELD OF WORK OR STUDY?

Sl No.	FAMILARITY WITH INTERDISCIPLINARY APPROACHES	Frequency
1	Not familiar	4
2	Somewhat familiar	64
3	Very familiar	147
4	Expertised	29



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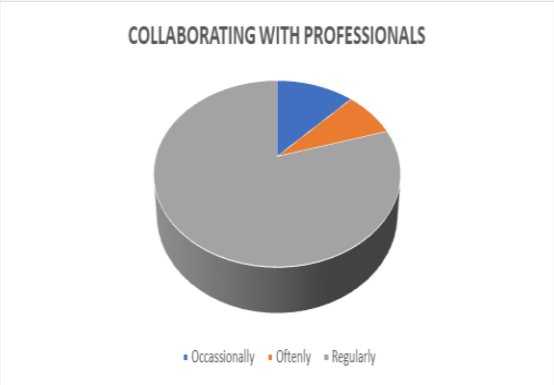
INTERPRETATION

The conference attracted a highly knowledgeable audience, with most participants being very familiar or expert in interdisciplinary approaches. This shows a strong enthusiasm for collaboration across fields, highlighting a community ready to innovate by combining diverse perspectives and expertise.

COLLABORATE WITH PROFESSIONALS OR RESEARCHERS FROM OTHER DISCIPLINES

Sl No.	COLLABORATING WITH PROFESSIONALS	Frequency
1	Not familiar	4
2	Somewhat familiar	64
3	Very familiar	147



INTERPRETATION

The data shows that most participants (197) regularly collaborate with professionals, while 30 collaborate occasionally and 20 oftenly. This highlights a strong culture of active professional collaboration, emphasizing that participants are consistently engaging with peers and experts to share knowledge, gain insights, and drive innovation.

KEY BENEFITS OF ADOPTING A HOLISTIC AND INTERDISCIPLINARY APPROACH IN EDUCATION

Sl No.	BENEFITS OF ADOPTING A HOLISTIC AND INTERDISCIPLINARY APPROACH IN EDUCATION	Frequency
1	Encourages well-rounded personal development	27
2	Enhances real-world problem-solving skills	147
3	Builds adaptability across different fields	47
4	Increases motivation and engagement	17
5	Promotes deeper understanding of complex issues	9

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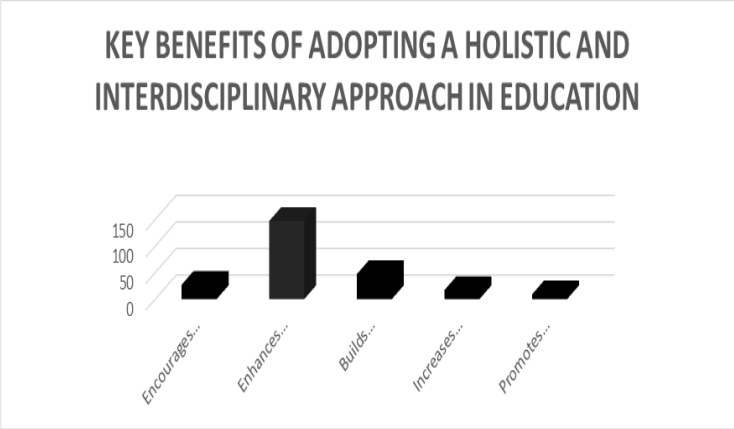
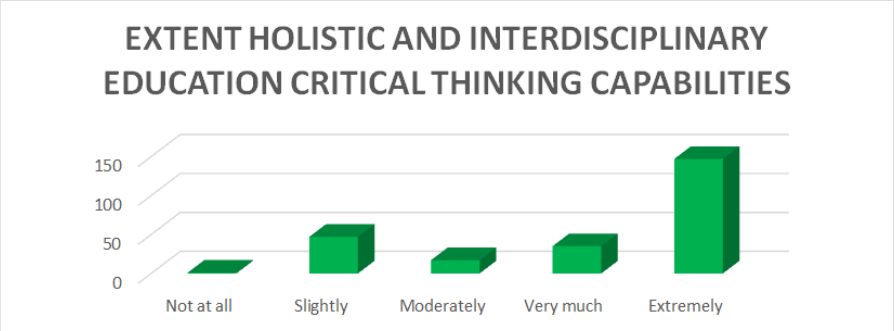


INTERPRETATION

Most participants (147) highlighted that it enhances real-world problem-solving skills, while many also noted it builds adaptability, encourages well-rounded development, and boosts motivation. Overall, it prepares learners to tackle complex challenges with versatility and insight.

WHAT EXTENT HOLISTIC AND INTERDISCIPLINARY EDUCATION HELPS IN DEVELOPING THE CRITICAL THINKING CAPABILITIES

Sl No.	EXTENT HOLISTIC AND INTERDISCIPLINARY EDUCATION IN CRITICAL THINKING CAPABILITIES	Frequency
1	Not at all	01
2	Slightly	47
3	Moderately	17
4	Very much	35
5	Extremely	147



INTERPRETATION

The data shows that most participants (147) felt extremely that holistic and interdisciplinary education enhances critical thinking, while 35 felt very much, 17 moderately, and 47 slightly. Only 1 participant felt not at all. This clearly indicates that such an educational approach is seen as highly effective in developing sharp, analytical, and versatile thinkers.

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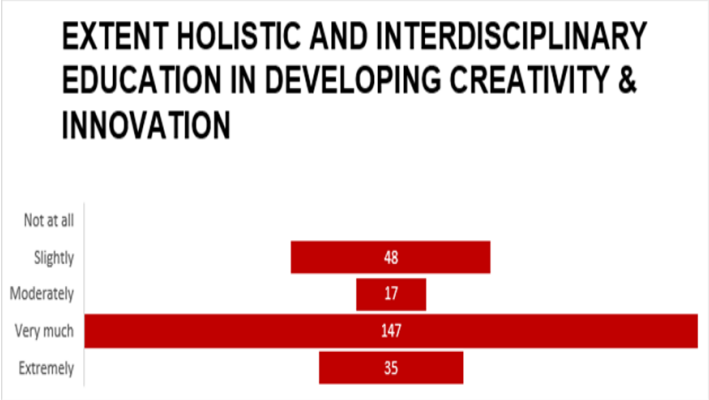
WHAT EXTENT HOLISTIC AND INTERDISCIPLINARY EDUCATION HELPS IN DEVELOPING CREATIVITY & INNOVATION

Sl No.	EXTENT HOLISTIC AND INTERDISCIPLINARY EDUCATION IN DEVELOPING CREATIVITY & INNOVATION	Frequency
1	Not at all	0
2	Slightly	48
3	Moderately	17
4	Very much	147
5	Extremely	35



INTERPRETATION

The data shows that most participants (147) felt that holistic and interdisciplinary education very much enhances creativiy and innovation, with 35 feeling extremely and 17 moderately. Only 48 participants felt slightly, and none reported “not at all.” This highlights that such an approach is highly effective in fostering creative thinking and innovative skills.

WHAT EXTENT HOLISTIC AND INTERDISCIPLINARY EDUCATION HELPS IN DEVELOPING COLLABORATION & TEAMWORKING

Sl No.	EXTENT HOLISTIC AND INTERDISCIPLINARY EDUCATION IN DEVELOPING COLLABORATION & TEAMWORKING	Frequency
1	Not at all	0
2	Slightly	47
3	Moderately	47
4	Very much	127
5	Extremely	26

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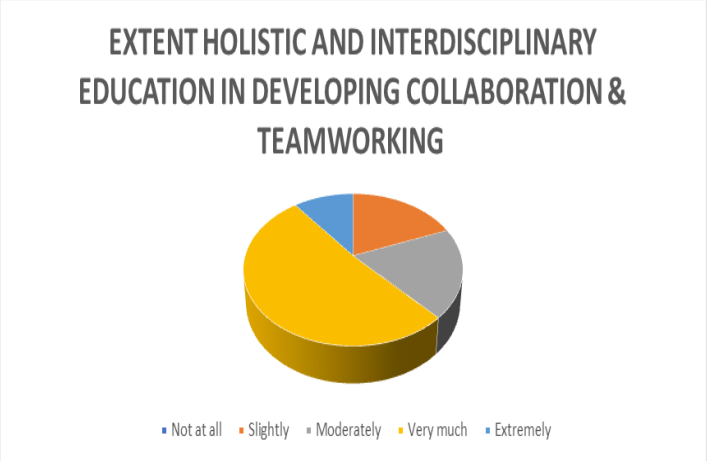
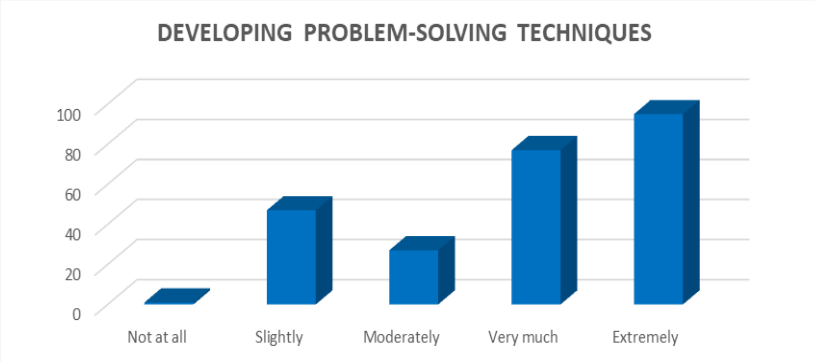


INTERPRETATION

The data shows that most participants (127) felt that holistic and interdisciplinary education very much improves collaboration and teamwork, with 26 feeling extremely and 47 moderately. Only 47 felt slightly, and none reported "not at all." This indicates that such an approach is highly effective in fostering teamwork, cooperation, and collaborative skills.

WHAT EXTENT HOLISTIC AND INTERDISCIPLINARY EDUCATION HELPS IN DEVELOPING PROBLEM-SOLVING TECHNIQUES

Sl No.	EXTENT HOLISTIC AND INTERDISCIPLINARY EDUCATION IN DEVELOPING PROBLEM-SOLVING TECHNIQUES	Frequency
1	Not at all	01
2	Slightly	47
3	Moderately	27
4	Very much	77
5	Extremely	95



INTERPRETATION

Most participants (95) felt that holistic and interdisciplinary education extremely enhances problem-solving skills, while 77 felt very much, 27 moderately, and 47 slightly. Only 1 participant reported "not at all." This shows that such an approach is highly effective in developing strong problem-solving abilities.

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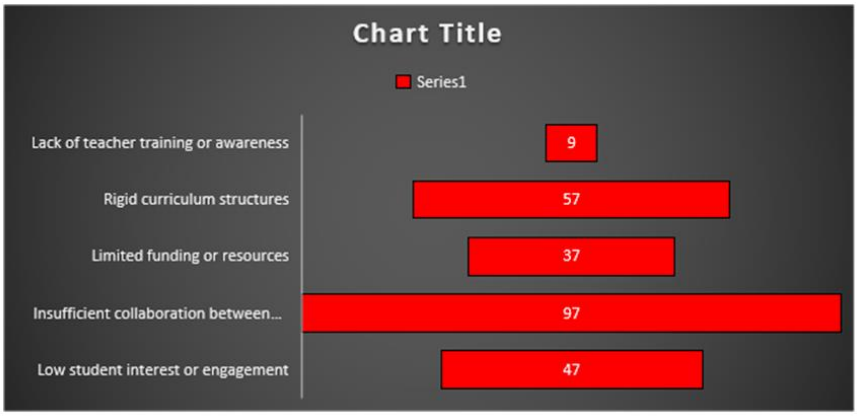
BIGGEST BARRIERS TO INTEGRATING INNOVATION AND SUSTAINABILITY INTO EDUCATION

Sl No.	BARRIERS FOR INTEGRATING INNOVATION AND SUSTAINABILITY INTO EDUCATION	Frequency
1	Lack of teacher training or awareness	09
2	Rigid curriculum structures	57
3	Limited funding or resources	37
4	Insufficient collaboration between disciplines	97
5	Low student interest or engagement	47



INTERPRETATION

The biggest challenge is insufficient collaboration between disciplines (97), followed by rigid curricula, low student engagement, limited resources, and lack of teacher training. Tackling these barriers is key to fostering innovation and sustainability in education**.**

CONCLUSIONS

The analysis of participant responses highlights the growing importance and positive impact of holistic and interdisciplinary education in fostering essential skills and professional engagement. A significant majority of participants (237) have already taken part in projects that integrate knowledge and methods from multiple disciplines, reflecting a strong culture of interdisciplinary learning and collaboration. Most attendees were very familiar or experts in interdisciplinary approaches, demonstrating an engaged and knowledgeable audience ready to innovate by combining diverse perspectives and expertise.

Professional collaboration also emerged as a key strength, with 197 participants regularly collaborating with professionals, while others engage occasionally or often. This consistent engagement underscores the community's commitment to knowledge sharing, peer learning, and driving innovation. Participants also identified major benefits of holistic and interdisciplinary approaches. The top advantage, highlighted by 147 participants, is the enhancement of real-world problem-solving skills, alongside adaptability, well-rounded personal development, motivation, and deeper understanding of complex issues. These benefits prepare learners to navigate challenges with versatility and insight.

Critical thinking, creativity, and innovation were strongly supported by participants, with 147 reporting extreme improvement in critical thinking and the majority recognizing substantial gains in creativity and innovation. Similarly, holistic approaches were seen to significantly

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enhance collaboration, teamwork, and problem-solving abilities, reflecting their effectiveness in building essential 21st-century skills.

Despite these positive outcomes, participants identified barriers to integrating innovation and sustainability into education. The largest challenge (97 participants) is insufficient collaboration between disciplines, followed by rigid curricula, low student engagement, limited resources, and lack of teacher training. Addressing these challenges is critical for further strengthening the impact of interdisciplinary and holistic educational practices.

In conclusion, the data demonstrates that holistic and interdisciplinary education effectively nurtures critical thinking, creativity, problem-solving, collaboration, and professional engagement. It equips learners with the skills, adaptability, and insight required to address complex real-world challenges. By fostering a culture of interdisciplinary collaboration and addressing existing barriers, educational institutions can create a more innovative, engaging, and future-ready learning environment.

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ARTICLE REFERENCES

1. St Aloysius (Deemed to be University) in Mangaluru is hosting the 25th Triennial Conference 2025 of the Xavier Board of Higher Education in India. The conference focuses on fostering critical thinking, innovation, and global citizenship within Catholic institutions, emphasizing the integration of faith and innovation in education
2. The Council for Indian School Certificate Examinations (CISCE) will implement a revamped curriculum for kindergarten to class 8 starting from the 2027-28 academic year. The updated curriculum will be experiential, joyful, and activity-based, aligning with the National Education Policy and incorporating global skill sets and competencies

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