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A Study on - Students' Perspective about an Impact of Co-Academic Activities on Holistic Development of Undergraduate Students

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Abstract: *The study examines undergraduate students' perspectives on how co-curricular, extracurricular, and extension activities influence academic performance and holistic development in Panvel City. It is based on the holistic education approach promoted by the National Education Policy (2020), which emphasizes experiential learning and multidimensional growth beyond classroom teaching. A quantitative research design was used, with primary data collected from 384 students in Arts, Science, and Commerce colleges affiliated with University of Mumbai.*

Findings show high awareness of institutional activities but moderate participation levels. Statistical analysis revealed a significant positive relationship between participation frequency and academic performance. Participation frequency and activity diversity also predicted personal and professional development. While institutional support was rated moderately strong, students reported challenges such as time management and balancing academics. The study concludes that structured engagement in such activities enhances academic achievement, leadership, communication skills, self-confidence, and career readiness, offering practical insights for institutions implementing holistic education models.

Keywords: Holistic development, undergraduate students, co-curricular, extracurricular, extension activities, skill development, cognitive development, higher education, institutional support.

I. INTRODUCTION

India has a long-standing tradition of higher learning, dating back to ancient institutions like Nalanda and Takshashila. Today, with a young population and a median age of 28.7 years, India has developed one of the world's largest higher education systems. The structure includes 10+2 years of schooling followed by undergraduate, postgraduate, doctoral, and post-doctoral studies. Higher education in India is relatively cost-effective compared to many Western countries and includes prestigious institutions such as the Indian Institutes of Technology, Indian Institutes of Management, All India Institute of Medical Sciences, and Birla Institute of Technology and Science.

The system is regulated by bodies like the University Grants Commission and All India Council for Technical Education. Universities include central, state, private, deemed, and Institutes of National Importance. Alongside academic programs, institutions promote co-curricular, extracurricular, and extension activities such as debates, sports, cultural events, NCC, and NSS to foster holistic development.Panvel, near Mumbai, is an emerging educational hub with several colleges affiliated to University of Mumbai, offering diverse academic and developmental opportunities.

Statement of the Research Problem

Higher education today emphasizes holistic development alongside academic achievement. In line with the vision of the National Education Policy (2020), colleges are encouraged to integrate co-curricular, extracurricular, and extension

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activities into mainstream education to promote experiential learning and multidimensional growth. These activities are intended to enhance not only academic performance but also leadership, communication skills, social responsibility, and career readiness. In Panvel City, undergraduate colleges affiliated with the University of Mumbai organize various activities such as debates, research competitions, sports events, cultural programs, and outreach initiatives like NSS and NCC. Although institutions actively conduct these programs, the actual impact of such participation on students' overall performance remains unclear, particularly from the students' perspective. While these activities are widely believed to contribute positively to academic and personal development, participation levels and experiences vary. Some students benefit significantly, whereas others face challenges such as academic pressure and time constraints. Therefore, the research problem centers on understanding students' perspectives on how co-curricular, extracurricular, and extension activities influence their academic performance and holistic development in Panvel City.

Significance of the Study

Universities and their affiliated colleges have ambitiously implemented co-curricular, extracurricular, and extension activities as integral components of higher education. These initiatives are designed not only to complement academic learning but also to foster holistic development among students. In alignment with the vision of the National Education Policy (2020), institutions are increasingly emphasizing experiential learning, skill enhancement, and community engagement. However, the true value of these activities can only be determined through systematic evaluation of their effectiveness and their actual impact on students' academic performance and overall growth.

Understanding students' perspectives is crucial because they are the primary stakeholders and beneficiaries of these initiatives. Their feedback can provide insights into participation levels, perceived benefits, challenges faced, and areas requiring improvement. Without such analysis, institutional efforts may remain procedural rather than purposeful.

Therefore, a study on this topic is paramount, as it will help institutions assess whether these activities genuinely contribute to leadership development, communication skills, career readiness, and social responsibility. The findings can guide policy refinement, resource allocation, and strategic planning to enhance the quality and relevance of student engagement programs.

Limitations of the study

Every study has its own limitations and it is the responsibility of the researcher to own up the limitations. Like every authentic research this study also appreciates and acknowledges its limitations.

Some of the limitations are:

1. The study is geographically limited to the city of Panvel
2. The study takes into account only the students enrolled for undergraduate programmes
3. There are only 6 Colleges considered under the mentioned Geographical Area.

Objectives of the Study

a. To analyze the impact of Co-curricular, extra-curricular, and extension activities on the students' Development.
b. To examine the perspective of students on the co-curricular, extra-curricular, and extension activities.
c. To study the profile of Panvel city.
d. To draw conclusions & propose recommendations for further improvements in the selected activities.

Statements of Hypotheses of the Study

a. H_0 - There is no impact of Co-curricular, Extracurricular and Extension activities on the academic performance of the students.
b. H_1 - There is a significant impact of Co-curricular, Extracurricular and Extension activities on the academic performance of the students.

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c. H_0 - There is an indirect relationship between the types and frequency of Co-curricular, Extracurricular and Extension activities and the overall development of the students.
d. H_1 _ There is a direct relationship between the types and frequency of Co-curricular, Extracurricular and Extension activities and the overall development of the students.

II. REVIEW OF LITERATURE

Papers considered for reviewing:

H. David Hunt (2007)[1] – in their study has reported a few contradictions on the belief and the real outcome on the effects of participation in extracurricular activities. The study reports that there is a casual approach towards participation in extra-curricular activities. The popular activities that the researcher lists are athletics, cheerleading, community work and other activities organized by the church. The study reveals that it is not the participation in the extracurricular activities that improves grades instead better grades encourage students to participate in extracurricular activities. The research also points to the fact that better academic grades encourage students to participate in extracurricular activities related to their academic choices, for example, the subject matter clubs.

Wilson, Nikki L. (2009)[2] – presents in their paper that extracurricular activities among students have both positive and a few negative side to the idea. Positive side being realizing self-worth, better academic performance, less absenteeism, and a greater connect with the institution. Some of the negative aspects of extracurricular activities being over-involved in extracurricular activities, getting over-scheduled, sports-related injury (in those cases where students have opted for athletics and sports as extra-curricular activity), and in certain other cases, the extracurricular activities opted by students, are at times, too expensive.

Claudette Christison (2013)[3] – in their research paper have mentioned that participating in extracurricular activities has led to students' personal and academic success and also social development. It is also reported in the paper that participation in extracurricular activities mould students' characteristics that are essential for personal success, like accepting constructive criticism, time management and leadership skills.

Jolly S. Balila (2016)[4] – in their paper reveal that those students involved in Community Extension Services (CES) felt that such involvements promoted a sense of personal development which also includes moral development, helped them to understand and appreciate social and cultural differences, helped them improve their inter-personal relationship.

Helen Wong and Simon Leung (2018)[5] – in their study conducted among sub-degree students and degree students in Hong Kong have found that the sub-degree students believe that the co-curricular activities (CCA – as termed by the authors) help in better job opportunities and very importantly polish their interview skills, as well as presentation skills. They also found out that students, specifically, want to part take in those CCA activities that would help them in their advanced academic and career choices. The authors also reiterate that the same opinion on CCA is voiced by degree students as well. The authors sum it up as CCA is essential for enhancing skills as well as are also pursued as value-addition. It is also noted in the study that both sub-degree and degree students are concerned about dedicating time for studies as their priority.

1. H. David Hunt – 2007, The effect of extracurricular activities in the educational process: Influence on Academic outcomes?
2. Wilson, Nikki L. – 2009, Impact of extra-curricular activities on students
3. Claudette Christison – 2013, Benefits of Participating in Extracurricular Activities
4. Jolly S. Balila – 2016, Effects of involvement in community extension programs on student outcomes
5. Helen Wong and Simon Leung – 2018, Can co-curricular activities enhance the learning effectiveness of students? An application to the sub-degree students in Hong Kong

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III. RESEARCH METHODOLOGY

Every effort of finding new knowledge and formulating new theories need specific guidelines. These guidelines are referred to as research methodology. Research methodology acts as a blue-print for the way in which the research is to be carried out.

Research methodology guides a researcher in the following steps:

- Data collection- kind and type of data to be collected
- Sample design
- Methods of collecting data
- Data analysis
- Tools to be utilized for data analysis
- Research report

Types and approaches to research: Some types of research are given below:

1. Fundamental research
2. Experimental research
3. Historical research
4. Scientific research

Approaches to research:

1. Qualitative research
2. Quantitative research
3. Mixed method

Steps in a research

1. Identifying the area of study
2. Identifying the research problem specific to the area of study
3. Review of literature
4. Formulating the Aim, Objectives and the hypotheses of the study
5. Creating a research design
6. Decision on sample size and sampling method
7. Collection of data and analysis of the data
8. Recording the result and presenting it in the form of a report

Sample Size: The sample for the present study consisted of 384 undergraduate students enrolled in Arts, Science, and Commerce colleges affiliated with the University of Mumbai and located in Panvel City. The sample size was determined to ensure adequate representation of students from different academic streams and to provide reliable results for quantitative analysis.

A probability-based sampling approach was adopted to select respondents from various colleges in the study area. The number 384 was considered appropriate as it is widely accepted in social science research for studies involving large populations at a 95% confidence level with a 5% margin of error, ensuring statistical validity and generalizability of findings.

Data Collection Methods: Primary data collection through Interviews & Questionnaire and secondary data collection through Books, journals, NAAC Reports, etc.

This study is based on primary data collected through a questionnaire. Structure of the questionnaire used for the study is as follows:

1st Section: Personal information from the students like their name, contact information and the academic stream he/she has opted for, the academic year that the student is currently in, age, location of the college are collected.

2nd Section: Questions relevant to understand the profile of the city with reference to the support and feasibility in accessing the infrastructure for various co-curricular, extra-curricular and extension activities feature in this section of the questionnaire

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3rd Section: Question related to the frequency and the most preferred type of activities in which a student participates are listed in this section

4th Section: Questions pertaining to assessing a student's perception on the activities are organized in this section

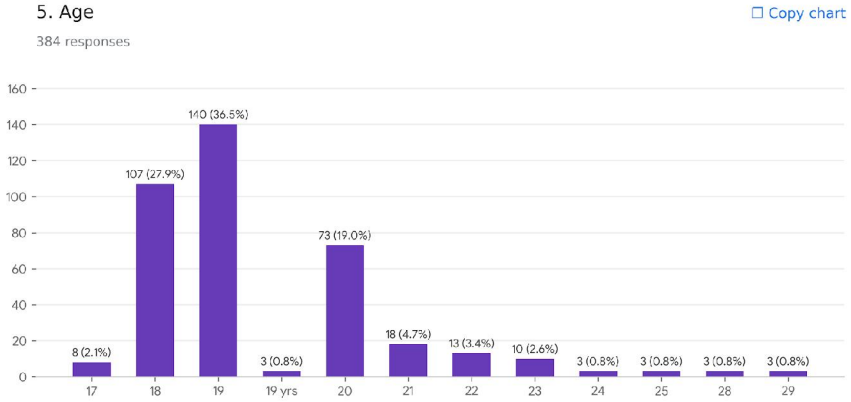
IV. DATA ANALYSIS AND INTERPRETATION

Introduction

This chapter presents the analysis of the primary data collected from students in Panvel city. The analysis is aligned with the research objectives and hypotheses, using both descriptive and inferential statistics.

Following Krejcie and Morgan's (1970) sample size table, 384 responses were collected, which ensures 95% confidence with a ±5% margin of error, thereby making the findings statistically reliable and generalizable.

Frequency count of Age:



Age	Count	Percentage
19–20	211	54.95%
17–18	120	31.25%
21–22	35	9.11%
23+	18	4.69%
Total	**384**	**100%**

Interpretation:

The age distribution shows that the majority of respondents are between **19–20 years (54.95%)**, forming the largest group. This is followed by students aged **17–18 years (31.25%)**, indicating strong representation from early undergraduate levels. A smaller proportion falls in the **21–22 years (9.11%)** category, while only **4.69%** are aged **23 years and above**.

Overall, the data indicate that most respondents (86.20%) are between **17 and 20 years**, reflecting a predominantly young undergraduate population.

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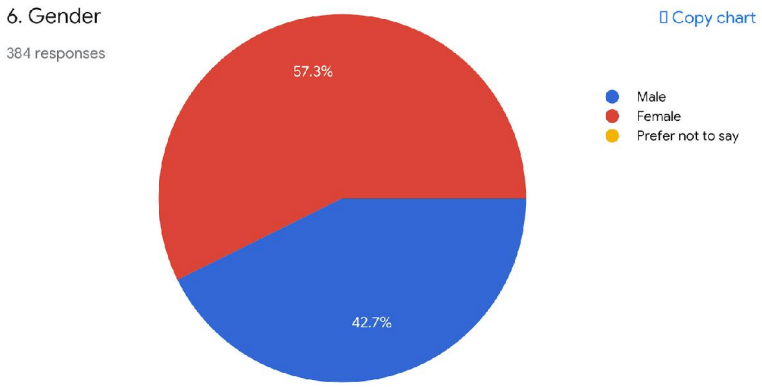
Frequency Count of Gender:



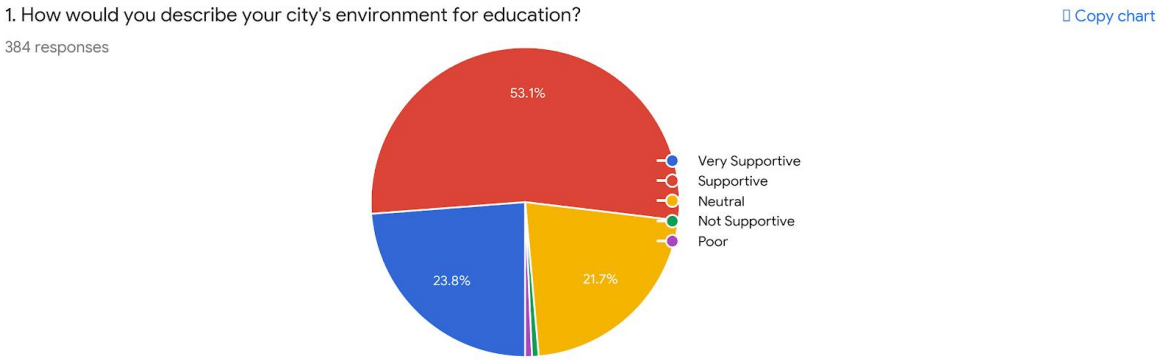
Gender	Count	Percentage
Female	224	58.33%
Male	160	41.67%
Total	**384**	**100%**

Interpretation:

The gender distribution of respondents indicates that **female students (58.33%)** form the majority, with **224 participants**, while **male students (41.67%)** account for **160 participants**.

This shows a higher representation of female students in the sample. The relatively balanced distribution, though slightly female-dominated, ensures that perspectives from both genders are adequately reflected in the study.

Educational Environment of Panvel (Objective a)



Variable	N	Mean	Std. Deviation
Q1.1 – City's environment for education	384	3.76	0.43
Q1.2 – Facilities for co-curricular & extracurricular activities	384	4.27	0.53
Q1.3 – Accessibility of activity centers	384	3.94	1

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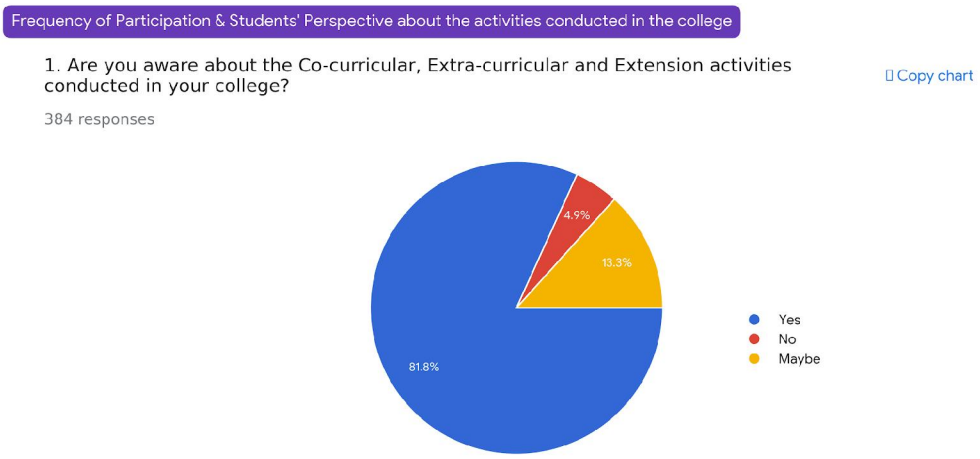
Interpretation:

The descriptive statistics highlight students' perceptions of the educational environment in Panvel. Respondents rated the city's overall environment for education (M = 3.76, SD = 0.43) moderately high, indicating that students generally consider Panvel to provide a supportive atmosphere for learning. The highest-rated aspect was facilities for co-curricular and extracurricular activities (M = 4.27, SD = 0.53), suggesting that institutions in the city are well-equipped in terms of resources and opportunities for beyond-classroom engagement. In contrast, the accessibility of activity centres (M = 3.94, SD = 1.00), while rated positively, showed the largest variability among responses. This higher standard deviation indicates that while many students find activity centres accessible, others face challenges, perhaps due to differences in location, scheduling, or resource allocation.

Overall, the results suggest that Panvel provides a strong infrastructure for educational and co-curricular engagement, though accessibility remains an area requiring improvement.

Awareness and Participation of Students (Objective b)



Frequencies and Percentages for Awareness and Participation:

Variable	Category	n	%
Awareness (Q2.1)	Yes	317	82.6
	Maybe	49	12.8
	No	18	4.7
Monthly Count (Q2.2)	1–5	211	55
	5–10	103	26.8
	More than 10	70	18.2
Participation Frequency (Q2.3)	Always	76	20
	Often	86	22.6
	Sometimes	150	39.4

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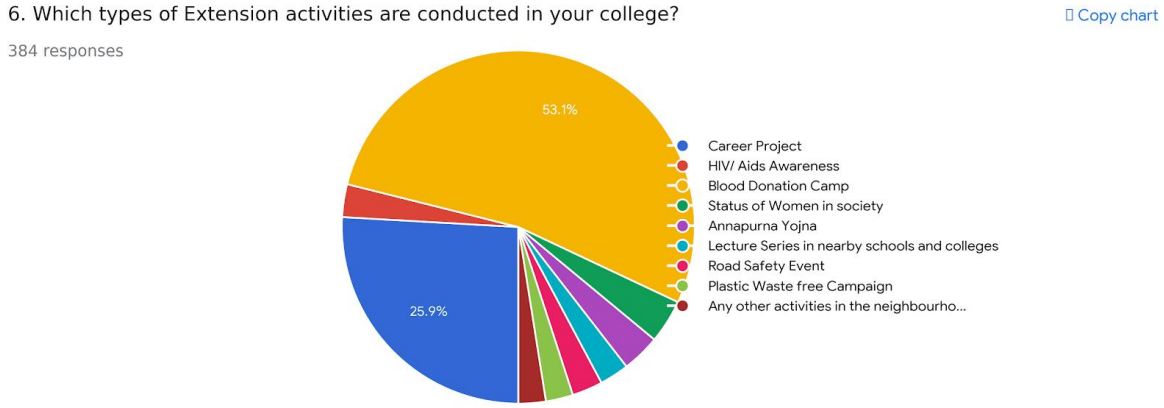
Interpretation:

The results reveal strong awareness and moderate engagement of students in co-curricular, extracurricular, and extension activities. A large majority of respondents (82.6%) reported being aware of such activities in their colleges, while only a small fraction (4.7%) indicated unawareness, suggesting effective communication and visibility of these initiatives.

In terms of the monthly frequency of activities (Q2.2), more than half of the students (55%) reported that their institutions conduct 1–5 activities per month, indicating regular but limited activity schedules. About a quarter (26.8%) experienced 5–10 activities per month, while nearly a fifth (18.2%) noted more than 10 activities monthly, showing that activity intensity varies across institutions.When examining student participation frequency (Q2.3), the largest group (39.4%) indicated they "sometimes" participate, reflecting selective involvement depending on interest, opportunity, or time availability. A smaller portion participated often (22.6%) or always (20%), while the remaining were occasional or less consistent participants.The findings suggest that while awareness levels are high, active participation remains moderate, with many students engaging only occasionally. This points to possible barriers such as time constraints, academic pressures, or limited interest that may influence sustained involvement.

Challenges Faced in Participation (Objective c)



Question	1 = Strongly Disagree	2 = Disagree	3 = Neutral	4 = Agree	5 = Strongly Agree	Total (n)
Q6.1: Balance participation with academics	40 (10.4%)	60 (15.6%)	95 (24.7%)	120 (31.3%)	69 (18.0%)	384
Q6.2: Limited opportunities to participate	50 (13.0%)	80 (20.8%)	110 (28.6%)	95 (24.7%)	49 (12.8%)	384
Q6.3: Lack of time prevents engagement	30 (7.8%)	55 (14.3%)	85 (22.1%)	130 (33.9%)	84 (21.9%)	384
Q6.4: Financial constraints limit participation	65 (16.9%)	100 (26.0%)	110 (28.6%)	75 (19.5%)	34 (8.9%)	384
Q6.5: More guidance & mentorship needed	40 (10.4%)	70 (18.2%)	90 (23.4%)	115 (29.9%)	69 (18.0%)	384

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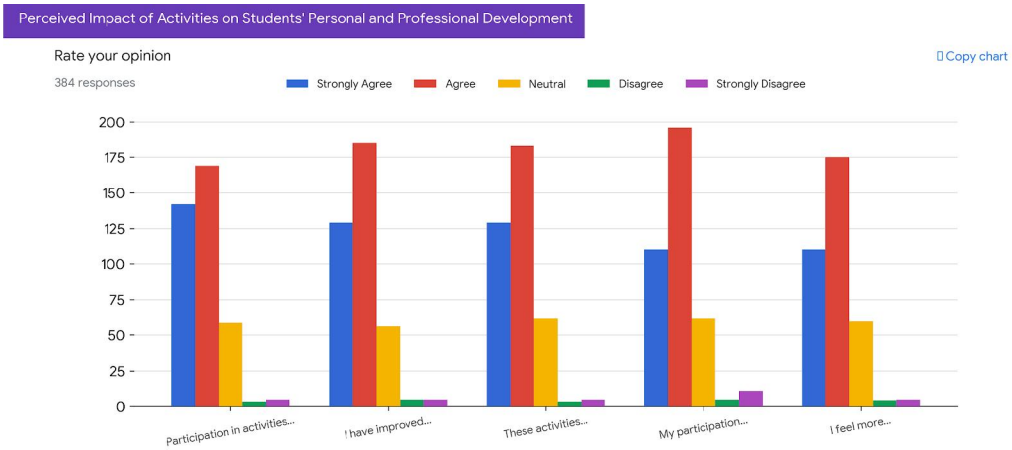
Interpretation:

Descriptive Statistics (Mean, Rank order of challenges)

Challenge Item	M	SD	Rank
Balancing academics and participation (Q6.1)	3.54	1.07	1
Lack of time (Q6.3)	3.51	0.96	2
Need for mentorship (Q6.5)	3.41	1.01	3
Limited opportunities (Q6.2)	3.19	1.09	4
Financial constraints (Q6.4)	2.81	1.15	5

Interpretation:

The analysis of challenges faced in participation (Q6.1–Q6.5) highlights several significant barriers experienced by students. Balancing academic responsibilities with participation emerged as the most pressing challenge ($M = 3.54$, SD = 1.07), followed closely by a lack of time to fully engage in activities ($M = 3.51$, SD = 0.96). Guidance and mentorship needs ($M = 3.41$, SD = 1.01) also ranked highly, suggesting that students require more structured support from faculty and mentors to engage effectively. Limited opportunities to participate ($M = 3.19$, SD = 1.09) were perceived as a moderate challenge, while financial constraints were rated lowest ($M = 2.81$, SD = 1.15), indicating that monetary issues are less significant compared to time and academic balance concerns. Overall, the findings suggest that institutional efforts should focus on helping students balance academics with participation, providing flexible schedules, and enhancing mentorship opportunities.



Overall Satisfaction and Perception (Objective d)

Question	1= Strongly Disagree	2 = Disagree	3 = Neutral	4 = Agree	5= Strongly Agree	Total
Q7.1: Satisfied with variety of activities	20 (5.2%)	40 (10.4%)	80 (20.8%)	150 (39.1%)	94 (24.5%)	384
Q7.2: Activities made me well-rounded	18 (4.7%)	35 (9.1%)	90 (23.4%)	160 (41.7%)	81 (21.1%)	384
Q7.3: Recommend others to participate	25 (6.5%)	45 (11.7%)	85 (22.1%)	145 (37.8%)	84 (21.9%)	384
Q7.4: Activities contributed to overall development	15 (3.9%)	40 (10.4%)	95 (24.7%)	150 (39.1%)	84 (21.9%)	384
Q7.5: Experience was positive and enriching	20 (5.2%)	30 (7.8%)	85 (22.1%)	155 (40.4%)	94 (24.5%)	384

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Interpretation:

The frequency analysis of overall satisfaction (Q7.1–Q7.5) indicates a generally positive perception of co-curricular, extracurricular, and extension activities among students. For Q7.1, a majority of respondents (63.6%) agreed or strongly agreed that they were satisfied with the variety of activities, with only 15.6% expressing disagreement. Similarly, 62.8% of students felt that these activities made them well-rounded individuals (Q7.2). Recommendation to peers (Q7.3) was also strong, with 59.7% agreeing or strongly agreeing. A comparable trend was observed in Q7.4, where 61% acknowledged that the activities significantly contributed to their overall development. Finally, the most favorable responses were seen for Q7.5, with 64.9% of students rating their experience as positive and enriching. While a minority expressed disagreement across items (approximately 10–15%), and around one-fifth remained neutral, the overall results highlight a strong endorsement of these activities in enhancing student satisfaction and holistic development.

Challenges

1. **Limited Accessibility Despite Available Infrastructure** :Although Panvel City has adequate infrastructure to support co-curricular, extracurricular, and extension activities, many learners face difficulties in accessing these facilities. Issues such as lack of clear communication, scheduling overlaps, procedural barriers, and limited awareness reduce effective utilization.
2. **Time Constraints and Personal Commitments** : While students are willing to participate, academic workload, examination pressure, project deadlines, and personal responsibilities limit their active involvement in various activities.
3. **Lack of Institutional Support and Mentorship**:Some learners experience insufficient encouragement, guidance, and mentorship from teaching and non-teaching staff, which affects their motivation and sustained participation.
4. **Low Awareness Among Newly Admitted Students**:Many fresh entrants are not fully aware of the benefits and long-term impact of participating in co-curricular, extracurricular, and extension activities.

V. FINDINGS

1. Positive impact on student development: Participation in co-curricular, extracurricular, and extension activities significantly improves self-confidence, leadership, teamwork, communication, time management, and sense of responsibility among students.
2. Favorable student perception: Around 55–60% of students view these activities positively, noting benefits like better academic understanding, improved discipline, focus, and time management.
3. Supports academic performance: The study confirms that these activities enhance academic outcomes, helping students understand concepts better and stay more focused and disciplined.
4. Direct link to holistic growth: There is a clear relationship between the type/frequency of participation and overall student development, including personal, professional, and career readiness skills.
5. Awareness, participation & challenges: Most students are aware of such activities and participate moderately; institutions provide good support, but balancing academics with activities remains a key challenge.

VI. SUGGESTIONS

1. **Improving Accessibility and Communication** : Institutions should enhance communication through notices, digital platforms, and structured activity calendars. Simplifying registration procedures and appointing activity coordinators can improve access and participation.
2. **Providing Personalized Guidance and Flexible Scheduling** : Faculty members can offer one-on-one mentoring to help students manage time effectively. Flexible activity schedules and academic support can assist students in balancing studies and participation.

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3. **Strengthening Mentorship and Institutional Support** :Institutions should sensitize teaching and non-teaching staff to actively encourage student involvement. Establishing structured mentorship **programs can provide continuous guidance and motivation.**
4. **Conducting Comprehensive Orientation Programs**: Colleges should organize orientation sessions, especially for newly admitted students, to highlight the academic, personal, and professional benefits of participating in
such activities, thereby fostering reminder and consistent engagement.

VII. CONCLUSIONS

1. Significant number of respondents reported that participating in extracurricular and co-curricular activities have a greater positive impact in their academic, personal and professional pursuits
2. About 63.1% of respondents either agreed or strongly agreed that participation in the said activities boosted their self-confidence, improved leadership and teamwork skills were reported by 61.5%, and enhanced communication and interpersonal skills was observed by 59.2%
3. A good percentage (56.3%) of students acknowledged that such activities helped them learn effective time management
4. About 56.7% of respondents reported that participating in activities help them in preparing for their future career.
5. Overall, there is a positive perspective about the activities and participating in those activities among the various categories of learners (cutting across gender and different levels of academic pursuits)

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1. H. David Hunt – 2007, The effect of extracurricular activities in the educational process: Influence on Academic outcomes?
2. Wilson, Nikki L. – 2009, Impact of extra-curricular activities on students
3. Claudette Christison – 2013, Benefits of Participating in Extracurricular Activities
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