ASSOCIATION OF INDIAN UNIVERSITIES

Special Issue

on

RETHINKING ASSESSMENT AND EVALUATION

on the occasion of

AIU SOUTH ZONE VICE CHANCELLORS' MEET—2025

hosted by

VELLORE INSTITUTE OF TECHNOLOGY, VELLORE

on

JANUARY 10-11, 2025

Association of Indian Universities
New Delhi

&

Vellore Institute of Technology, Vellore
Tamil Nadu

Welcome

The delegates to the

AIU South Zone
Vice Chancellors' Meet—2024-25
(January 10-11, 2025)

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From the Desk of President, AIU...

I am delighted to extend a warm welcome to all the esteemed Vice Chancellors and distinguished participants attending the AIU South Zone Vice Chancellors Meet-2024-25 on the theme "*Rethinking Assessment and Evaluation*" to be held at Vellore Institute of Technology, Vellore, Tamil Nadu, during January 10-11, 2025.

This pivotal gathering serves as a unique platform for us to engage in meaningful dialogue, exchange best practices, and collectively explore the challenges and opportunities that shape the current and future landscape of higher education. As leaders within the education fraternity, our responsibilities extend well beyond administrative functions; we are the custodians of academic excellence and the catalysts for innovative changes that drive our institutions forward.

The main theme of this South Zone VC's Meet, *"Rethinking Assessment and Evaluation"* is both timely and pertinent, reflecting the need to continuously evolve and adapt our methods to ensure they meet the demands of modern education. This meet will provide us with an invaluable opportunity to delve into contemporary strategies and methodologies, fostering an environment where new ideas can flourish. Additionally, the meeting will include technical sessions on the following sub-themes:

- Innovative Assessment Methods and Experiential Learning
- Viability of One Nation One Exam System
- Continuous Comprehensive Assessment Techniques

Adding further depth to the event, there will be a special session on *Innovation, Skilling, Ranking, and Assessment.*

The South Zone VC Conference will be a platform for thought leaders, educators, and policymakers to converge and deliberate on the future of assessment and evaluation. I am confident that the discussions and insights gained during this conference will pave the way for meaningful reforms in our education system. Let us embrace this opportunity to redefine assessment, ensuring that it becomes a catalyst for learning and growth.

On behalf of the Association of Indian Universities, I extend my heartfelt thanks to Vellore Institute of Technology, Vellore, Tamil Nadu for hosting this significant conference and to all the distinguished Vice Chancellors and delegates for their participation. Together, let us embark on this transformative journey to create an education system that truly nurtures the potential of every learner.

I look forward to the insightful discussions and collaborative efforts that will undoubtedly emerge from this event. Your participation and contributions are crucial in shaping a progressive and forward-thinking higher education system.

Vinay Kumar Pathak

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Setting the Tone for AIU South Zone Vice Chancellors' Meet-2024-25 on
Rethinking Assessment and Evaluation

Pankaj Mittal*

The Association of Indian Universities (AIU), one of the premier apex higher education institutions of the Country established in 1925, is a research-based policy advice institution to the Government of India in the field of Higher Education, Sports & Culture and internationalization. Dr. Sarvepalli Radhakrishnan, Dr. Zakir Hussain and Dr. Syama Prasad Mukherjee are among some of the stalwarts who served AIU as its president. It currently has a membership of 1056 universities including 18 international universities. Since its inception, it has been playing a vital role in shaping Indian higher education. AIU is vested with the power for according equivalence to Degrees/Qualifications offered by the universities across the world with those offered in India. Being an apex institution, it constitutes an integral part of decision-making and facilitates cooperation and coordination among Indian universities and liaise between the universities and the Government and also national and international bodies of higher education in other countries in matters of common interest. Also, AIU plays a dynamic role in shaping Indian higher education by being a research-based policy advice institution to the Government of India in the fields of Higher Education, Sports, and Youth Affairs & Culture. As a National Sports Promotion Organization (NSPO) it promotes sports among Member-Universities.

One of the significant activities of the AIU is to convene the Vice Chancellors Meets at the Zonal and National levels to discuss various issues related to higher education. India is a country with a large geographical area, for ease of reaching out, AIU has grouped the member HEIs into 5 zones i.e., North, South, East, West and Central. Thus, 5 Zonal Meets and one National Conference of Vice Chancellors are organized annually. These Meets are important platforms not only to discuss the significant issues of higher education but also to play a catalytic role

in finding solutions for different problems of higher education through collective wisdom. Further, AIU carries forward the voice of the participating leaders of higher education to appropriate agencies and authorities for their dispensation. Every year in the National Conference of Vice Chancellors, a specific theme that is of topical significance for the higher education community is taken up for discussion. As a run-up, subthemes related to the main theme are discussed in the AIU Zonal Vice Chancellors Meets.

Themes for The AIU Zonal Vice Chancellors Meet –2024-25

Based on current drifts and latent progresses, it is the right time to discuss about role of India in shaping the future of higher education. Therefore, for the year 2024-25, AIU has chosen the main theme "Envisioning Future Higher Education: The Pivotal Role of India" for the AIU National Conference of Vice Chancellors and all the five Zonal Vice Chancellors Meets. Under this overarching theme, the following themes are proposed for the AIU's Zonal Conferences:

North Zone: *Technological Integration in Higher Education*

West Zone: *Leadership and Governance in Higher Education*

South Zone: *Rethinking Assessment and Evaluation*

Central Zone: *Globalization and Internationalization*

East Zone: *Equity, Diversity and Sustainability*

AIU South Zonal Vice Chancellors Meet on "Rethinking Assessment and Evaluation"

Assessment and evaluation in higher education play a pivotal role in measuring student learning, guiding instructional practices and ensuring the effectiveness of various academic programs. Effective assessment involves a variety of methods,

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including formative assessments, summative evaluations, peer reviews and self-assessments, to provide a comprehensive understanding of student progress and performance. By employing diverse assessment strategies, educators can capture different dimensions of learning, such as critical thinking, problem-solving abilities and practical application of knowledge. The evaluation processes should be aligned with clearly defined learning outcomes and institutional goals, fostering a culture of accountability and continuous improvement. Ultimately, thoughtful assessment and evaluation practices in HEIs not only enhance the educational experience but also prepare students to meet the demands of a rapidly changing global landscape.

Rethinking assessment and evaluation in higher education is essential for fostering deeper learning and equipping students with the skills necessary for the complexities of the modern world. Traditional assessment methods often focus on rote memorization and standardized testing, which may not accurately reflect a student's understanding or ability to apply knowledge in real-world situations. Instead, a more holistic approach that incorporates formative assessments, project-based learning and collaborative evaluations can provide a comprehensive view of student progress and engagement. By emphasizing critical thinking, creativity and practical application, institutions can better prepare graduates for the challenges of their respective fields, ensuring that assessments are aligned with both academic goals and the evolving demands of the workforce. This shift not only enhances the learning experience but also promotes a culture of continuous improvement and adaptability within educational environments.

Also, in accordance with NEP—2020, the assessment and evaluation system emphasize a transformative approach that prioritizes holistic and competency-based evaluation methods over traditional rote learning assessments. The policy also advocates for continuous and comprehensive assessment strategies that include formative evaluations, project work and peer assessments, encouraging critical thinking and practical application of knowledge. By promoting flexibility in assessment formats and integrating technology, NEP 2020 aims to create a more student-centric evaluation framework that not only measures academic performance but also fosters creativity, collaboration, and lifelong learning skills. This shift is designed to enhance the overall educational experience and better prepare students for the demands of the future workforce.

The **AIU South Zone Vice Chancellors' Meet – 2024-25** will be held at **Vellore Institute of Technology Vellore, Tamil Nadu** during **10-11 Jan, 2025**. The broad theme of the Meet is **"Rethinking Assessment and Evaluation"**. The South Zone is constituted of HEIs located in the states of Tamil Nadu, Andhra Pradesh, Puducherry, Karnataka, and Kerala.

The sub-themes of the Meet are:

- Innovative Assessment Methods and Experiential Learning
- Viability of One Nation One Exam System
- Continuous Comprehensive Assessment Techniques

Also, there would be a session on Innovation, Skilling, Ranking and Assessment.

Innovative Assessment Methods and Experiential Learning

Innovative assessment methods and experiential learning are integral to modern education, fostering a more engaging and practical learning experience for students. By incorporating approaches such as project-based assessments, peer evaluations and portfolios, educators can gauge students' understanding and skills in real-world contexts, rather than relying solely on traditional examinations. Experiential learning, which emphasizes hands-on experiences, internships and collaborative projects, allows students to apply theoretical knowledge in practical situations, enhancing their problem-solving abilities and critical thinking skills. This combination of innovative assessments and experiential learning not only deepens students' understanding but also prepares them to navigate complex challenges in their future careers, ensuring that they are not just knowledgeable but also adaptable and resourceful in a rapidly changing world.

Incorporating innovative assessment methods alongside experiential learning also promotes a culture of reflection and self-assessment among

students. By engaging in activities such as reflective journaling, group presentations and simulations, learners are encouraged to critically analyze their experiences, identify areas for improvement and understand the impact of their learning journey. This process not only enhances their metacognitive skills but also fosters a sense of ownership over their educational outcomes. Such assessments also provide valuable feedback for educators, enabling them to tailor their teaching strategies to better meet the diverse needs of students. This dynamic interplay between innovative assessments and experiential learning cultivates a more holistic educational environment that prioritizes student growth, adaptability, and preparedness for future challenges.

NEP–2020 also projected innovative assessment methods and experiential learning as significant components to reshape the educational landscape, emphasizing a shift from traditional examination formats to more diverse, competency-based evaluations. The policy also encourages HEIs to adopt flexible assessment strategies that integrate real-life experiences and collaborative projects, ensuring that students not only acquire knowledge but also develop essential skills like critical thinking, creativity, and teamwork. By fostering an environment where assessment is continuous and reflective, NEP 2020 aims to create a more engaging and effective learning experience that prepares students to thrive in a rapidly evolving global context.

Viability of One Nation One Exam System

The One Nation One Exam system aims to streamline the examination process for HEIs admissions, promoting equity and accessibility across diverse regions and socio-economic backgrounds. While the concept holds the potential to reduce the burden of multiple entrance exams and provide a standardized measure of student performance, its viability hinges on addressing several critical factors. These include ensuring uniformity in educational quality across states, developing a robust evaluation framework that reflects regional diversity and incorporating diverse assessment methods to accommodate varying learning styles. Also, for implementing the One Nation One Exam System, it is required to be supported by adequate infrastructure, teacher training and technology to facilitate smooth implementation. Balancing standardization with the need for inclusivity and flexibility is essential for the success of such an ambitious initiative, ultimately aiming to enhance the overall quality of education and access to higher learning opportunities in the country.

Moreover, the success of the One Nation One Exam system will depend on active stakeholder of HEIs, including students, educators and policymakers, to ensure that the system addresses the unique needs and concerns of all participants. It is crucial to incorporate feedback mechanisms to continuously refine and improve the examination process, ensuring it remains relevant and effective. By fostering transparency and inclusivity in its design and implementation, the system can help build trust among students and educators, ultimately contributing to a more equitable and efficient higher education landscape in India.

Continuous Comprehensive Assessment Techniques

Continuous Comprehensive Assessment is an innovative approach for evaluation that emphasizes the ongoing assessment of a student's learning progress throughout the academic year, rather than relying solely on end-of-term examinations. It encompasses various methods, including formative assessments, projects, class participation and peer reviews, to provide a holistic view of a student's capabilities and growth. This approach encourages active learning and engagement, allowing educators to identify strengths and areas for improvement in real-time, thus facilitating timely interventions and personalized support. By promoting a culture of continuous feedback and reflection, CCA not only enhances academic performance but also promotes essential skills such as critical thinking, collaboration and self-assessment, ultimately contributing to the overall development of well-rounded learners.

Also, the Continuous Comprehensive Assessment aligns with modern educational philosophies that prioritize learner-centred approaches, encouraging students to take ownership of their learning journey. By integrating diverse assessment methods and allowing for multiple opportunities to demonstrate understanding, it nurtures a growth mindset, where students view

challenges as opportunities for improvement rather than mere obstacles. This shift not only reduces the pressure associated with high-stakes testing but also fosters a more supportive and motivating learning environment, ultimately leading to deeper engagement and better retention of knowledge among students.

Session on Innovation, Skilling, Ranking and Assessment

Innovation in higher education drives transformative changes in teaching, learning and research. It involves adopting new technologies, interdisciplinary approaches, and creative problem-solving to address contemporary challenges. By fostering a culture of innovation, institutions empower students to think critically and develop solutions for real-world issues, ensuring they are prepared for the rapidly evolving global landscape. Whereas, skilling focuses on equipping students with industry-relevant competencies and practical knowledge essential for employability and entrepreneurship. Higher education institutions play a pivotal role in bridging the skill gap by integrating vocational training, internships, and experiential learning, ensuring that graduates possess both theoretical understanding and hands-on expertise.

Rankings in HEIs play a crucial role in assessing and showcasing their academic quality, research output, and institutional performance on a national and global scale. The importance of rankings in Higher Education Institutions (HEIs) lies in their ability to serve as benchmarks for academic excellence, institutional reputation, and global competitiveness. Rankings provide prospective students, faculty, and stakeholders with valuable insights into an institution's strengths, including its academic programs, research output, infrastructure, and employability of graduates. It serves as a guiding framework for students, parents, and stakeholders in selecting institutions that align with their aspirations and career goals. High rankings boost an HEI's reputation, enabling it to attract top-tier faculty, researchers, and students while fostering collaborations with leading global institutions and industries. Rankings also encourage healthy competition among HEIs, driving continuous improvement in teaching standards, research innovation, and overall infrastructure. For

policymakers and administrators, rankings offer valuable insights into the strengths and weaknesses of HEIs, enabling them to align their strategies with global benchmarks and enhance their contribution to societal development. Also, aassessment is a cornerstone of ensuring academic quality and student learning outcomes in higher education. By implementing diverse and innovative evaluation methods, institutions can measure knowledge, skills and competencies effectively. Robust assessment frameworks help identify gaps, improve teaching methodologies and maintain accountability, fostering an environment of excellence.

Participation

Vice Chancellors/ Directors of Indian Universities/ Institutes, experts from the Government of India, senior officials of Apex Bodies of Higher Education and Academia will be Chairpersons and Speakers during the various session of the Meet. Experts from international organizations will also be invited to contribute during the discussion. All the deliberation will take place in English language. The sessions will be conducted in physical mode, however, in case any Chairperson/ Speaker is unable to attend the meet through physical mode, she/he may attend the meet in a blended mode.

The AIU South Zone Vice Chancellors Meet 2024-25 will also be attended by more than 100 Vice Chancellors/ Directors of AIU member Universities/ Institutes of the South Zone covering the states of Tamil Nadu, Andhra Pradesh, Puducherry, Karnataka, and Kerala.

Format and Approach

The two-day event will include the Inaugural Session, Session on Innovation, Skilling, Ranking and Assessment, AIU Business Session, Valedictory Session and 3 Technical Sessions to discuss the concerned topics.

The 3 Technical Sessions will be held on following sub-themes:

Technical Session 1: Innovative Assessment Methods and Experiential Learning

Technical Session 2: Viability of One Nation One Exam System

Technical Session 3*:* Continuous Comprehensive Assessment Techniques

Additionally, there would be one *Session on Innovation, Skilling, Ranking and Assessment*.

Each Technical Session will be of approximately of 1 Hour and 30 minutes. In each Session, there will be 1 chairperson and 3 speakers including experts from Government and HEIs. Presentations will be followed by interaction and Question and Answer session. Based on deliberations; a commitment statement will be framed for the universities to further the cause of Higher Education in India. In addition to academic deliberations, capacity development initiatives will be taken by forming a group of Vice Chancellors who will work on various dimensions of assessment and evaluation system in higher education.

Conclusion

In conclusion, the South Zone Meet 2024-25 being hosted by held at the esteemed Vellore Institute of Technology in Tamil Nadu from January 10th to 11th, 2025, promises to be a dynamic and insightful event, featuring significant gathering that will bring together the brightest minds and leaders from Higher Education Institutions (HEIs) across Tamil Nadu, Andhra Pradesh, Puducherry, Karnataka, and Kerala to delve into the broad theme of "Rethinking Assessment and Evaluation".

Aimed at fostering dialogue and innovative approaches, the meet will explore sub-themes such as Innovative Assessment Methods and Experiential Learning, the Viability of a One Nation One Exam System, and Continuous Comprehensive Assessment Techniques. These discussions are poised to spark transformative ideas and strategies that can reshape the educational landscape.

Adding further depth to the event, there will be a special session on Innovation, Skilling, Ranking, and Assessment. This session is expected to address the evolving needs of the education sector, emphasizing the importance of skill development, innovative practices, and the criteria for educational excellence. Overall, the meet is set to be a catalyst for progressive change, promoting a holistic and forward-thinking approach to assessment and evaluation in the South Zone's educational institutions.

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University News

Wishes its Readers

A Very Healthy and Happy

New Year 2025
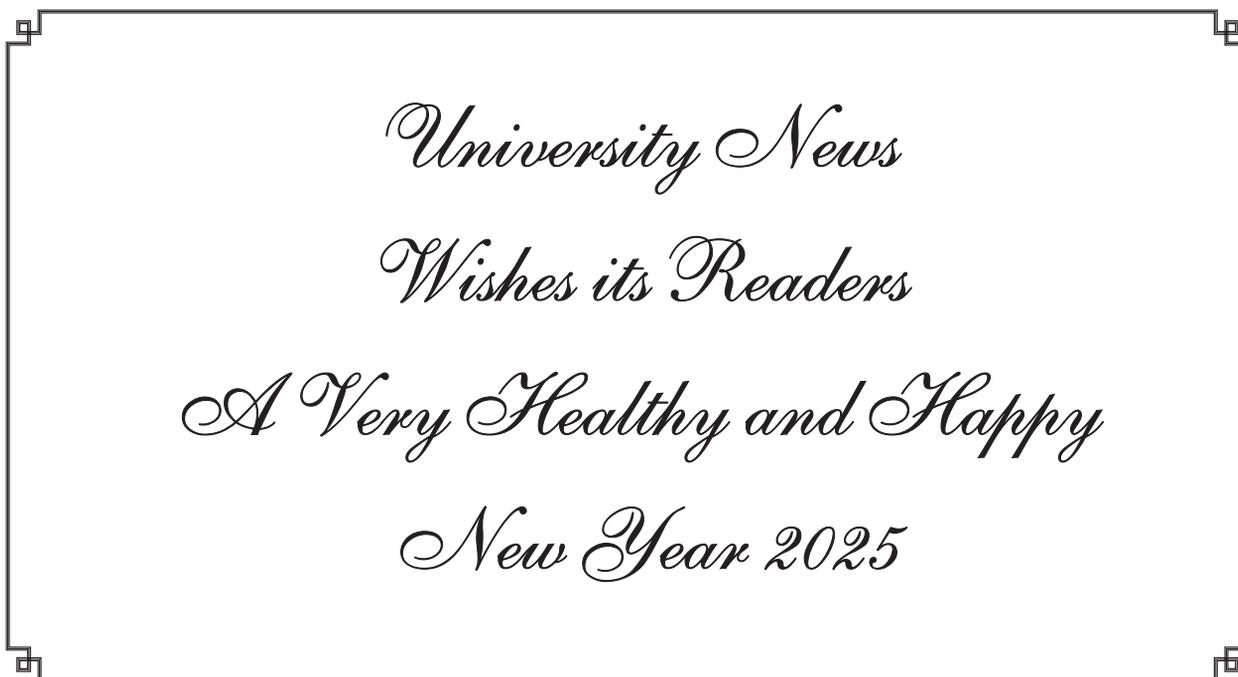
A Comprehensive Roadmap to Institutional Accreditation: Ensuring Quality and Continuous Improvement

Yogeshchandra Sharma*

In higher education, accreditation serves as a cornerstone of quality assurance, validating an institution's commitment to excellence across various dimensions. As educational standards evolve, accrediting bodies like the National Assessment and Accreditation Council (NAAC) continuously refine their metrics to encompass a broader scope of institutional effectiveness. The latest NAAC framework is anticipated to introduce ten comprehensive criteria: Curriculum Design, Faculty, Infrastructure, Finance, Learning & Teaching Processes, Extended Curricular Engagements, Governance, Student Outcomes, Research & Innovation, and Sustainability. Each criterion delineates essential facets that educational institutions must strategically plan, execute, and evaluate to achieve accreditation success in a dynamic and competitive landscape.

Accreditation- Need and Benefits

Accreditation in higher education serves as a cornerstone for ensuring academic quality and institutional integrity. It involves a rigorous evaluation process conducted by recognized accrediting agencies, which assesses various aspects of an institution including its curriculum, faculty qualifications, student support services, and overall educational outcomes. Accreditation not only validates an institution's commitment to maintaining high standards but also enhances its reputation and credibility both locally and internationally. For students and their families, accreditation provides assurance that the education offered meets established benchmarks of quality and prepares graduates for success in their chosen fields. Moreover, accredited institutions often have access to government funding, grants, and collaborative opportunities, further supporting their ability to provide a comprehensive and enriching educational experience. Overall, accreditation plays a pivotal role in fostering educational excellence and ensuring accountability within the higher education sector. Figure 1 outlines the benefits of accreditation.

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Recommendations to the Institutions

By adhering to following recommendations, institutions can create a robust framework for achieving and sustaining accreditation success, ensuring their continuous improvement and contribution to educational excellence and societal well-being.

1. Implement Continuous Curriculum Review and Improvement: Regularly update curricula to align with evolving industry standards and accreditation requirements.

2. Strengthen Faculty Development Programs: Invest in ongoing professional development to enhance teaching effectiveness and faculty satisfaction.

3. Enhance Infrastructure and Learning Resources: Continuously upgrade facilities and technology to support modern teaching and learning needs.

4. Ensure Financial Stability and Accountability: Develop robust financial management practices to secure funding and maintain transparency.

5. Promote Innovative Teaching and Learning Methods: Incorporate active learning, technology, and experiential learning to enhance student engagement.

Figure 1: Benefits of Accreditation for Various Stakeholders and Students

6. Expand Extended Curricular Engagements: Foster holistic student development through diverse co-curricular and extracurricular activities.

7. Foster Effective Governance and Leadership: Develop strategic leadership and inclusive governance practices to drive institutional success.

8. Monitor and Improve Student Outcomes: Implement strategies to enhance retention, graduation rates, and post-graduation success.

9. Support Research and Innovation: Encourage research activities, secure funding, and promote innovation to advance knowledge and societal impact.

10. Commit to Sustainability Initiatives: Adopt sustainable practices and engage in green initiatives to contribute positively to the environment and society.

Curriculum Design

A well-structured curriculum is paramount to achieving accreditation success and ensuring educational excellence. The cornerstone of this structure is an outcome-based curriculum, focusing on defining clear learning outcomes that align with both accreditation standards and industry expectations. To create a robust and relevant curriculum, stakeholder participation is crucial; involving faculty, students, employers, and alumni ensures diverse perspectives shape the educational offerings. Curriculum flexibility allows institutions to adapt to changing educational needs and emerging trends, while a practical and industry focus ensures the curriculum is aligned with current professional practices. Practical and skill orientation emphasizes hands-on learning experiences, preparing students for real-world challenges. Additionally, integrating online and blended learning modalities caters to diverse learning preferences and expands access to education. Regular curriculum revision guarantees that the content remains current and relevant, incorporating the latest developments and feedback from stakeholders. The inclusion of the Indian Knowledge System enriches the curriculum by integrating traditional wisdom and indigenous knowledge, fostering a holistic and inclusive educational experience. These elements create a dynamic and responsive curriculum that meets accreditation standards and prepares students for future success. The whole process can be understood through the flow chart provided in Figure 2.

Figure 2: Different Stages of Curriculum Design
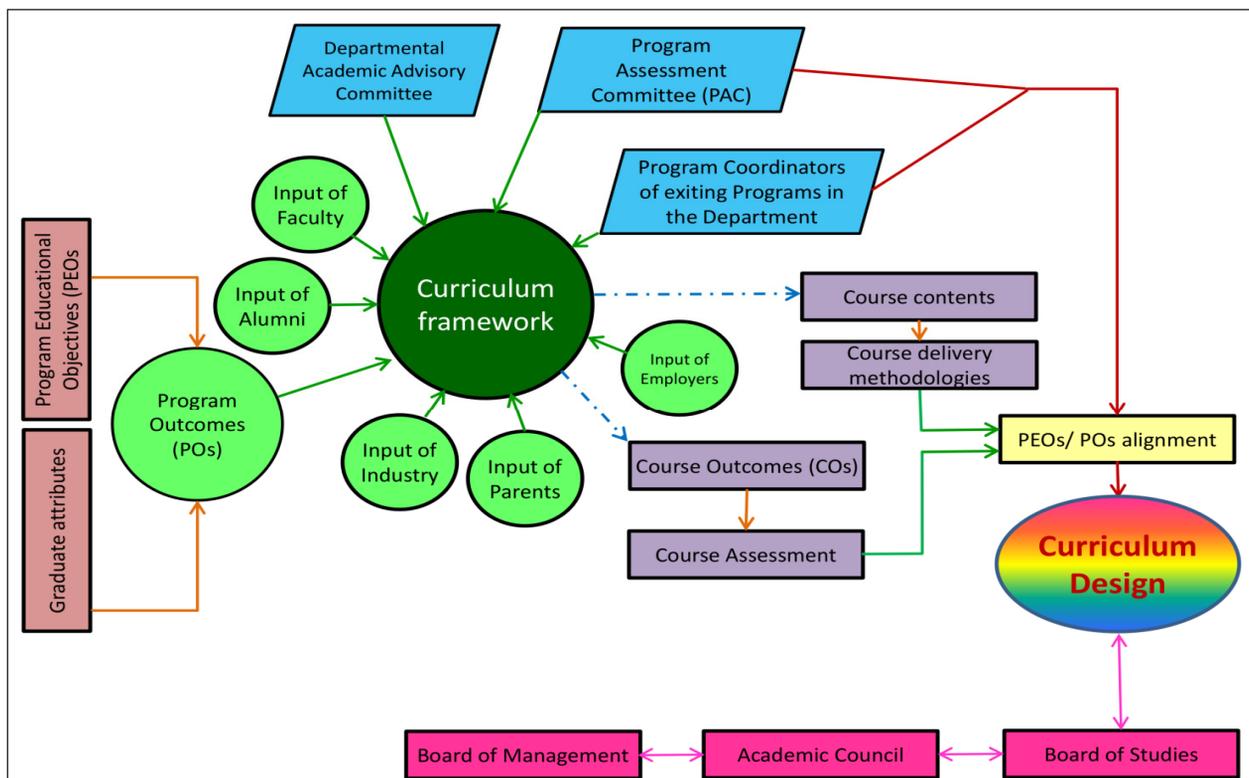
Faculty Resources

An institution's success and accreditation depend significantly on the quality and management of its faculty resources. Effective faculty recruitment strategies ensure highly qualified and experienced professionals are brought on board, enriching the academic environment. Competitive pay and allowances are essential for attracting top talent and maintaining their motivation and commitment to the institution's goals. Faculty diversity enhances the learning experience by bringing a variety of perspectives and expertise, fostering an inclusive academic community. Ongoing faculty development programs are crucial for keeping faculty updated with the latest teaching methodologies and industry trends, thereby enhancing their instructional capabilities. Faculty retention strategies, including professional growth opportunities and supportive work environments, help maintain stability and continuity within the institution. Maintaining an optimal faculty-student ratio is vital for providing personalized attention and support to students, which is a critical factor in both academic success and accreditation standards. These elements ensure faculty resources are effectively planned, managed, and evaluated, contributing significantly to the institution's accreditation success.

Learning and Teaching Processes

Effective learning and teaching processes are fundamental to achieving accreditation success and ensuring educational excellence. Comprehensive academic planning involves designing and implementing curricula that align with institutional goals and accreditation standards. Innovative teaching methods, such as active learning, flipped classrooms, and experiential learning, enhance student engagement and learning outcomes. Assessment and evaluation practices, including formative and summative assessments, provide valuable insights into student learning and inform instructional improvements. Student support services, such as academic advising, tutoring, and counseling, help students achieve their academic goals and enhance their overall experience. Continuous improvement practices, such as faculty development and curriculum review, ensure learning and teaching processes remain effective and relevant. These elements of learning and teaching processes contribute significantly to the institution's accreditation success and academic excellence.

Student Outcomes

Achieving and maintaining high student outcomes is essential for accreditation success and institutional excellence. Student retention and graduation rates, indicating the institution's ability to support students through to completion, are key metrics of success. Employment and further education rates, reflecting the institution's effectiveness in preparing students for the job market and advanced studies, are also critical. Student satisfaction, encompassing academic, social, and support services, provides valuable insights into the overall student experience. These elements of student outcomes contribute significantly to the institution's accreditation success and overall effectiveness. Figure 3 illustrates the various benefits of defining student outcomes.

Extended Curricular Engagements

Extended curricular engagements, including co-curricular and extracurricular activities, play a vital role in holistic student development and accreditation success. Co-curricular activities, such as academic clubs, competitions, and seminars, enhance students' learning experiences and foster the development of critical skills. Extracurricular activities, including

Figure 3: Benefits of Defining Student Outcomes
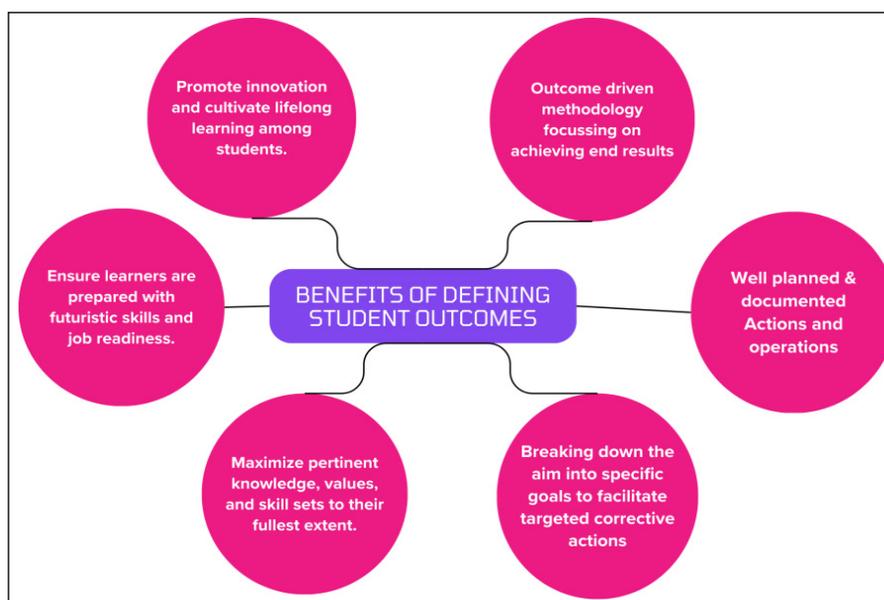
sports, cultural events, and community service, promote personal growth, teamwork, and social responsibility. Leadership development programs, such as student government and leadership workshops, prepare students for future leadership roles and responsibilities. Community engagement initiatives, such as service-learning projects and partnerships with local organizations, strengthen the institution's connection to the community and promote civic responsibility. These extended curricular engagements contribute significantly to students' overall development, institutional reputation, and accreditation success.

Research and Innovation Outcomes

Research and innovation outcomes are pivotal indicators of an institution's academic vitality and its contribution to societal advancement. Securing external research grants reflects the institution's ability to attract funding for cutting-edge research, supporting faculty and student research endeavors. The quantity and quality of research publications demonstrate the institution's commitment to advancing knowledge and contributing to academic discourse. The number of PhDs awarded indicates the institution's role in developing high-level expertise and fostering academic leaders. Offering research fellowships provides crucial support for emerging scholars and enhances the institution's research capabilities. The production of intellectual property rights (IPRs) underscores the institution's contributions to innovation and the commercialization of research. Effective research collaboration with other institutions and industries fosters interdisciplinary approaches and enhances research impact. Additionally, the emergence of student startups is a testament to the institution's encouragement of entrepreneurial thinking and innovation among its students. These outcomes illustrate the institution's robust research environment and its pivotal role in driving innovation and academic excellence.

Infrastructure and Learning Resources

Infrastructure and learning resources form the backbone of an educational institution, directly influencing its ability to provide quality education and achieve accreditation standards. Adequate physical facilities, including classrooms, laboratories, and libraries, are essential for creating a conducive learning environment. Information technology (IT) resources, such as computer labs, internet access, and digital learning platforms, play a crucial role in supporting modern teaching and learning methods. Library resources, encompassing a wide range of

books, journals, and online databases, are vital for academic research and study. E-learning resources, including online courses and digital libraries, enhance accessibility and flexibility in education. Research facilities, such as specialized labs and research centers, support faculty and student research activities, fostering innovation and discovery. Maintenance of infrastructure ensures facilities remain safe, functional, and up-to-date, supporting the institution's mission and goals. These elements of infrastructure and learning resources are crucial for providing a high-quality educational experience and meeting accreditation standards.

Financial Resources

Effective financial management is critical for ensuring the sustainability and growth of educational institutions, directly impacting their ability to achieve and maintain accreditation. Adequate funding and budgeting ensure resources are allocated efficiently to support academic programs, infrastructure, and operational needs. Financial controls and accountability mechanisms are essential for maintaining transparency and integrity in financial operations, preventing fraud and mismanagement. Revenue diversification strategies, such as fundraising, grants, and partnerships, help institutions mitigate financial risks and enhance their financial stability. Cost management practices, including cost-saving measures and efficiency improvements, ensure resources are used effectively and responsibly. Financial sustainability, achieved through prudent financial planning and management, ensures institutions can meet their long-term financial obligations and strategic goals. These elements of financial management are crucial for supporting the institution's mission and goals, enhancing its reputation, and meeting accreditation standards.

Governance and Leadership

Effective governance and leadership are critical for achieving accreditation success and ensuring institutional excellence. Strategic leadership, involving the development and implementation of long-term goals and objectives, provides direction and vision for the institution. Governance practices, such as policies, procedures, and decision-making structures, ensure the institution operates efficiently and transparently. Stakeholder involvement, including faculty, staff, students, and external partners, fosters a collaborative and inclusive decision-making process. Ethical leadership, characterized by integrity, accountability, and transparency, builds trust and credibility with stakeholders. These elements of governance and

leadership contribute significantly to the institution's accreditation success and overall effectiveness.

Sustainability (Green Initiatives)

Sustainability initiatives are crucial for modern institutions aiming to achieve accreditation success and contribute positively to the environment and society. Community activities focused on sustainability engage students, faculty, and local residents in projects that promote environmental awareness and action. Effective waste and water management strategies ensure the institution minimizes its environmental footprint by reducing waste, recycling, and conserving water resources. Progressing towards net zero emissions demonstrates a commitment to reducing carbon footprints through energy efficiency, renewable energy adoption, and sustainable practices across campus operations. Regular green audits and initiatives help monitor and improve the institution's environmental performance, identifying areas for further sustainability efforts. Collaborations with industry and NGOs leverage external expertise and resources, fostering innovative solutions and enhancing the institution's impact on broader sustainability goals. These efforts not only contribute to a healthier planet but also align with accreditation standards that emphasize social responsibility and environmental stewardship.

Conclusion

Achieving accreditation success requires a comprehensive and strategic approach that integrates meticulous planning, alignment of institutional objectives, effective execution of activities, and comprehensive reporting. By focusing on key areas such as curriculum design, faculty resources, infrastructure, financial management, learning and teaching processes, extended curricular engagements, governance, student outcomes, research and innovation, and sustainability, educational institutions can navigate the complexities of the accreditation process. This holistic approach ensures institutions not only meet accreditation standards but also foster a culture of continuous improvement, excellence, and sustainability. As educational landscapes evolve, maintaining accreditation success will remain a dynamic challenge, requiring institutions to adapt and innovate continuously. By adopting a structured and integrated framework, institutions can achieve and sustain accreditation, ensuring their long-term success and contribution to society.

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Transforming Higher Education: Good Practices for Academic Excellence and Innovation

J Madegowda*

The Imperative for Transformation in Higher Education

This paper examines the need for, and importance of, transformation within higher education, exploring best practices that foster academic excellence and innovation. The landscape of higher education is rapidly evolving, driven by globalization, technological advancements, and shifting societal expectations. Traditional pedagogical approaches and institutional structures are increasingly inadequate to meet the demands of the 21st century. This paper synthesizes existing research to identify key trends, challenges, and effective strategies for creating a more dynamic and responsive higher education system. The focus encompasses pedagogical innovation, the role of technology, leadership and governance structures, human resource management strategies, and the development of a robust research culture. The goal is to provide a comprehensive overview of the best practices that are shaping the future of higher education, ultimately aiming for improved academic outcomes and a more innovative learning environment (Suyo-Vega et al., 2024; Maiya & Aithal, 2023; Almazroui & Shatnawi, 2024).

Pedagogical Innovation: Shifting from Traditional to Student-Centered Approaches

The evolving landscape of higher education demands a paradigm shift from conventional teacher-led instructions to student-centered learning frameworks. By prioritizing active engagement, collaboration, and experiential learning, the innovative approaches are expected to empower students to take ownership of their education, fostering critical thinking, creativity, and lifelong learning skills.

Active Learning Methodologies and Student-Centered Pedagogies

A paradigm shift is underway in higher education pedagogy, moving away from the traditional lecture-based model towards more active and student-centered approaches. Research consistently demonstrates the superior effectiveness of active learning methodologies in enhancing student engagement, critical thinking abilities, and knowledge retention. Problem-based, project-based, and inquiry-based learning are important examples of such methods. These approaches encourage students to take ownership of their learning, actively participate in knowledge construction, and apply their knowledge to real-world scenarios (Cai, 2017). Studies show that active learning leads to deeper understanding and better long-term retention compared to passive listening to lectures (Carvalho et al., 2021). Furthermore, active learning fosters critical thinking skills, as students are challenged to analyze information, solve problems, and make informed decisions (Fang, 2024). The successful implementation of these student-centered pedagogies requires a significant investment in faculty development. Faculty members need training and support to effectively design and deliver active learning experiences. This includes learning how to facilitate discussions, guide collaborative projects, and provide constructive feedback that promotes student learning (Nancy Al-Hamad et al., 2023). The shift towards student-centered learning also necessitates a change in assessment methods. Traditional examinations, which often focus on rote memorization,[1] are less effective in evaluating the deeper learning that active learning methodologies aim to achieve. Alternative assessment methods, such as portfolios,[2] presentations, and projects, can better capture students' understanding and application of knowledge (Fadeke et al., 2024). The successful integration of active learning methods requires a careful consideration of the specific learning objectives of a course, the available resources, and the unique needs of the student population (Keeton, 2004).

The Role of Formative Assessment in Enhancing Learning

Formative assessment[3] is an integral component of effective instruction, particularly within innovative pedagogical frameworks. Its primary function is to provide continuous feedback to students during the

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learning process, allowing them to identify areas for improvement and adjust their learning strategies accordingly. This continuous feedback loop[4] is crucial for fostering student growth and achievement. Formative assessment is not solely about grading; it is a tool for enhancing learning. By providing timely and specific feedback, faculty members can guide students toward a deeper understanding of the subject matter and help them develop essential skills (Vass, 2024). The use of formative assessment techniques, such as quizzes, short assignments, and peer feedback, allows faculty members to monitor student progress and identify any learning gaps early on. This allows for timely interventions that can prevent students from falling behind. Furthermore, formative assessment encourages students to take ownership of their learning, as they are actively involved in the evaluation process and receive regular feedback on their performance. This promotes self-reflection and metacognition,[5] which are important skills for lifelong learning (Loureiro & Gomes, 2022). The effective integration of formative assessment with active learning methodologies creates a synergistic learning environment. Active learning provides opportunities for students to actively engage with the material, while formative assessment offers regular feedback that helps students refine their understanding and skills. This iterative process enhances both knowledge acquisition and skill development (Sandra BaroudiAreej ElsayaryAreej Elsayary, 2024). The design and implementation of formative assessment should be aligned with the overall learning goals of the course and tailored to the specific needs of the students. It is crucial to ensure that the feedback provided is constructive, timely, and actionable, enabling students to make meaningful progress in their learning. However, to address this objective, it is necessary to have an adequate number of qualified faculty members and a manageable number of students.

Addressing Challenges in Pedagogical Implementation

While the benefits of innovative pedagogies are well-documented, their widespread adoption faces significant challenges. One of the prevalent obstacles is faculty members' resistance to change. Many faculty members are comfortable with traditional teaching methods and may be hesitant to adopt new approaches that require significant changes to their teaching practices. This resistance can stem from a lack of training, a lack of confidence in their ability to implement new methods effectively, or simply a preference for familiar approaches (Uzdenova et al., 2020). Another significant challenge is the lack of adequate resources and infrastructure to support the implementation of innovative pedagogies. Active learning methodologies often require more resources than traditional lecture-based instruction, including technology, materials, and space. Institutions with limited resources may struggle to provide the necessary support for faculty members to effectively implement these methods (Hannon, 2008). This is especially true for state universities and colleges that provide general degree programs, which are struggling financially. Nevertheless, ongoing professional development is essential for supporting faculty members in their adoption of innovative pedagogies. They need ongoing training and support to stay abreast of new research and best practices, and to refine their skills in implementing these methods effectively. This requires a sustained commitment from institutions to provide ongoing professional development opportunities for faculty members (Liu et al., 2012). Finally, the diversity of student needs and learning styles poses a challenge to the implementation of any pedagogical approach. Effective instruction requires faculty members to adapt their methods to meet the diverse needs of their students, providing a flexible and adaptable learning environment that caters to different learning styles and preferences (Fadeke et al., 2024). The successful implementation of innovative pedagogies requires a multifaceted approach that addresses these challenges proactively. This includes providing adequate resources, fostering a culture of innovation, providing ongoing professional development, and creating a supportive environment for both faculty members and students (Appolloni et al., 2021). The integration of technology can also play a role in mitigating some of these challenges (Goode et al., 2022).

The Transformative Role of Technology in Higher Education

Technology has emerged as a cornerstone in redefining higher education, enhancing accessibility, efficiency, and personalization in learning. From virtual classrooms to AI-driven analytics, technological advancements are bridging gaps, fostering inclusivity, and equipping students with skills aligned to the demands of a digital-first world.

Integrating Educational Technology for Enhanced Learning

The integration of educational technology is significantly transforming the teaching and learning experience in higher education. Learning management systems (LMS), online learning platforms, and interactive multimedia resources are enhancing accessibility, engagement, and flexibility. LMS platforms, such as Moodle, Canvas, and Blackboard,[6] provide a centralized hub for course materials, assignments, and communication, thereby improving accessibility by making course materials available to students anytime, anywhere. Online learning platforms offer a variety of tools and resources, including interactive simulations, virtual labs, and multimedia presentations, that can enhance student engagement and understanding. Interactive multimedia resources, such as videos, animations, and simulations, make learning more engaging and memorable, especially for students who learn best through visual or kinesthetic methods[7] (Uys et al., 2004). The integration of technology goes beyond replacing traditional methods with digital equivalents; it creates new learning opportunities and enhances the overall educational experience. Technology can facilitate collaborative learning, provide personalized feedback, and offer adaptive learning experiences tailored to individual student needs (NaN, 2022). The effective use of technology in higher education necessitates careful planning and implementation, which includes selecting appropriate technologies, providing adequate training for faculty members and students, and ensuring seamless integration into the curriculum. Successful integration demands a thoughtful pedagogical approach that leverages technology to enhance, rather than simply replace, traditional teaching methods (Limani et al., 2019). Moreover, access to reliable internet connectivity and appropriate devices is vital for ensuring equitable access to technology-enhanced learning. Institutions must address digital equity issues to ensure all students have equal opportunities to benefit from technology integration.

Addressing the Challenges of Digital Transformation

The digital transformation of higher education presents several challenges that must be addressed proactively. Digital equity is a critical concern. Not all students have equal access to technology, reliable internet connectivity, or the digital literacy skills necessary to succeed in a technology-rich learning environment. This digital divide can exacerbate existing inequalities and create barriers to educational access for underprivileged students (Bilyk., & Shpileva., 2024). Robust cybersecurity measures are essential to protect sensitive student and institutional data. The increasing reliance on digital platforms makes HEIs vulnerable to cyberattacks, requiring the development of effective cybersecurity policies and practices to safeguard institutional and student data. Institutions must invest in robust cybersecurity infrastructure and provide training for faculty members and staff on secure online practices. The rapid pace of technological change necessitates continuous adaptation and professional development for both faculty members and students. Faculty members must adapt their teaching methods to incorporate new technologies and pedagogical approaches that leverage technology effectively. Students must also develop their digital literacy skills to navigate the increasingly complex digital learning environment (Tri, 2023). The ethical implications of using artificial intelligence (AI)-driven tools in education are a growing concern. AI tools, such as ChatGPT, offer significant potential for enhancing learning, but they also raise ethical questions about plagiarism, academic integrity, and the potential for bias in AI algorithms (Kumar & Shobana, 2024). Institutions need to develop clear policies and guidelines for the ethical use of AI in education, while also providing training for both faculty members and students on the responsible use of these tools. Addressing these challenges requires a holistic and proactive approach that involves institutional leadership, faculty development, and student support. It also requires ongoing dialogue and collaboration among stakeholders to ensure that technology is used ethically and effectively to enhance, rather than hinder, the educational experience (Dai et al., 2023). The integration of technology must be driven by pedagogical principles, prioritizing learning outcomes over technological features. This requires a deep understanding of how technology can be used to enhance teaching and learning, rather than simply adopting technology for the sake of it (Fang, 2024). The rapid advancements in MOOCs (Massive Open Online Courses) and other online learning platforms present both opportunities and challenges. MOOCs have democratized access to education, but they also raise questions about quality assurance, assessment methods, and the role of faculty members in online learning environments.

Online Learning and Immersive Delivery Models

The rise of online learning, particularly accelerated by the COVID-19 pandemic, has significantly impacted higher education. The rapid shift to remote learning highlighted both the potential and limitations of online instruction. While online learning offers increased accessibility and flexibility, it also presents challenges related to student engagement, interaction, and the need for robust technical support (Appolloni et al., 2021). The development of immersive delivery models, which combine online and in-person components, is gaining traction as a way to leverage the benefits of both modalities while mitigating their limitations. Immersive models offer a more flexible and engaging learning experience, allowing students to learn at their own pace and in a variety of settings (Neumann & Baumann, 2021). However, the successful implementation of immersive delivery models requires careful consideration of pedagogical design, technical infrastructure, and faculty training. Interactive learning modules, which incorporate multimedia elements and opportunities for student interaction, are crucial for maintaining engagement in online learning environments. Synchronous class attendance,[8] while not always essential, can provide valuable opportunities for community building and real-time interaction. The quality of online learning is significantly impacted by factors such as interactivity, media richness, and constructive alignment of learning activities with assessment (Goode et al., 2022). The effective integration of online learning requires a deep understanding of pedagogical principles and the careful design of learning experiences that engage students and support their learning needs. Furthermore, robust technical support is essential for addressing technical issues and providing timely assistance to both students and faculty members. The shift to online and immersive models necessitates a continuous evaluation of their effectiveness and adaptation to meet the evolving needs of students and faculty members (Hannon, 2008). The use of open educational resources (OERs) and MOOCs can also enhance the accessibility and affordability of higher education, but careful consideration must be given to quality assurance and pedagogical alignment (Bandalaria, 2018). The integration of online learning requires a thoughtful approach that considers the pedagogical implications and addresses the potential challenges to ensure a high-quality learning experience (Keeton, 2004).

Leadership and Governance: Fostering a Culture of Excellence and Innovation

Effective leadership and governance are pivotal in driving academic excellence and fostering a culture of innovation in higher education. By promoting strategic vision, inclusive decision-making, and accountability, institutions can create an ecosystem that nurtures creativity, collaboration, and continuous improvement.

Transformational Leadership in Higher Education

Effective leadership is essential for driving transformation within HEIs. Transformational leadership, known for its vision, inspiration, and empowerment, is particularly effective in cultivating a culture of innovation and continual enhancement. Transformational leaders inspire and motivate their teams, establishing a shared vision for the future and empowering individuals to take ownership of their work. They promote a culture of collaboration and risk-taking, fostering experimentation and innovation (Romadhona & Mursyidah, 2024). Additionally, effective leadership entails developing strong relationships with stakeholders, such as faculty members, students, staff, and community members. This collaborative approach ensures that institutional objectives are in line with the needs and expectations of all stakeholders (Augustus et al, 2005). Moreover, leaders must create a supportive environment that values diversity, equity, and inclusion. This involves actively promoting diversity among faculty members and staff, establishing inclusive policies and practices, and nurturing a culture of respect and understanding (Makondo, 2012). Successful leadership in higher education necessitates a thorough understanding of the challenges and opportunities confronting institutions, along with the ability to navigate intricate political and organizational landscapes. Leaders should articulate a clear vision for the future, garner consensus among stakeholders, and adeptly manage change. They must also adapt their leadership style to address the specific needs of their institution and its community (Tassone et al., 2018). Developing transformational leadership skills among higher education administrators is critical for fostering a culture of continual improvement and innovation. This requires ongoing professional development opportunities focused on leadership skills, strategic planning, and change management (Khalilov, 2024). Establishing a robust and ethical leadership culture is paramount in ensuring the integrity and success of

transformative endeavors in higher education (Japos, 2007).

Strategic Planning and Data-driven Decision Making

Strategic planning is a critical tool for guiding institutional transformation in higher education. A well-defined strategic plan provides a roadmap for achieving institutional goals, allocating resources effectively, and adapting to changing circumstances. Data-driven decision-making, informed by rigorous evaluation and assessment, is crucial for ensuring that resources are allocated effectively and that institutional goals are aligned with evolving demands. This involves collecting and analyzing data on various aspects of institutional performance, including student outcomes, faculty productivity, and resource allocation (Quitoras & Abuso, 2021). The use of data analytics can help institutions identify areas for improvement, track progress toward goals, and make informed decisions about resource allocation (Daud, 2023). Furthermore, a participatory approach to strategic planning is essential. This involves engaging stakeholders, including faculty members, students, staff, and community members, in the strategic planning process. This ensures that the strategic plan reflects the needs and priorities of all stakeholders and fosters a sense of ownership and commitment to its implementation (Power & Handley, 2019). Strategic planning should also be a dynamic and iterative process, reviewed and updated periodically to reflect changing priorities and circumstances. This ensures that the institution remains adaptable and responsive to evolving demands. The integration of strategic planning with continuous improvement methodologies, such as the Plan-Do-Check-Act[9] (PDCA) cycle, can enhance the effectiveness of the strategic planning process. (Paradeise & Thoenig, 2013) Effective strategic planning in higher education requires a clear understanding of the institution's mission, vision, and values, as well as a comprehensive assessment of the internal and external environment. It also requires strong leadership, effective communication, and a commitment to continuous improvement. The implementation of strategic plans requires effective monitoring and evaluation systems that track progress toward goals and provide feedback for continuous improvement (Abena & Anita, 2020). The successful implementation of strategic plans necessitates a culture of collaboration and shared responsibility among all stakeholders (Sandra & Elsayary, 2024).

Governance Structures and Institutional Autonomy

The governance structures of HEIs significantly influence their capacity for innovation and change. Institutions with greater autonomy often demonstrate greater agility and responsiveness to emerging challenges. This autonomy permits institutions to adapt their policies and practices to meet the specific needs of their students and faculty members and to experiment with new approaches to teaching and learning (Maiya & Aithal, 2023). However, institutional autonomy must be balanced with accountability. Institutions must be held accountable for their performance and ensure that their actions align with broader societal needs and expectations. Effective governance in higher education requires a balance between autonomy and accountability, ensuring that institutions are both free to innovate and responsible for their actions (Boer & Leisyte, 2007). The governance structure should facilitate effective communication and collaboration among stakeholders, promoting shared decision-making and ensuring that the institution's actions align with its mission and values (Galliot & Zossou, 2020). A clear and transparent governance structure is essential for building trust among stakeholders and ensuring the institution's legitimacy. This involves establishing clear lines of authority and responsibility, developing effective communication channels, and ensuring that decision-making processes are fair and equitable (Donkeng Nazo, 2022). The governance structure should also support the development of a culture of innovation and continuous improvement. This involves creating an environment that encourages risk-taking, experimentation, and collaboration, and providing the necessary resources and support for innovation initiatives (T Kamble & Kariguleshwar, 2023). The relationship between governance structures and institutional autonomy is complex and varies across different educational systems and institutional contexts. The optimal balance between autonomy and accountability depends on the specific circumstances of each institution (Vrba, 2024).

Human Resource Management: Investing in Faculty Development and Support

Faculty members are the cornerstone of academic excellence, and investing in their continuous development is not only desirable but also essential

for institutional success. By providing opportunities for professional growth, mentoring, and robust support systems, HEIs can empower educators to innovate, inspire, and excel in their roles.

FDPs and Continuous Professional Growth

Investing in faculty development is essential for fostering a culture of continuous improvement and innovation in higher education. Effective faculty development programs (FDPs) equip faculty members with the knowledge, skills, and attitudes necessary to excel in their roles. These programs should focus on pedagogical innovation, technology integration, and research skills development (Nancy Al-Hamad et al., 2023). Pedagogical innovation training should expose faculty members to new teaching methodologies, such as active learning, problem-based learning, and inquiry-based learning. Technology integration training should equip faculty members with the skills to effectively use technology to enhance teaching and learning, including the use of learning management systems, online learning platforms, and interactive multimedia resources. Research skills development programs should provide faculty members with the support and resources they need to conduct high-quality research and disseminate their findings effectively (Fadeke et al., 2024). Mentorship programs can provide valuable support and guidance for faculty members, particularly those early in their careers. Mentors can provide advice and feedback on teaching and research, help faculty members navigate institutional policies and procedures, and foster a sense of community and belonging (Carney et al, 2016). Opportunities for collaboration and networking are also essential for faculty development. This includes providing opportunities for faculty members to collaborate on research projects, participate in professional development workshops, and attend conferences. This fosters a sense of community and shared purpose among faculty members, promoting a culture of continuous learning and improvement (Vrba, 2024). The effective design and implementation of FDPs require careful consideration of faculty needs and institutional priorities. Programs should be tailored to the specific needs of the faculty members and aligned with the institution's strategic goals.

Addressing Faculty Recruitment and Retention Challenges

Attracting and retaining high-quality faculty members is a critical challenge for HEIs. Competitive salaries, supportive work environments, and opportunities for professional growth are essential for attracting and retaining talented individuals (Vrba, 2024). Furthermore, institutions must create a supportive work environment that values work-life balance and addresses issues such as workload management. This involves providing adequate resources and support staff, implementing policies that promote work-life balance, and fostering a culture of respect and collaboration (Makondo, 2012). The recruitment process should be transparent and equitable, ensuring that all applicants are treated fairly and that the institution attracts a diverse pool of candidates. This involves developing clear recruitment criteria, using diverse recruitment channels, and ensuring that the selection process is free from bias (Carney, 2016). Retention strategies should focus on providing ongoing professional development opportunities, creating opportunities for leadership and advancement, and fostering a sense of community and belonging among faculty members. This involves providing opportunities for faculty members to participate in professional development activities, leadership training, and networking events. It also involves fostering a culture of collegiality and mutual support among faculty members (Galliot & Zossou, 2020). Institutions must actively address issues related to faculty workload and work-life balance, ensuring that faculty members have adequate time for teaching, research, service, and personal pursuits. This might involve providing additional support staff, adjusting teaching loads, or implementing policies that promote work-life balance (T Kamble & Kariguleshwar, 2023). The successful recruitment and retention of high-quality faculty members requires a multifaceted approach that addresses both individual and institutional factors, with a commitment to providing competitive salaries, supportive work environments, and opportunities for professional growth.

Diversity, Equity, and Inclusion in Higher Education

Creating a diverse, equitable, and inclusive environment is essential for fostering a vibrant and innovative learning community in higher education. "Diversity" encompasses the representation of individuals from various backgrounds, including race, ethnicity, gender, sexual orientation, socioeconomic status, and disability. "Equity" involves ensuring that all members of the community have equal opportunities to succeed, regardless of their background. "Inclusion" involves creating a

welcoming and supportive environment where all individuals feel valued, respected, and empowered to contribute their unique perspectives and talents (Nancy et al., 2023). Institutions must actively recruit/admit and support faculty members and students from diverse backgrounds. This involves developing targeted recruitment strategies, providing mentoring and support programs for underrepresented groups, and creating inclusive policies and practices that promote equity and inclusivity at all levels of the institution (Fadeke Adeola Atobatele et al., 2024). Addressing systemic biases in hiring, promotion, and evaluation processes is crucial for creating a truly equitable environment. This involves developing clear and objective criteria for evaluation, providing training for faculty members and staff on unconscious bias, and implementing policies that promote fairness and transparency (Galliot & Zossou, 2020). Creating an inclusive learning environment requires a commitment to fostering a culture of respect and understanding. This involves providing training for faculty members and staff on cultural competency, creating opportunities for students to interact with individuals from different backgrounds, and implementing policies that promote inclusivity in the classroom and throughout the campus community (Japos, 2007). The successful creation of a diverse, equitable, and inclusive environment requires a multifaceted approach that involves institutional leadership, faculty development, and student support. It requires a commitment to addressing systemic biases, implementing inclusive policies and practices, and fostering a culture of respect and understanding (Kumar & Shobana, 2024).

Fostering a Research-Oriented Culture: Advancing Knowledge and Innovation

A research-oriented culture serves as the foundation for advancing knowledge, driving innovation, and addressing global challenges. By prioritizing research excellence, interdisciplinary collaboration, and robust support for scholarly activities, HELs can position themselves as catalysts for transformative change and societal impact.

The Importance of Research in Higher Education

A strong research culture is essential for advancing knowledge, driving innovation, and contributing to societal progress. HEIs have a responsibility to create an environment that supports and encourages faculty members to engage in research, scholarship, and creative activities (Almazroui & Shatnawi, 2024). Research enhances teaching effectiveness, as faculty members who are actively engaged in research are more likely to bring current knowledge and insights into the classroom. Research also strengthens the institution's reputation and attracts high-quality students and faculty members. A research-oriented culture benefits the broader society by contributing to knowledge creation and innovation, addressing societal challenges, and facilitating policy decisions (Maiya & Aithal, 2023). The development of a research culture requires a multi-pronged strategy that involves creating a supportive environment, providing resources, and incentivizing research activities. Institutions must create a supportive environment that values research, provides adequate time and resources for research, and rewards faculty members for their research accomplishments (Aithal et al., 2024). This includes providing seed funding for research projects, establishing collaborative research centers, and promoting interdisciplinary research initiatives (Donkeng Nazo, 2022). A robust research infrastructure is crucial, including access to research facilities, libraries, and technology. Institutions should also provide administrative and technical support for research projects, freeing up faculty members time to focus on their research activities (Quitoras & Abuso, 2021). The establishment of mentorship programs, particularly for junior faculty members, can help foster a research culture by providing guidance and support for those early in their research careers (Makondo, 2012).

Strategies for Enhancing Research Productivity

HEIs can employ various strategies to enhance research productivity. Providing seed funding for research projects can offer the initial resources necessary for faculty members to launch new research endeavors, which can be particularly beneficial for early-career faculty members or high-risk projects with the potential for high rewards (Donkeng Nazo, 2022). Establishing collaborative research centers can facilitate interdisciplinary research and promote sharing of resources and expertise, bringing together faculty members from different disciplines to work on common research themes, fostering innovation and collaboration (Aithal et al., 2024). Promoting interdisciplinary research initiatives can lead to more innovative and impactful research outcomes by bringing together researchers from different

domains to address complex problems that require a multi-faceted approach, resulting in more innovative solutions and greater societal impact (Almazroui & Shatnawi, 2024). Developing clear metrics and incentives for research output can encourage faculty members to prioritize research activities, involving establishing criteria for evaluating research performance, providing incentives for research productivity, and recognizing and rewarding faculty members for their research achievements (Japos, 2007). Institutions should also provide adequate time and support for faculty members to engage in research activities, including release time for research, access to research facilities, and administrative support for research projects (Makondo, 2012). Furthermore, fostering a culture of collaboration and knowledge sharing can enhance research productivity by creating opportunities for faculty members to interact and collaborate with colleagues from other institutions, attend conferences and workshops, and disseminate research findings through publications and presentations (Carney et at, 2016).

Connecting Research to Societal Needs

HEIs have a crucial role to play in addressing societal challenges through research. Connecting research to societal needs enhances the relevance and impact of research activities. Community-based research involves collaborating with community organizations to address local issues. This approach not only benefits the community but also provides valuable opportunities for students and faculty members to engage in real-world problem-solving (Almazroui & Shatnawi, 2024). Translating research findings into practical applications ensures that research has a tangible impact on society. This involves working with industry partners to develop and commercialize new technologies and innovations based on research findings (Donkeng Nazo, 2022). Disseminating research results to a wider audience ensures that the findings of research are accessible to the public and inform policy decisions. This involves publishing research in peer-reviewed journals, presenting research findings at conferences, and communicating research results to the public through various channels (Serdyukov, 2017). Fostering strong collaborations with external partners, such as government agencies, industry organizations, and community groups, is essential for connecting research to societal needs. These partnerships provide access to resources, expertise, and opportunities for real-world application of research findings (Aithal et al., 2024). Institutions should actively seek opportunities to engage in community-based research, translate research findings into practical applications, and disseminate research results to a wider audience. This requires a strong commitment to public engagement and a willingness to collaborate with external partners (Suyo-Vega et al., 2024). The integration of research with teaching and learning can enhance the educational experience, providing students with opportunities to participate in research projects and learn about the research process (Maiya & Aithal, 2023). The successful connection of research to societal needs requires a multifaceted approach that involves institutional leadership, faculty engagement, and community partnerships. It requires a commitment to translating research findings into practical applications and disseminating research results to a wider audience. (Tassone et al., 2018)

Conclusion: A Path Forward for Transforming Higher Education

Transforming higher education is a multifaceted and ongoing endeavor that necessitates a sustained commitment from all stakeholders. The integration of innovative pedagogies, strategic use of technology, effective leadership and governance, investment in human resources, and the cultivation of a research-oriented culture are all essential components of this transformation. By embracing good practices and addressing the challenges identified in this paper, HEIs can create a more dynamic and responsive system that prepares students for the challenges and opportunities of the 21st century (Suyo-Vega et al., 2024). The successful transformation of higher education requires a holistic approach that considers the interconnectedness of these various elements. Innovative pedagogies should be supported by effective technology integration and a strong research culture. Effective leadership and governance structures are crucial for fostering a culture of innovation and continuous improvement. Investment in human resources is essential for developing a skilled and engaged workforce (Maiya & Aithal, 2023). The ongoing evaluation and adaptation of practices are crucial for sustained success in this evolving landscape. Institutions should regularly assess the effectiveness of their transformative initiatives and adjust their strategies accordingly (Almazroui & Shatnawi, 2024).

Further research is needed to explore the long-term impact of these transformative initiatives and to identify new good practices that can further enhance academic excellence and innovation. This includes research on the effectiveness of different pedagogical approaches, the impact of technology on student learning, the role of leadership in driving change, and the development of a robust research culture (Viktoriia et al, 2024; Peláez et al., 2024; Paredes & Arteaga, 2023).

Notes

(1) "Rote memorization" refers to the process of learning and retaining information by repeating it over and over without necessarily understanding its deeper meaning, context, or application. It focuses primarily on the mechanical recall of facts or data rather than developing a conceptual grasp or critical thinking skills.

(2) "Portfolios" refer to a collection of work that demonstrates a student's learning, skills, achievements, and progress over time. They are often used as an assessment tool to showcase a student's competencies and reflective learning in a structured and comprehensive manner.

(3) "Formative assessment" refers to a range of evaluative activities conducted during the learning process to monitor students' understanding, skills, and progress. The primary objective of formative assessment is to provide timely and constructive feedback to both students and instructors, enabling them to improve learning outcomes and instructional strategies.

(4) "Feedback loop" refers to a cyclical process of providing, receiving, and acting on feedback to improve learning outcomes, teaching effectiveness, and overall educational practices. It emphasizes the continuous exchange of information among students, instructors, and sometimes peers, ensuring that feedback leads to meaningful adjustments and growth.

(5) "Metacognition" refers to the awareness and understanding of one's own thought processes. It involves the ability to reflect on, regulate, and evaluate how one learns, thinks, and solves problems. It is often described as "thinking about thinking" and is a critical component of effective learning and academic success.

(6) "Moodle, Canvas, and Blackboard" are Learning Management Systems widely used in higher education. These platforms provide a digital environment where educators and students can interact, access course materials, manage assignments, and track learning progress.

(7) "Kinesthetic methods" refer to teaching and learning strategies that involve physical movement, hands-on activities, and tactile engagement to help students absorb and retain knowledge. These methods are particularly effective for students who learn best by doing or through experiential activities.

(8) "Synchronous class attendance" refers to students participating in real-time classes or lectures, either in person or through online platforms. In a synchronous setting, students and instructors are present simultaneously, allowing for live interaction, discussion, and immediate feedback.

(9) The "Plan-Do-Check-Act" (PDCA) cycle, also known as the Deming Cycle or Shewhart Cycle, is a continuous improvement methodology widely used in education, business, and other fields to enhance processes and achieve better outcomes. It emphasizes iterative progress and adaptability through structured steps.

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Bloom's Taxonomy: A Review

G Gopalakrishnan*

Bloom's Taxonomy had its origin in the *Taxonomy of Educational Objectives, originally enunciated by Benjamin Bloom in 1956 along with his group of* Max Englehart, Edward Furst, Walter Hill, and David Krathwohl. This system of teaching had been adapted by several generations of teachers in the Schools, Colleges and Universities worldwide. Originally Bloom's Taxonomy was based on the six cognitive principles of "*Knowledge, Comprehension, Application, Analysis, Synthesis and Evaluation*". These six cognitive factors were later brought in with knowledge as a basis into the six cognitive processes, and changed the whole taxonomy as knowledge based six areas of cognition. *Factual Knowledge, Conceptual Knowledge, Procedural Knowledge, Meta-cognitive Knowledge, Strategic Knowledge and Self-knowledge* Bloom's Taxonomy underwent a further transformation as - *Remember, Understand, Apply, Analyze, Evaluate and Create*. Researchers, testing and assessment specialists in a group later modified the theory on which Bloom's Taxonomy was first initiated.

Psychologists and Teachers feel alike that the Bloom's Pyramid may be inverted and that *Create, Analyze and Evaluate* should be at the top with the fundamental *Remembering* and *Understanding* at the bottom. Knowledge is replaced by Remembering.

Modified bloom's taxonomy ultimately had a framework of three domains:

*"**Cognitive** - Knowledge based Older Version – Knowledge, Comprehension, Application, Analysis, Synthesis and Evaluation. Newer Version {RBT} –Remembering, Understanding, Applying, Analyzing, Evaluating, Creating*

*   **Affective** - Attitudinal based Feelings, Values, Appreciation, Enthusiasms, Motivations, and Attitudes*

*   **Psychomotor** – Action based Awareness, Movement, Response, Complex Response {Expert}, Adapt, Originate"*

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Reasons for Using Bloom's Taxonomy

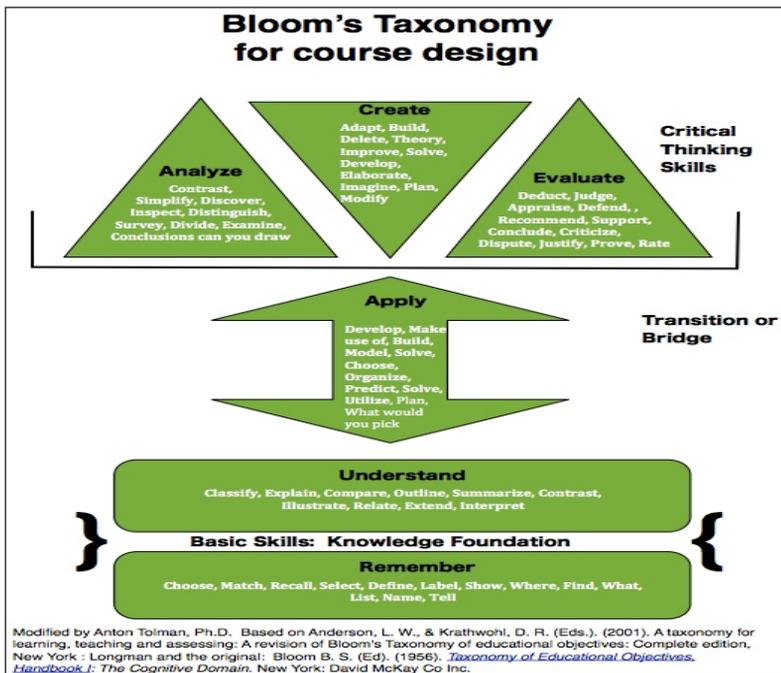Some of the reasons why Bloom's Taxonomy is preferred are:

- "Sets systems necessary to create an exchange of ideas between the teacher and the learner, setting up clear objectives to clarify the need for such a curriculum, planning and framing lessons delivery, create valid assessment methods in line with course and program objectives.

- Apart from being a means of qualitative expressions of the intellectual methods of skills and attitudes adapted in the educational field, cognitive and affective domains offer a method of organizing skills into six distinct levels. Taxonomy is a process by which students learn, teachers plan their curricula and lessons, teaching, assessing the learners and the learning methods

- The Revised Bloom's Taxonomy is a process to communicate to entire academic and intellectual Diaspora – the teachers, students, parents and the managements the outcomes coming out and resulting from instructions. A framework created for learning objectives which help communicate cognitive processes and outcomes".

Bloom's theory should not be taken as the hierarchy of learning attributes; rather debatable whether "creating" and "evaluation" are better than "analyzing". Many feel that an Anton Tolman's inverse pyramid is better than the normal Bloom's Pyramid, with creating, evaluating and analyzing at the top. Knowing and Understanding could be achieved by active or passive learning skills. However, Analyzing, Synthesizing and Evaluating could only be done by active learning. Starting with the knowledge base, the cognitive behavior of understanding could be either actively or passively by appreciating the concepts or ideas generated; whereas Application, Analysis, Synthesis and Evaluation, namely, adapting, identifying, consolidating and assessing need necessarily to be active.

Limitations and Criticism of the Bloom's Taxonomy

- Since Bloom's theory, things have drastically changed, and constructivism, meta-cognitive skills and self regulated learning, necessity of

Bloom's Taxonomy for course design

Modified by Anton Tolman, Ph.D. Based on Anderson, L. W., & Krathwohl, D. R. (Eds.). (2001). A taxonomy for learning, teaching and assessing: A revision of Bloom's Taxonomy of educational objectives: Complete edition, New York : Longman and the original: Bloom B. S. (Ed). (1956). *Taxonomy of Educational Objectives, Handbook I: The Cognitive Domain.* New York: David McKay Co Inc.

being responsible for the learning process have all changed the entire current day scene ; taxonomy needs to be approached in a newer way

• Rigid category of hierarchy was later to be adjusted and certain overlapping needed as one can learn independently, and simultaneously not following the rigid paths of dependency on one or the other

• Not possible for students to compare the new information along with the old ones with cognitive processes and hence not participate in an active way in the learning processes

• Bloom's Taxonomy is almost half a century old, and at that time {knowledge, comprehension, application, analysis, synthesis, and evaluation – cognitive thinking} were not fully theoretically examined or well researched

• Having almost 19 sub categories, it becomes a complex structure, though it is an excellent handy tool, affording the teacher to develop a good lesson plan, but rather complicated to employ practically

In the absence of an effective and compact taxonomy, Bloom's Taxonomy is a welcome tool, nevertheless, needs to be improved for the newer demands and developments, all over globally. The Revised Bloom's Taxonomy with several modifications is continuing to be used globally across several countries. In the case of some of the Higher Educational Institutions, teaching and learning practices have found some difficulties at the undergraduate levels at stages L5 and L6 – Synthesis and Evaluation. Most colleges and universities are able to be comfortable up to L4 {Knowing, Understanding, Application and Analysis}; beyond which L5 and L6 in practice {Synthesis and Evaluation} seems to be for some subjects and programs, out of reach of the *average student* Diaspora.

Aftermath of the Pandemic

Bloom's taxonomy is no doubt still the preferred route for imparting higher order knowledge, of course, with a little change. With the various pandemics still looming over several areas globally, the blended teaching learning practices are bound to stay. One of the advantages of the On-line or E-learning could be that the education could be reached to several millions globally at a cheaper cost, so that the lower strata of the Diasporas could benefit economically.

During the last few pandemic years, psychologists, teachers and academicians all over the world were planning different versions of lesson

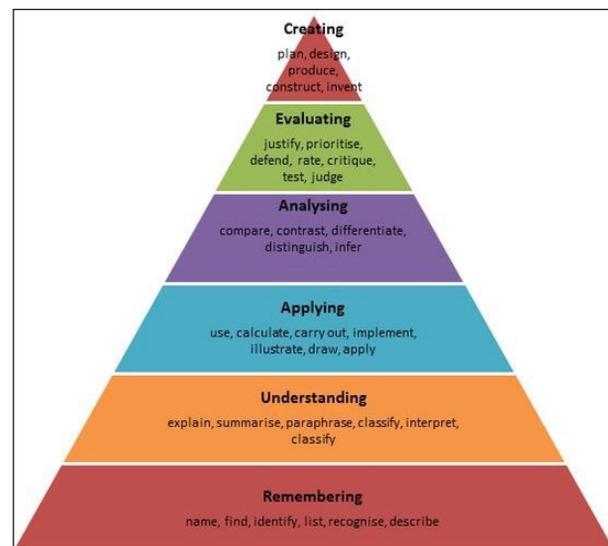Fig. 2 Anton Tolman's Original Version of Bloom's Taxonomy

Fig. 3 Modified Version of Bloom's Taxonomy {Courtesy Tolman, A O {2021} *Graphic of Bloom's Taxonomy*}
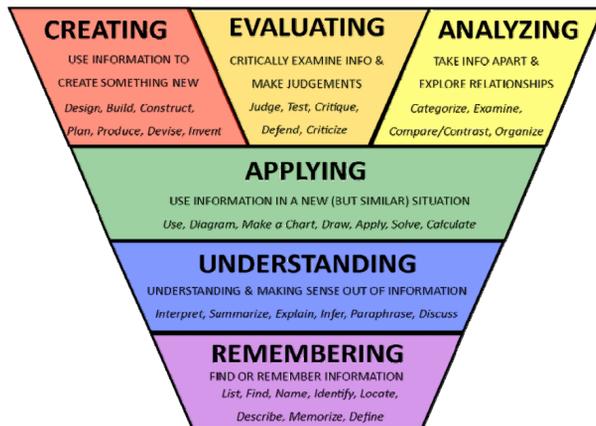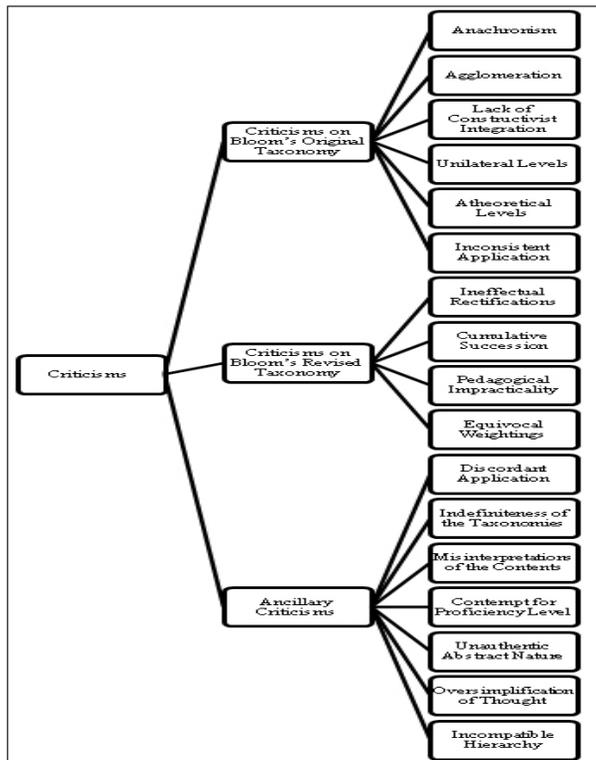

Fig. 4 A Critical Appraisal of Bloom's Taxonomy {Seyyed Mohammad Ali Soozandehfar & Mohammad Reza Adeli}

delivery; leading to the ultimate 'blended learning" methods. Bloom's Taxonomy did come in handy along with a variety of methods enunciated by scores of others. Some of them, David Merill's **e³** {*effective, efficient, engaging*}, the PICRAT Model of Royce Kimmons et.al and a host of others advocating various blended learning techniques; seem to give some thought provoking ideas. Educators have explored several opportunities to identify several types of blended learning practices, which could provide a lasting and true value for the student community. In order to create a long lasting learning habit amongst the students, efforts were made to enable them to engage themselves in interesting time frames to develop knowledge and finally overcome fatigue and disinterest in the courses being pursued.

A rather critical analysis of Bloom's Taxonomy was made introducing a large number of changes. With all these subtleties, in practice to incorporate all the criticisms would eventually totally distort the original concept of Bloom, enabling the student to overcome fatigue and disinterest!

Some Varied Interpretations of Bloom's Taxonomy

The revised version of the Bloom's Taxonomy is definitely more complicated than the original. Several scholars have attributed Remembering has basic skills, the Analyzing, Creating and Evaluating being categorized as *critical thinking skills*

Conclusions

Having had various schools of thought on handling the student community to learn and grasp easily the theories and global phenomena to keep them fully engaged during the instructional hours, particularly in the early learning stages, it would be clear that the modern systems need to be effective and efficient. Even after several modifications, changes and experiments, Bloom's Taxonomy is still being used widely in several countries. With the pandemic / post pandemic situations, while some nations are still coming out of their problems; Bloom's Taxonomy with its various modifications is bound to stay. With the advent of technological developments all over, blended learning models are coming in, creating newer trends in education both at the K-12 and other higher stages of learning. The ultimate aim of all these processes is to encourage the student to acquire a reasonable interest in the programs of study, inculcate in the student an understanding of the basis of critical thinking and analyses primarily in college programs and now being introduced in the K-12 classes; and in recent times being extended mostly to the higher stages of learning of the STEM programs.

Acknowledgement

Intertwining Bloom's Taxonomy and Six Thinking Hats in Online Class Environment to Augment Student Engagement and Cognitive Gain

Rupali Ahluwalia*, Nidhi Khurana**, Taranpreet Kaur Saluja*** and Vaishnavi Naghat****

The Corona Virus Pandemic not only had an impact on human life and health care system but cast its effect on educational systems all over the world. Social Distancing was made a priority which led to shutting down of schools and colleges paving way for an era of digital learning. Majority of the classes were held online which saw that learning was not happening in the same way as in campus classes. Online classes served as the only option to continue learning and had advantages as well as challenges. The teachers or facilitators would certainly make their efforts to involve their students and keep them best engaged by incorporating active learning methods, but the online scenario of classes did present its limitations. In online classes active learning techniques were used by many teachers to make the classes more students centric and promote student engagement. Methods like discussions, breakout rooms, brainstorming, think pair share and many more are being used. It is seen that these techniques certainly break the monotony of the classes but due to lack of in person interaction often create conflicting situations. The required distinction of separating emotions from logic is also a challenge. There is also a possibility that many students do not participate and are not heard as these online active learning techniques lack systematic and parallel thinking approaches. The problem is often magnified in an online scenario. The study presents how this gap can be filled by using Six thinking Hats (de Bono, 1985) as an active learning technique particularly in online classes as it offers a simple systematic parallel thinking approach. The other key challenge in online teaching scenario is content delivery and cognitive gain of the learners. Bloom's taxonomy of teaching and learning emerged to be a very powerful tool to surmount this challenge. The study presents a unique Model, which intertwines Bloom Taxonomy and Six thinking hats in online class sessions to gauge their impact on lower order thinking skills and higher order thinking skills. The significance of the study is long lasting as online and hybrid classes are implemented by many world class institutions even after the pandemic.

This research interweaves Revised Bloom's Taxonomy and Bloom's taxonomy Wedge model with six thinking hats approach to examine and evaluate student engagement and the ability of students to understand and answer Higher Order Thinking Skills and Lower Order Thinking Skills based questions in online classes. This study was conducted on six groups of students pursuing Under graduate course of Bachelors of Commerce (Honours) in St. Aloysius College Jabalpur, Madhya Pradesh India. Each group comprised of ten students. Two problem solving sessions, PRE-TEST and POST-TEST were conducted by the teacher through online mode. The teacher first used revised bloom's taxonomy as a framework for the online class and shared all the relevant information about the topic that was 'Corporate Social Responsibility'. Revised Bloom's taxonomy has a narrow peak at the top so the teacher focused more on remembering, understanding and application of the topic than to analyse, evaluate and create. Next questions were formulated for all the groups wherein the first three questions were based on lower order thinking skills focusing on lower levels of Revised Bloom's Taxonomy (remember, understand, apply) respectively while the last three were higher order thinking skills questions constructed on the basis of the Top three levels of Bloom's Taxonomy (analyse, evaluate, create). To induce student engagement Six thinking Hats approached was used and the Six questions were mapped, with each question being assigned a specific Hat. Sequence of Hats used was: White, Red, Yellow, Black, Blue, Green. The students were told to wear a particular hat at the same time to solve each level of questions while the teacher wore blue hat all the

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time to set the thinking task and direct the flow of the session. Following this for the same topic and with the same set of students the approach of Wedge shape of the Bloom's Taxonomy was implemented. As advocated, while using the Wedge approach of the Bloom's Taxonomy the students were given more opportunity and time to cognitive domains of analyse, evaluate and create than to remember, understand and apply. By utilizing all the Six Thinking Hats, adapting from De Bono's Six Thinking Hats Technique the student groups answered LOTSs and HOTs proposed to them. By wearing different colour of hats, the students understood different perspectives and were able to think critically according to the respective role of the hats(Nie & Aziz, 2019). To measure student performance Ninety minutes problem solving sessions were conducted as stated above Pre-Test and Post-Test. The Pre-test was conducted taking 2001 Revised Bloom's Taxonomy as the base and Post test was conducted taking Bloom's Taxonomy Wedge Model into consideration. The distinguishing feature was the time element which has been elaborated in the data analysis section of the study. The answers to LOTs and HOTs were used to measure the outcome by assigning marks. Thus, this study is significant to provide a proper technique to all six groups of students to enhance their critical thinking skills, creativity and their ability to answer HOTs questions. This paper attempts to seek findings on the use of De Bono's Six Thinking Hats with Bloom's Taxonomy. The Research has been carried out with scrupulous attention to detail. Data was gathered through primary method by conducting Pre-Test and Post Test. The tools used to collect data were: Marks/Grades of Pre-Test and Post Test, classroom observation by the teacher and group interaction.

Data Analysis

1.1 Mapping Questions, levels of Cognitive gain and Six thinking hats

The test sessions comprised of Six questions which represents Six different levels of Bloom's Taxonomy as well as Six different coloured hats. Both the ninety minutes sessions had a specified period of time to answer each question. Although both the sessions were of ninety minutes the time allotted for each question was different. In the Pre-test Session which was conducted taking Revised Bloom's Taxonomy as base gave more time was allotted to answer Lower Order Thinking Skills Questions compared to Higher Order Thinking Skills Questions. While the second teaching session focused on Bloom's Taxonomy Wedge Model which gave more time to think and respond to Higher Order Thinking Skills Questions than Lower Order Thinking Skills Questions. The students were assessed out of 30 marks in both the test sessions. Each question carried 5 marks and the results were analysed on the basis of average marks scored by the groups in Lower Order Thinking Skills Questions and Higher Order Thinking Skills Questions in both the test sessions.

Table 1 represents the sequential order of hats and the time allotted for each level of question in the Pre-Test and Post-Test.

4.3 Students' Responses

Questions comprised of both open-ended as well as closed-ended questions. The following questions were investigated:

Figure 1. Mapping Questions, Levels of Cognitive gain and Six Thinking Hats
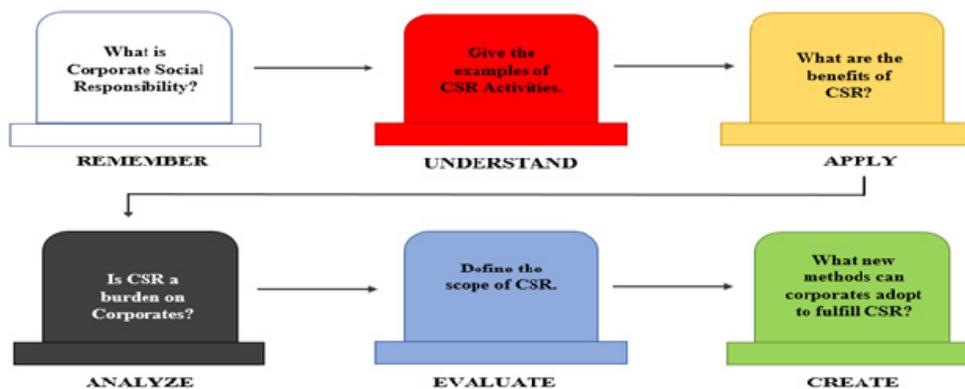
Source: Authors' Own

Table 1 Cognitive Levels and Hats Assigned

Question Number	Bloom's Taxonomy	Six Thinking Hats	Time Allocated	
			Pre-Test	Post Test
1	Remember	White	15 minutes	7 minutes
2	Understand	Red	12 minutes	8 minutes
3	Apply	Yellow	10 minutes	9 minutes
4	Analyse	Black	9 minutes	11 minutes
5	Evaluate	Blue	8 minutes	12 minutes
6	Create	Green	6 minutes	13 minutes

Figure 2: Illustrative Model: Time Element in Pre-Test and Post-Test in Pyramid and Wedge
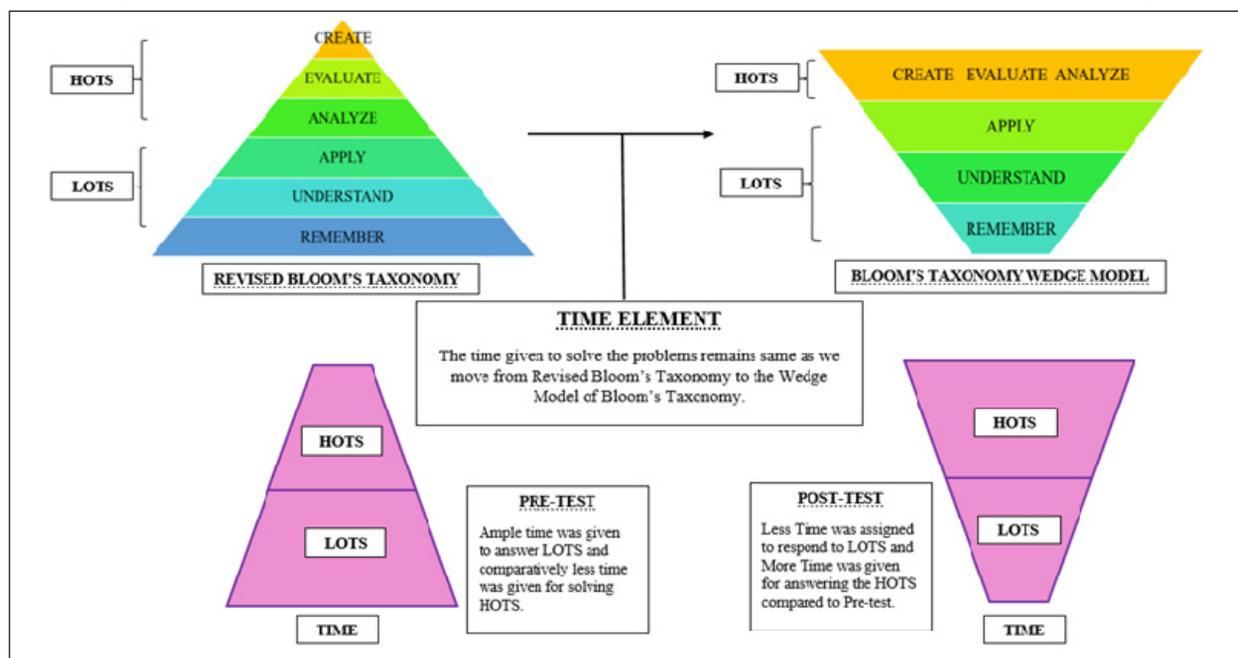
Source: Authors' Own

Question 1) What is Corporate Social Responsibility? List down its dimensions.

For the first question, all the groups were told to wear white hat. White hat represents the facts and information which also correlates with the remembrance tier of Revised Bloom's Taxonomy Following answers were noted along with their respective marks.

Question 2) Give the examples of CSR Activities.

Second Question was based on the succeeding level of Bloom's Taxonomy i.e., UNDERSTAND. The students were directed to wear Red Hat. This question required students to provide their personal opinion and express their views by giving examples of CSR activities. It was an open-ended question. This was done to check whether they were able to comprehend the topic. In the first session, they were given 12 minutes time and in the other, 8 minutes was allotted.

Question 3) What are the benefits of CSR?

The Third Question was parallel to third level of Revised Bloom's Taxonomy which is APPLY. In this level, students wore Yellow Hat to propose positive aspects of CSR. It was seen that each group proposed innovative benefits and had an optimistic outlook towards the topic thus creating an interactive and positive environment in the classroom. The students were allotted 10 minutes to answer the question in Pre-Test session while 9 minutes in Post-Test session.

In the following questions, students were required to think critically as teacher presented them with higher order thinking skill-based questions. These were all open-ended questions.

Corporate Social Responsibility

Groups	Pre-Test Answers	Post-Test Answers	Pre-Test Marks	Post-Test Marks
1	CSR is a concept in which organizations consider the interest of the society. Four dimensions of CSR are economic responsibility, legal responsibility, ethical responsibility and philanthropic responsibility	CSR is a self-regulating model. It is a model in which businesses try to enhance the society and environment by fulfilling their responsibility towards them and acting in concerned direction. It has four dimensions: economic responsibility, legal responsibility, ethical responsibility, philanthropic responsibility.	4	
2	CSR refers to the activities performed by the corporates with the intension of having a positive impact on the society. Philanthropic responsibility, legal responsibility, ethical responsibility and economic responsibility are its four dimensions.	CSR is concerned with doing things above and beyond the limits of the law in such a manner that it benefits the members of the society. Responsibilities such as legal, ethical, economic and philanthropic are its four important dimensions	4	4
3	CSR is a model which helps the corporates to look at the world with optimism and perform activities which helps towards the growth and development of the society. Dimensions of CSR can be categorized into four responsibilities: legal, ethical, economic, philanthropic.	CSR is criteria that corporates adopt in such a manner so that they are socially accountable to its shareholders, consumers and the world. Legal, ethical, economic and philanthropic are its dimensions.	5	4
4	CSR is a model in which a business has an obligation to do good for the members of the society. Economic responsibility, ethical responsibility, legal responsibility, philanthropic responsibility are its dimensions.	CSR helps in producing a positive impact on the world by the corporations as they perform activities for the development of their employees, customers, suppliers, stakeholders and the environment. The four-dimensional responsibilities are economic, legal, ethical and philanthropic	3.5	3.5
5	CSR is the responsibility of the corporates towards the society. Ethical, legal, economic and philanthropic are its four-dimensional responsibilities.	CSR is an important concept instilled in the corporate world in which all the companies perform activities such as charity or donation which can benefit the society as a whole. Four dimensions of CSR are termed as economic, legal, ethical and philanthropic responsibilities.	3	3.5
6	CSR is a concept in which a company needs to act in a manner that it does not hurt the sentiments of the people in the society. Its dimensions are: economic responsibility, ethical responsibility, legal responsibility, philanthropic responsibility	CSR is a concept in which organizations consider their customers, employees, shareholders, community & the environment so that the operations of the organization do not hamper them. Dimensions of CSR are: economic, legal, ethical and philanthropic.	3.5	4

CSR Activities

Groups	Pre-Test Answers	Post-test Answers	Pre-test Marks	Post-test Marks
1	Construction of public libraries. Construction of houses and hostels for women.	Undertaking construction activities for the benefit of public which will also lead to economic development of the society. Example – Construction of houses which will provide better standard of living.	3	4
2	Creation, maintenance and operation of old age homes and day care centres.	Creation, maintenance and operation of old age homes and day care centres and regulate their working in order to provide better living conditions.	3.5	4
3	Setting up educational institutions with minimum or no fees for the weaker sections of the society	Establishing educational institutions which are funded through government expenditure or charity rather than charging tuition fees. These facilities should be promoted for the weaker sections of the society.	3	4
4	Conservation of natural resources and pollution control.	Conservation of natural resources like Coal and Petroleum. Conservation means optimum utilisation of these resources and avoiding any possible wastage.	3	3
5	Adopting and promoting sustainable practices	Sustainability considers that resources are finite and proper measures should be used cautiously with the aim of protecting them for future generations.	3	3.5
6	Performing charitable activities and volunteering like cleaning a local park	Performing charitable activities. These activities must provide benefit to public. These activities include establishing and operating animal shelters and volunteer fire unit.	3	4

Benefits of CSR

Groups	Pre-Test Answers	Post-test Answers	Pre-test Marks	Post-test Marks
1	It helps to increase employee's loyalty and retention	CSR helps in maintaining employee's loyalty towards the organisation and therefore provides stability in employment.	3	3.5
2	It helps to increase consumers loyalty	It helps to increase consumer satisfaction level and also helps in capturing the market.	2.5	3
3	Helps to build goodwill of the company	It reduces regulatory oversight and displays a good image of the company.	2	3.5
4	It enhances productivity and product or service quality	Ethical responsibility towards customers leads to production of quality products and services	2.5	3.5
5	It leads to ease in accessing capital	Performing CSR activities helps the company to accumulate funds form various sources for the growth and expansion of the company.	2.5	3
6	It helps in generating higher profit.	It increases product safety and decreases the liability of the company thus leading to higher profits.	2.5	3.5

Question 4) Is CSR a burden on Corporates?

Forth question was to check whether students were able to ANALYSE what was taught to them by the Teacher. The Teacher guided them to wear Black hat and asked them to present their thoughts on whether CSR is a burden on Corporates or not. This led students to critically examine all the aspects of the question. Students were allotted 9 minutes in the Pre-Test session and 11 minutes in Post-Test session

Question 5) Present the Scope of CSR.

Next Higher Order Thinking skill question required students to manage their thinking process which is an important feature of Direction. For this Blue Thinking Hat was implemented by the Teacher. EVALUATE means to judge the importance of something. 8 minutes was allotted to them in the Pre-Test and 12 minutes in the Post-Test.

Question 6) What New Methods can Corporate Adopt to fulfil Corporate Social Responsibility?

The last level of question uses CREATIVITY which is represented by the Green Hat. Green Hat symbolizes creation of new idea which is required by the question put forth by the teacher that was, what all new methods can be adopted by the corporates as CSR Activities? For this level, 6 minutes was given by the teacher in the Pre-Test and 13 minutes in the Post-Test.

The table 2 displays the average marks scored by all the groups in PRE-TEST in LOTS and HOTS. It compares the average marks scored by all six groups in both the problem-solving sessions. Implementing Six Thinking Hats along with Revised Bloom's taxonomy in the Pre-test displayed that groups developed a strong foundation for lower order thinking skills but performed poorly while solving higher order thinking questions. Total average marks scored by all the groups in LOTS in Pre-Test was 18.65, whereas in HOTS total average marks were only 7.14.

It was observed in Post- Test results that when they were given more time and opportunity to work on the higher order thinking skills questions it was observed that the groups gave logical and more relevant answers in the post test. Similarly, they

CSR a Burden on Corporate

Groups	Pre-Test Answers	Post-test Answers	Pre-test Marks	Post-test Marks
1	Increases cost	It is not an opportunity for small businesses as it leads to incurring additional costs and hence is considered as a burden on corporates.	2	3
2	It affects their budget.	Indulging in the charitable activities the company faces imbalance in their budget which leads to increase in budgetary cost and inappropriate allocation of resources.	1	3
3	Dissatisfaction among shareholders.	This leads to dissatisfaction among shareholders as they receive lower dividends because a significant part of the profit is utilized in undertaking CSR activities.	2	3.5
4	Affects consumer's base.	Once organizations begin to invest in CSR activities it becomes an obligation as they need to maintain the same reputation in the eyes of public. If they are unable to meet these obligations their customers base gets affected.	2	4
5	Organization goals are not achieved.	CSR hampers the performance of the organization as they focus more on philanthropic activities, which sometimes tend to deviate them from their objective.	1.5	4
6	Failed to answer this question.	CSR activities may be perceived as a Public Relation stunt if it fails to generate desired outcomes. To overcome this situation, the companies have to give special attention to public responses which is a burden on them.	0	4

Scope of CSR

Groups	Pre-Test Answers	Post-test Answers	Pre-test Marks	Post-test Marks
1	Performing philanthropic activities.	The scope of CSR extends but is not limited to: Philanthropy which includes donations and charity. It also includes volunteering and performing Social and Ethical responsibilities towards the consumers and suppliers.	2	4
2	Developing healthy working environment for employees.	The scope of CSR has widened and provides a healthy and competitive working environment to the employees and also facilitating workshops for their personality and skill development.	2	4
3	Protection of the environment.	The major area covered under scope of CSR is protection of the environment. It includes the methods to control pollution (noise, water, land and air pollution) and taking steps to compensate and make recovery for the damages done by the companies.	1	4
4	Benefits for employees.	CSR provides opportunities for employees to perform their best and also offers them a chance to deal with new technologies. Thus, facilitating their growth and development.	1	4
5	Exercising fair trade.	The scope of CSR includes promotion of healthy and fair-trade practices, thus improving the quality of life of the workforce.	1	3.5
6	Use of resources.	Making optimum utilization of energy and avoiding any sort of wastage.	1	3.5

New Methods Adopted by the Corporate

Groups	Pre-Test Answers	Post-test Answers	Pre-test Marks	Post-test Marks
1	Failed to answer.	Use of biodegradable plastic for packaging to reduce pollution.	0	3.5
2	Providing courses to students.	Providing free online courses and internships to fresher's to develop their skills which will help them to prosper in future.	1.5	4
3	Spread awareness to consumers.	To spread awareness about social issues and current events through advertisements and campaigns as consumers favour those companies who take an active part in prevailing issues.	1	4.5
4	Providing information about particular streams.	Establishment and maintenance of memorials, auditoriums and museums to develop interest in people towards a particular field.	1	3.5
5	Producing environmentally friendly product.	Production of environmentally friendly products and discouraging the use of products which are hazardous for the consumers as well as the environment.	1	4
6	Conserving energy.	Setting up of renewable energy plants. For example: installation of solar panels and wind mills.	1	4

Table 2. Average Marks Scored by all the Groups in PRE-TEST

Questions	Group 1	Group 2	Group 3	Group 4	Group 5	Group 6	Total of Average
LOTS	3.33	3.33	3.33	2.83	2.83	3	**18.65**
HOTS	1.33	1.5	1.33	1.16	1.16	0.66	**7.14**

Table 3 Average Marks Scored by all the Groups in POST-TEST

Questions	Group 1	Group 2	Group 3	Group 4	Group 5	Group 6	Total of Average
LOTS	4	3.66	3.83	3.33	3.33	3.83	**21.98**
HOTS	3.5	3.66	4	3.83	3.83	3.83	**22.65**

gave quality answers in LOTS as the Bloom's Wedge Model creates a firm foundation. Total of Average Marks of LOTS in Post-Test was 21.98 whereas in HOTS they scored a total average of 22.65. The Groups performance increased in the Post-Test Session compared to Pre-Test Session in both Lower Order Thinking Skills Questions and Higher Order Thinking Skills Questions.

Discussion and Results

It is evident that in online classes both student engagement and their cognitive gain need specific attention. The study works on areas which help address these gaps. In the online scenario, it was necessary to look at more active learning techniques as the routine active learning techniques used in offline classes did not provide the same level of student engagement. Premised on this, our research incorporated Six Thinking Hats and found it to be an Active Learning Technique promoting student's engagement in online setup. Through this Research, it was observed that levels of cognitive gain can be escalated as we move from Revised Bloom's Taxonomy Model to Bloom's Wedge Model. The narrow peak of the Revised Bloom's taxonomy when replaced with the broad wedge led to remarkable improvement in students thinking process and their ability to answer questions based on higher order thinking skills. As we moved upwards from lower order thinking skill question towards higher order thinking skill question using Six Thinking Hats students' participation, interpersonal skills and critical thinking improved. After integrating this technique, the marks of the students also improved while answering questions based on Higher Order Thinking Skills in the Post-Test. By using Six Thinking Hats method the intellect, experience and knowledge of all the members of the groups was utilized fully. This was possible because of the concept of parallel thinking. Six Thinking Hats is an effective online active learning technique as it enables students to think in six different directions and encourages active engagement in online platform. It also increases the productivity of students, inculcates positive team spirit and coordination. It was observed by the Teacher that when Six Thinking Hats was applied as a new online active learning technique, all the students actively participated in the discussion by giving out of the box answers. Six Thinking Hats also proved to be a time saving technique as it provided a systematic thinking approach to student's by making them think in one particular direction at a time. In the process of spontaneous discussion, somethings can inflict some points that may result in conflicts. Six thinking Hats helped in avoiding such circumstances by infusing parallel thinking. It also helped to overcome the obstacle of confusion, by following the principle of Six Thinking Hats which says 'one thing at a time'. It was observed that all groups scored considerable well in LOTS in both the tests but the marks in the pre-test declined gradually while answering HOTS as time was reduced for each succeeding question. It was also observed that Groups scored well in HOTS in Post-test as more focus was given on building their creative and higher thinking skills and this led to construction of new and innovative ideas.

Conclusion

This research explored the impact of interweaving Revised Bloom's Taxonomy and Bloom's taxonomy Wedge model with six thinking hats approach to interrogate and evaluate student engagement and the ability of students to understand and answer Higher Order Thinking Skills and Lower Order Thinking Skills based questions in online classes. It was revealed through findings that Six Thinking Hats promoted an innovative, creative and engaging online active learning environment. The study also presents a model illustrating the opportunity the students are given of different levels

of understanding and the impact of the same on their ability to answer LOTS and HOTS based questions. Student's result improved and their thinking process also elevated as they were directed towards parallel thinking. One of the major challenges in the online environment faced by educators is to sustain student's attention. Six Thinking Hats also helped to surpass this challenge. The findings of this study also shed light on how this technique can be used by educators to augment student engagement, retention and critical thinking ability.

Finally, it was revealed through this study that interweaving Revised Bloom's Taxonomy and Wedge model of Bloom's using Six Thinking Hats as an online active learning technique helps to promote student engagement and escalates cognitive gain.

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Assessment of Gender Differences in Creative Thinking among Students of Professional and Non-professional Courses

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Creative thinking encompasses the capacity to approach tasks in distinctive and original manners, fostering the generation of fresh ideas and offering unique perspectives. Individuals with creativity possess the capacity to innovate solutions and overcome challenges by devising novel approaches. Exploring diversity issues in creative thinking is vital for advancing human endeavours across various fields. Creative thinking is a fascinating area of study that sheds light on the intricate workings of the human mind and its potential for generating new ideas and solutions. Every individual possesses the potential for creativity; the ways in which it manifests vary greatly from person to person. By understanding how factors like gender influence creative thinking, one can create more inclusive environments that foster innovation and progress in science, art, and technology. Although males and females both harbor the capacity for creativity, significant diversity exists due to different factors, including genetics, upbringing, education, environment, and personal experiences.

Creativity can be cultivated through both knowledge and practice, empowering students to excel even in demanding situations. Thus, there is a need to analyse the status of creative thinking in the higher education system with respect to gender to bring positive changes in the curriculum of higher education. The objectives of the study are

1. To assess the creative thinking among students of Professional and Non-professional courses.

2. To assess the creative thinking among male and female students of Professional courses.
   a. To assess the creative thinking among male and female students of M.Ed. course.
   b. To assess the creative thinking among male and female students of MBA course.
   c. To assess the creative thinking among male and female students of MSW course.
   d. To assess the creative thinking among male and female students of MCA course.

3. To assess the creative thinking among male and female students of Non-professional courses.
   a. To assess the creative thinking among male and female students of M.A. (Education) course.
   b. To assess the creative thinking among male and female students of M.A. (Economics) course.
   c. To assess the creative thinking among male and female students of M.A. (Sociology) course.
   d. To assess the creative thinking among male and female students of M.Sc. (Mathematics) course.

The quantitative approach is used for the present study. Survey technique under descriptive method of research is used. Students of Professional and Non-professional courses of all the universities of Lucknow city. Four universities are randomly selected from the list of all the universities in Lucknow city. Thus University of Lucknow, Integral University, Dr. Shakuntla Misra National Rehabilitation University and Babasaheb Bhimrao Ambedkar University were selected. The sample of 185 students of professional course (M.Ed., MBA, MSW, MCA) and 215 students of non-professional course (M.A. Education. M.A. Economics, M.A. Sociology, M.Sc. Mathematics) were randomly selected from these four universities.

In this research paper Torrance Test of Creative Thinking (Verbal, Test Booklet A, 1993) is used. The verbal creative thinking test is based on three dimensions Fluency, Flexibility and Originality which have been assessed in this study through six activities. The scores are obtained by following the instructions from the Manual for Scoring and Interpreting Results. Creative thinking has been

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Table 1: List of Professional Courses along with Number of Male and Female Students

Sl. No.	Professional courses	Male Students	Female Students	Total Students
1.	M.Ed.	17	30	47
2.	MBA	31	16	47
3.	MSW	23	24	47
4.	MCA	28	16	44

Table 2: List of Non-professional Courses along with Number of Male and Female Students

Sl. No.	Non-professional Courses	Male Students	Female Students	Total Students
1.	M.A (Education)	16	37	53
2.	M.A. (Economics)	27	27	54
3.	M.A. (Sociology)	20	31	51
4.	M.Sc. (Mathematics)	18	34	52

assessed based on these scores obtained by the students on the three dimensions of this test.

To compare and interpret level of Creative thinking between male and female students of Professional and Non-professional, the obtained scores are categorised. Categorization has been done for the tool as a whole, as shown in the following Tables:

The obtained data is analysed and the results are presented, as shown in the following Tables:

From Table 4 It can be seen that only 17.3% total students of Professional courses have high level of Creative thinking whereas 14.42% total students of Non-professional courses have high level of Creative thinking. 62.7% of total students of Professional courses have average level of Creative thinking whereas 65.58% of total students of Non-professional courses have average level of Creative thinking. 20% of total students of Professional courses and Non-professional courses have low level of Creative thinking.

It can be seen that only 17.3% total students of Professional courses have high level of Creative thinking out of which 8.12% female students have high level of Creative thinking whereas 9.19% male students have high level of Creative thinking, 62.7% of total students of Professional courses have average level of Creative thinking out of which 29.19% female students have average level of Creative thinking whereas 33.51% male students have average level of Creative thinking,

Table 3: Categorization of Scores for Creative Thinking

S.N.	Mean	S.D.	Creative thinking scores	Interpretation
1	49.97	9.94	40 & below (M – S. D. and Below)	Low level
2			41 to 59 (in Between M+S. D. and M – S. D)	Average level
3			60 and Above (M+S. D. and Above)	High level

Table 4: Level of Creative Thinking in terms of Percentage in Students of Professional and Non-Professional Course

Level of Creative thinking	Male		Female		Total		Male		Female		Total	
	N	Percentage	N	Percentage	N	Percentage	N	Percentage	N	Percentage	N	Percentage
High Level	17	9.19	15	8.12	32	17.3	12	5.58	19	8.84	31	14.42
Average Level	62	33.51	54	29.19	116	62.7	53	24.65	88	40.93	141	65.58
Low Level	20	10.81	17	9.19	37	20	16	7.44	27	12.56	43	20

20% of total students of Professional courses have low level of Creative thinking out of which 9.19% female students have low level of Creative thinking whereas 10.81% male students have low level of Creative thinking.

It can be seen that only 14.42% total students of Non-professional courses have high level of Creative thinking out of which 8.84% female students have high level of Creative thinking whereas 5.58% male students have high level of Creative thinking, 65.58% of total students of Non-professional courses have average level of Creative thinking out of which 40.93% female students have average level of Creative thinking whereas 24.65% male students have average level of Creative thinking, 20% of total students of Non-professional courses have low level of Creative thinking out of which 12.56% female students have low level of Creative thinking whereas 7.44% male students have low level of Creative thinking.

From Table 5 it can be seen that only 17.02 % of total students of M.Ed. course have high level of Creative thinking out of which 10.64% female students have high level of Creative thinking whereas 6.38 % male students have high level of Creative thinking. 63.83% of total students have average level of Creative thinking out of which 40.42% female students have average level of Creative thinking whereas 23.41 % male students have average level of Creative thinking. 19.15 % of total students have low level of Creative thinking out of which 12.77 % female students have low level of Creative thinking whereas 6.38 % male students have low level of Creative thinking.

From Table 6 it can be seen that 19.15% of total students of MBA course have low level of Creative thinking out of which 6.38% female students have low level of Creative thinking whereas 12.77% male students have low level of Creative thinking. 63.83% of total students of MBA course have average level of Creative thinking out of which 21.28% female students have average level of Creative thinking whereas 42.55% male students have average level of Creative thinking. 17.02% of total students have high level of Creative thinking out of which 6.38% female students have high level of Creative thinking whereas 10.64 % male students have high level of Creative thinking.

From Table 7, it can be seen that 61.7% of total students of M. S.W. course have average level of Creative thinking out of which 29.79% male students have average level of Creative thinking whereas 31.91 % female students have average level of Creative thinking. 17.02% of total students have high level of Creative thinking out of which 8.51% male students have high level of Creative thinking whereas 8.51% female students have high level of Creative thinking. 21.28% of total students have low level of Creative thinking out of which 10.64% male students have low level of Creative thinking whereas 10.64% female students have low level of Creative thinking.

Table 5: Level of Creative Thinking in Terms of percentage of M.Ed. Students, Gender-wise

Level of Creative Thinking	Female		Male		Total	
	N	Percentage	N	Percentage	N	Percentage
High Level	5	10.64	3	6.38	8	17.02
Average Level	19	40.42	11	23.41	30	63.83
Low Level	6	12.77	3	6.38	9	19.15
Total	30	63.83	17	36.17	47	100

Table 6: Level of Creative Thinking in Terms of Percentage of MBA Students, Gender-wise

Level of Creative Thinking	Female		Male		Total	
	N	Percentage	N	Percentage	N	Percentage
High Level	3	6.38	5	10.64	8	17.02
Average Level	10	21.28	20	42.55	30	63.83
Low Level	3	6.38	6	12.77	9	19.15
Total	16	34.04	31	65.96	47	100

Table 7: Level of Creative Thinking in Terms of Percentage of MSW Students, gender-wise

Level of Creative Thinking	Female		Male		Total	
	N	Percentage	N	Percentage	N	Percentage
High Level	4	8.51	4	8.51	8	17.02
Average Level	15	31.91	14	29.79	29	61.7
Low Level	5	10.64	5	10.64	10	21.28
Total	24	51.06	23	48.94	47	100

From Table 8 it can be seen that only 18.18 % of total students of MCA course have high level of Creative thinking out of which 11.36% male students have high level of Creative thinking whereas 6.82% female students have high level of Creative thinking. 61.36% of total students have average level of Creative thinking out of which 38.64% male students have average level of Creative thinking whereas 22.72 % female students have average level of Creative thinking. 20.45% of total students have low level of Creative thinking out of which 13.64% male students have low level of Creative thinking whereas 6.82 % female students have low level of Creative thinking.

From Table 9 it can be seen that 66.04% of total students of M. A.(Education) course have average level of Creative thinking out of which 45.28% female students have average level of Creative thinking whereas 20.76 % male students have average level of Creative thinking. 15.09% of total students have high level of Creative thinking out of which 11.32% female students have high level of Creative thinking whereas 3.77 % male students have high level of Creative thinking. 18.87% of total students have low level of Creative thinking out of which 13.21% female students have low level of Creative thinking whereas 10 % male students have low level of Creative thinking.

From Table 10 it can be seen that only 13.56% of total students of M.A. (Economics) course have high level of Creative thinking out of which 6.78% male students have high level of Creative

Table 8: Level of Creative Thinking in Terms of Percentage of MCA Students, Gender-wise

Level of Creative Thinking	Female		Male		Total	
	N	Percentage	N	Percentage	N	Percentage
High Level	3	6.82	5	11.36	8	18.18
Average Level	10	22.72	17	38.64	27	61.36
Low Level	3	6.82	6	13.64	9	20.45
Total	16	36.36	28	63.64	44	100

Table 9: Level of Creative Thinking in Terms of Percentage of M.A. (Education) Students, gender-wise

Level of Creative Thinking	Female		Male		Total	
	N	Percentage	N	Percentage	N	Percentage
High Level	6	11.32	2	3.77	8	15.09
Average Level	24	45.28	11	20.76	35	66.04
Low Level	7	13.21	3	5.66	10	18.87
Total	37	69.81	16	30.19	53	100

Table 10: Level of Creative Thinking in Terms of Percentage of M.A. (Economics) Students, Gender-wise

Level of Creative Thinking	Female		Male		Total	
	N	Percentage	N	Percentage	N	Percentage
High Level	4	6.78	4	6.78	8	13.56
Average Level	21	35.6	17	28.81	38	64.41
Low Level	7	11.86	6	10.17	13	22.03
Total	32	54.24	27	45.76	59	100

thinking whereas 6.78 % female students have high level of Creative thinking. 64.41% of total students have average level of Creative thinking out of which 28.81% male students have average level of Creative thinking whereas 35.6% female students have average level of Creative thinking. 22.03% of total students of MBA course have low level of Creative thinking out of which 10.17% male students have low level of Creative thinking whereas 11.86% female students have low level of Creative thinking.

From Table 11 it can be seen that 19.61% of total students of M.A. (Sociology) course have low level of Creative thinking out of which 7.85% male students have low level of Creative thinking whereas 11.76% female students have low level of Creative thinking. 66.66% of total students have average level of Creative thinking out of which 25.49% male students have average level of Creative thinking whereas 41.17% female students have average level of Creative thinking. 13.73% of total students have high level of Creative thinking out of which 5.88% male students have high level of Creative thinking whereas 7.85% female students have high level of Creative thinking.

From Table 12 it can be seen that 65.38% of total students of M. Sc.(Mathematics) course have average level of Creative thinking out of which 42.31% female students have average level of Creative thinking whereas 23.07 % male students have average level of Creative thinking. 15.39% of total students have high level of Creative thinking out of which 9.62% female students have high level of Creative thinking whereas 5.77% male students have high level of Creative thinking. 19.23% of total students have low level of Creative thinking out of which 5.77% male students showed low level of Creative thinking whereas 13.46% female students showed low level of Creative thinking.

Conclusion

- Most of the male and female students in Professional courses had an average level of creative thinking.

- Most of the male and female students in Non-professional courses had an average level of creative thinking.

- Higher number of male students in Professional courses exhibited high level of Creative thinking compared to their counterparts, except in M.Ed. and MSW, where the percentage of both male and female students with high level of creative thinking is equal.

- Higher number of female students in Non-professional courses exhibited high level of Creative thinking compared to their counterparts, except in M.A.(Economics), where the percentage of both male and female students with high level of creative thinking is equal.

Table 11: Level of Creative Thinking in Terms of Percentage of M.A. (Sociology) Students, Kender-wise

Level of Creative Thinking	Female		Male		Total	
	N	Percentage	N	Percentage	N	Percentage
High Level	4	7.85	3	5.88	7	13.73
Average Level	21	41.17	13	25.49	34	66.66
Low Level	6	11.76	4	7.85	10	19.61
Total	31	60.78	20	39.22	51	100

Table 12: Level of Creative Thinking in Terms of Percentage of M.Sc. (Mathematics) Students, Gender-wise

Level of Creative Thinking	Female		Male		Total	
	N	Percentage	N	Percentage	N	Percentage
High Level	5	9.62	3	5.77	8	15.39
Average Level	22	42.31	12	23.07	34	65.38
Low Level	7	13.46	3	5.77	10	19.23
Total	34	65.39	18	34.61	52	100

Discussion

The present study aimed to assess the gender differences in creative thinking among students of Professional and Non-professional courses. It was found that most of the male and female students of Professional and Non-professional courses had an average level of creative thinking. This finding suggests that higher institutes must ensure to promote creativity through curriculum, different teaching methods and assessment. According to NEP 2020, "Given the 21st century requirements, quality higher education must aim to develop good, thoughtful, well-rounded, and creative individuals." (p.33). It is emphasised in it, that for students to become successful and productive human being, scientific temper, critical and creative thinking needs to be inculcated.

Other results showed that higher number of male students of Professional courses exhibited high level of Creative thinking compared to their counterparts, except in M.Ed. and MSW (where the percentage of both male and female students with high level of creative thinking wass equal). This result of this study support the findings of the previous researches suggesting that girls' creativity is diminished in competitive environment while boys' creativity is intensified in competitive environment (Conti, Collins, and Picariello 2001). It was found that males perform better when they are instructed to be creative in anything whereas females performs slightly poorer in comparison to males in creativity inducing environment (Kartz & Poag,1979). Since childhood, societal norms often steer women toward conformity, discourage risk-taking, and are perceived to have less entrepreneurial aptitude (Wai, 2013), which could potentially explain the observed outcomes, as Professional courses foster a competitive and creative environment.

But in Non- professional courses higher number of female students exhibited high level of Creative thinking compared to their counterparts except in M.A. Economics (where the percentage of both male and female students with high level of creative thinking was equal). It was found that females studying in girls high school scored significantly better on creative thinking as compared to females studying in co-ed high school, which suggests that environmental effects on females performance on creative thinking (Mcvey, 2003). In non-professional courses number of male students is less than number of female students, also their attendance is very short and the class environment is not very competitive but focused on academics, so this could be the reason for the above finding.

It can be argued that considering gender differences in creativity as predominantly stemming from diverse environments and motivation would provide the most comprehensive synthesis for this study.

Significance of the Research

- This study provides insights into the levels of creative thinking among both professional and non-professional higher education students, which may assist teachers in identifying students' actual creative thinking skills and subsequently aiding them in enhancing this skill.

- This study proposes that educators in higher education should explore both internal and external barriers to creativity among female students of professional courses.

- This study suggests that higher education teachers should encourage male students OF Non-professional courses to attend classes regularly and employ various pedagogical techniques to make the teaching learning process more creative. This approach could stimulate discussion and interaction in class and enhance their critical thinking skills

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National Credit Framework at a Glance: Why, What and How?

Minati Mohanty*

The National Credit Framework (NCrF) has emerged as an enabler in realizing the vision of National Education Policy-2020. The National Policy on Education has envisioned providing relevant education to the world of work, multi-disciplinary education and education to improve quality of life. Education is the basis for human potential, equitable Society and national development. Universal access to quality education is the key to India's Leadership on the globe. Universal high-quality educational opportunities integral with effective skills are the best path for optimizing the rich talents and resources for the good of the individual, the Society, the country and the world. India is the youngest nation in the world with 62% of its population in working groups (15-59 years) and 54% of the total population below 25 years. It requires a chance and challenge to equip the workforce with knowledge and employable skill and provide high-quality educational opportunities and effective skilling. The UN Submit (2015) Agenda for Sustainable Development Goals (SDGs) in transforming the world emphasizes Skill for people across the world because out of 42% of the global youth of the world population 13% are unemployed which can be brought down drastically by skilling the youth. The goal of SDGs of 2030 ensures an inclusive and equitable quality education to promote Lifelong learning opportunities for all by 2030. Therefore it needs to transform the entire education system to support and foster Learning through learner-centric method to achieve the goal of Skill India. Skill training is a complementary and essential part of mainstreaming education as envisaged in NEP-2020. The NEP-20 has envisaged an education system in Indian ethos transforming India in to an equitable and vibrant knowledge Society by providing high quality education to all and thereby making India a global knowledge power.

Introduction

The National Education Policy-2020 has envisaged making education more holistic and effective by integrating general education, vocational education and experiential learning including relevant experiences and proficiency acquired at the professional level. With a view to realize the vision of National Education Policy-2020, the National Credit Framework (NCrF) has developed under the guidance of Shri Dharmendra Pradhan, Hon'ble Minister of Education & Minister of Skill Development & Entrepreneurship in collaboration with the High-Level Committee comprising members from UGC, AICTE, NCVET, NCERT, DHEL, MoE, MSDE, CBSE, NIOS & DGT. The paper intends to make a thread-bare analysis of NCrF through question-answer format to facilitate and create better awareness of the system.

1. *Why does NCrF evolve?*

   The Government of India has evolved a High – Level Committee vide order dated 18th November 2021 to develop a National Credit Accumulation & Transfer Framework for both Vocational and General Education keeping in view the integration of academic and vocational domains of learning ensuring flexibility and mobility between the two.

2. *What is the Composition and Intention of NCrF Committee?*

   Composition:- The Committee is composed of eleven members under the chairmanship of Dr. Nirmaljeet Singh Kalsi, Chairperson, NCVET and Dr. Biswajit Saha, Director (Training & Skill Education) CBSE as Member-Secretary. The other members are--Chairman, CBSE, Addl. Secretary, MSDE, Addl. Secretary, DHE, Addle Secretary, DG, DGT, MSDE, Joint Secretary, DHE, MoE, Secretary, UGC, Chairperson, NIOS, Chairman, AICTE, Director, NCERT.

3. *What are the Terms and References of the NCrF Committee?*

Terms & reference of the High-Level Committee are:

i. Assign credit value to academic &skill course taught at various levels, viz: School education, higher education, skilling Ecosystem, Vocational training & education, Distance/Blended Learning etc.)

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ii. Identify ways of Credit Accumulation for School education, higher education, vocational education & training.

iii. Propose Credit Transfer Model for Vocational & School education & vice –versa, Vocational& Higher education &vice-versa

iv. Establish academic equivalence between Vocational and General Education at all Levels.

v. Develop the unified Credit Framework for integration of Vocational education and training/ skilling into School & Higher education in line with the NEP–2020 to enable vertical & horizontal mobility between education & skilling

vi. Identify the mechanism for accumulation and storage of credits through a Credit Bank.

vii. Miscellaneous relating to the development & functioning of the unified Credit framework.

4. *What is the Concept of National Credit Framework?*

The National Credit Framework (NCrF) is an inclusive single meta framework seamlessly integrate the credits earned through School education, higher education, vocational and skill education For creditization and integration of all learning, the NCrF encompasses the qualification framework for higher education, vocational &Skill education and School education, viz: NHEQF, NSQF, NSEQF respectively.

5. *What is the Goal, Aims and Objectives of NCrF?*

The goal of the National credit Framework is a game-changer in realizing the vision and mission of NEP–2020 and achieving full human potential, developing an equitable Society and promoting national development.

The aim of NCrF is to ensure flexibility & mobility and establish academic equivalence between general and vocational education while removing distinction between them. Such integration shall open numerous options for further progress of Students and inter-mingling of School &higher education with Vocational education and experiential learning including relevant experience and proficiency to further entry and re-entry from vocational stream to general education & vice-versa. The objectives of NCrF are:

1. *Knowledge Objective:* To equip workplace with knowledge and employable skill,

2. *Understanding Objective:* To equip effective skilling on the driving force for economic growth,

3. *Application Objective:* To equip transforming our world for sustainable Development Goals (SDGs) through global education development agencies reflected in the Goal-4 of 2030 and envisaged an education system rooted in the Indian ethos to transform India into an equitable and vibrant knowledge Society.

4. *Skill Objective:* To instill among the Learners not only a deep-rooted pride in being Indian Socially with intellect and deeds but also develop knowledge, skills, values and disruption to human rights, SDGs.

6. *What are the Learning Hours for Different areas across different Levels of Education?*

The Learning hours may include Classroom Learning, teaching, practical and Laboratory work, Class projects, assignments, tutorials, Sports& Games, Yoga, Physical activities, performing art, music, handicraft work, Social work, NCC, examination, Class task, quizzes, assignment, vocational education, training and Skilling, minor and major project work, field visit in Skill education as well as Internship, apprenticeship in the job training & experiential learning.

7. *What is the Credit Provision of NCrF for different Levels of School Education?*

The total Learning hours for one year of education or learning across School education. School education, NIOS follows the credit to regular School education.

8. *What is the Credit Structure for School Education as per NCrF?*

There is no established credit mechanism for School education. However, under the Open Schooling system, the NIOS follows the following credit system.

(i) Each subject is assigned 240 hours for Self-study. Total five Subjects at Secondary and Senior Secondary level which makes it of 1200 hours and 40 credits in one year.

(ii) One credit is equivalent to 30 hours of total study, i.e. each Subject is of 8 credits.

There is no distinction for allocation of credit is based on type of Learning theory, practical & experiential Learning etc.

9. *What is the base of Allocating Credit at Higher Education Level as per CBCS Guideline?*

Under the CBCS system, the awarding of degree or diploma certificate is prescribed in terms of credit to be earned by the Students.

(i) The CBCS provides flexibility in designing curriculum and assigning credits based on the course content and learning hours.

(ii) It also provides a system wherein a Student can take courses of their choice, learn at their own pace, undergo additional courses and acquire more than the required credits and adopt the interdisciplinary approach to learning.

(iii) It also provides the opportunity for vertical mobility to Students from a bachelor's degree program to a master and research degree program.

1. *What is the Skill Assessment Matrix for Vocational Advancement of Youth?*

The Scheme on Skill Assessment Matrix for Vocational Advancement of Youth (SAMVAY) is a credit framework for Skill-based vocational courses which was launched by MHRD on 11th November, 2014.

(i) General education credit refers to a unit by which the course is measured. It determines the number of hours of instruction required per week. One credit is equivalent to one hour of teaching (Lecture or tutorial) or two hours of Practical work /field work per week. Accordingly, one credit would mean 14-15 hrs. Of theory or 28-30 hrs. Of workshop/Lab, work.

(ii) One credit is equivalent to 14-15 periods of 60 minutes each for theory or 28-30 periods of 60 minutes for workshop/lab and tutorials.

(iii) For internship/field work, the credit is 50% of that for Lectures/tutorials.

(iv) For Self-Learning based on e-content the credit weightage for equivalent hours of study is 50% or less than for Lectures/ tutorials.

9. *What are the UGC Guidelines for Providing Skill-based Education under National Skill Qualifications Framework (NSQF)?*

Under the UGC guideline, the skill-based program is a combination of 30-40% of the total content including Language are general and 60-70% are skill development content. While the general education curricula include the core trade in addition to communication skills, soft skills, digital skills, critical thinking, problem-solving skills, environmental studies and value education; the skill component includes practical classes in Laboratories/workshops, internships, apprenticeships and many other hands-on training. The credit assigned for the general education components is done as with SAMVAY.

2. *What is the Credit Structure for Autonomous Institutions like IIT/IIM?*

The credit structure for Autonomous institutions like IIT/IIMs is organized around the Semester-based credit system and in a process of continuous evaluation of Student's performance with flexibility to progress to the optimum level. The IIT follows the L-T-P structure in curriculum design and the assignment of credits for Lectures, tutorials and Practicals.

3. *What are the Functions of NSQF?*

The NSQF is a national competency-based skill framework that provides multiple (horizontal & vertical) pathways to facilitate mobility within and between vocational education and training. It also acts as a quality assurance framework organizes qualifications in a series of 10 levels on Professional theoretical knowledge, professional and technical skill/expertise, employment readiness and entrepreneurship skills and Mindset, broad learning outcomes and Responsibility acquired through formal, experiential, non-formal or informal learning and transit the desired competency to the job market or for acquiring additional skills to upgrade their competencies. It develops quality qualifications both in School education, and higher education,

and aligns Indian qualifications to international qualifications through the existing Qualification framework of other countries.

4. *What is the Composition NSQC?*

The National Skill Qualification Committee (NSQC) is a permanent Secretariat set up in NCVET and represents from Central Ministries, NITI Ayoga, UGC guideline, AITCE and CBSE, Directorate General of Training (DGT), Sector Skill Councils (SSCs) State Skill Development Mission (SSDM) and select industry bodies by rotation.

5. *Who are the Stakeholders of NSQC?*

The NSQC represents the Stakeholders from higher education, technical education, School education, open Schooling, informal education and skill ecosystem and representatives from institutions connected with education and skilling and industries and recognized industry associations by rotation, State Governments by rotation and concerned awarding bodies.

13. *What is the Academic Bank of Credit in NCrF?*

ABC of credit refers to the total credit earned by the Students. The credit of higher education ABC enables creditization of experiential learning,

It enables on-Line digital and blended Learning, especially in Vocational education and training enhances the accessibility of Learning for 90% non-English medium Students as well as Divyangas,

It will encourage the internalization of education through credit transfer provisions,

Promote exchange with foreign universities and institutions.

Advantages of National Credit Framework:-

1. Removal of distinction between educational streams, General & vocational, curricular and other activities.

2. Establish equivalence between General and Vocational Education & Training/skilling.

3. Mobility between and within General and Vocational, Education & Training.

4. Enable provision for lifelong learning through the Multiple Entry & Multiple Exit option.

5. Integration and intermingling of Education Skilling and Work Experience.

6. Enable Provisions for Recognition of Prior Learning (RPL)

Conclusion

Thus, the National Credit Framework (NCrF) is the best platform for enabling effective transformation in the education and skill ecosystem through implementing the National Education Policy -2020 and addresses the emerging imperatives of our country. Since, the NEP-2020 has proposed the revision and revamps all aspects of the education structure to create a new system befitting to 21st-century education including SDGs, it lays specific importance on the development of creative potential of each individual. Thereby, education must develop not only cognitive capacities of literacy and numeracy and higher-order capacities like critical thinking and problem-solving but also Social, ethical and emotional capacities and dispositions. On the basis of access, equity, quality, affordability and accountability, the Policy intends to transform India into a vibrant knowledge Society and global knowledge superpower by making both School and College education more holistic, flexible and multidisciplinary, which is the dire need of the hour.

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A Case-Study of the Successful Learners at a IGNOU Regional Centre as an Indicator of Student Enrolment, Retention and Multiple Exits

J S Dorothy*

Educational pursuit is an activity that provides spin-off benefits at unexpected time and hence makes an individual strive to complete the educational programme for which they have enrolled. The Convocation is a solemn occasion that invites the attention of the public gaze for it is a performance indicator for both the institution and the learner. In convocation, the successfully completed learner who has completed within the minimum prescribed duration is appreciated as much as those who have stretched beyond the minimum/maximum duration-without questioning the number of attempts tried to reach the success.

Data in a Convocation year reflect the quantum of learners who have successfully completed the programme of study for which they have enrolled. At Indira Gandhi National Open University (IGNOU), the Convocation, as a major event is one of the decentralised activities delegated to the Regional Centres (Second tier administrative setup) with a special financial budget. While the improvement in civil status, employment mobility, and career progression are some of the concerns for knowing the impact of the education and the quality of the alumni, the data related to the Convocation can also serve as an indicator for student enrolment, retention and multiple exits with specificity to a particular Regional Centre. This is because the convocation data in any Regional Centre of IGNOU can be taken as the indicator for the minimum number of learners who might have enrolled in the programme. The enrollment cohort can serve as a means to determine student retention. The repetition of the enrolment number in different modules of specific modular programmes serves as an indicator of multiple exits.

In Indira Gandhi National Open University (IGNOU), Convocation is held simultaneously throughout the second-tier structures (Regional Centres) by Teleconvocation with the live relay being transmitted from Headquarters (New Delhi). However, the University also gives the option to collect the Degree Certificate either by post (in absentia) or in person at a place of the choice of the Learner. Taking the Convocation data as available at Chennai Regional Centre, the present study discusses how the Recipients of the Certificates in the Convocation i.e., Successful learners can serve as an indicator of Student enrolment, retention, and multiple exits.

Rationale of the Study

The important reasons for a Study of this kind to be made are discussed below.

The state of Tamil Nadu has a system of distance education operating with the dual mode Distance Teaching Institutions (DTI) existing within the conventional universities, one State open university and one virtual university apart from the presence of the second tier (Regional Centers) and third tier (Study Centers) network of the Indira Gandhi National Open University (IGNOU)-the only dual-mode Distance Teaching Institution with national jurisdiction, offering programmes at various levels catering to the needs of distance learners in the State of Tamil Nadu.

As Takwale (1999) opines initially, distance education institutions, including open universities, had to face profound skepticism garnished with ridicule and hostility. They have, however, survived initial difficulties and today display immense resilience, developing a sense of identity and an air of permanence.

It is said that 'The end of a matter is better than its beginning' (Ecclesiastes 7:8). Completion and graduation are the last stage in the Learning Cycle - the others being Pre-enrolment; Enrolment and starting study; during study (Trainers' Kit 001, 1999). The fact that the learner has successfully completed the programme of the study implies that the learner has passed through all the four stages in the Learning

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Cycle.

Researchers across the ages have studied how the Instructional design components implemented into a Distance Education course resulted in greater student achievement scores (Williams,2006); internal motivation to persist in studying is needed (Rhys, 1988); student withdrawal is prevented by good support from partners, family and friends, good contact with the institution, good contact and support from other students (McGiverney, 1996); supportive employer attitude is clearly only one variable influencing student success (Zajkowski,1997). In addition, Biswas and Mythili (2006) have studied the student attrition and completion rate.

Thus, on the perusal of the research conducted so far, a lack of research studying the convocation data in one particular Second-tier administrative structure of Indira Gandhi National Open University (IGNOU) has been felt. In addition, the IGNOU Regional Centre Chennai was established in the year 1987 and has been catering to the entire State of Tamil Nadu, Andaman and Nicobar Islands until its jurisdiction region was divided among the three Regional Centres namely Port Blair, Madurai and Trivandrum. This study attempts to address the gap left by the earlier studies in which various institutional Components of the IGNOU Regional Centre, Chennai pertaining to the complete enumeration of the successfully completed Students covering the Assessment and certification process and the Student record maintenance, which were not dealt in detail so far.

Scope of the Study

The purpose of the present study was to conduct a Complete enumeration of the data about the learners who had been found eligible to confer the degree in the Convocation held from the year 1995 to 2010 at IGNOU Regional Centre, Chennai-among the various Regional Centre that exist in the Second tier administrative level of IGNOU in India. This study viewed the various cohorts of enrolment, prominent programmes, years taken for completion (Minimum Vs Maximum duration prescribed), Division secured, geographical spread in a convocation and across the various convocations (i.e., in a specific chronological year and across the 16 years from 1995 to 2010). In addition, this study also reviewed the methodology adopted for consolidating the records in a convocation to ascertain the award of multiple

degree, challenges of tracing the Recipients of the Certificates in a Convocation (Address change/ Mobility across the Regional Centres/Flexibility/ mode to receive the degree certificate irrespective of the place of enrolment) and how the Convocation records can be an indicator of the student retention for a particular cohort of enrolment.

Research Questions

The study attempted to answer the following questions on the basis of Convocation Data from the year 1995 to 2010 (N=62071 of successful learners) at the Regional Centre Chennai:

1. How many number of Programmes on offer for Study have had the successful learners in a convocation?

2. How many of the successful learners existed in a convocation over the various levels of Study namely, Certificate, Diploma, Advance Diploma, Post Graduate Diploma, Under Graduation, Post Graduation Programmes?

3. What were the various cohorts of enrolment of the successful learners across the Convocation from the year 1995 to 2010?

4. What was the duration of years taken for completion of the programme of study by the successful learners on the basis of the year of enrolment and the year of completion?

5. What were the programmes with the highest number of the successfully completed learners in the individual convocation data?

6. What were the programmes with the lowest number of the successfully completed learners in the individual convocation data?

7. What was the number of the completed learners from within Chennai city/Outside Chennai/ Outside Tamil Nadu so that the Geographical spread of the learners can be drawn?

8. What was the Spread of Term-End Examination (TEE) of the successfully completed learners?

9. What was the methodology adopted for consolidating the records in a convocation year to ascertain the award of multiple degrees at the Regional Centre, Chennai?

10. What were the Challenges of tracing the Recipients of the Certificates in convocation at the Regional Centre, Chennai?

Theme (Field) of Study

The Theme (Field) of the Present Study is "Distance Education in a Regional perspective in relation to learner outcomes and institutional variables".

Aims and Objectives of the Study

The study aimed to enumerate the successfully completed learners from 1995 to 2010 on the basis of Convocation Data available at the Regional Centre Chennai.

The Objectives of the Study were:

1. To enumerate the number of Programmes of Study having the successful learners in a convocation at the Regional Centre Chennai from the year 1995 to 2010.

2. To list the number of successful learners existing in a convocation over the various level of Study namely, Certificate, Diploma, Advance Diploma, Post Graduate Diploma, Under Graduation, Post Graduation Programme of Study (prominent programmes of the successfully completed learners) from the year 1995 to 2010 at Regional Centre Chennai.

3. To study the various cohorts of enrolment of the successful learners across the Convocation from the year 1995 to 2010 at Regional Centre Chennai.

4. To compute the duration of years taken for completion of the programme of study by the successful learners on the basis of the year of enrolment and year of completion at Regional Centre Chennai.

5. To list the programmes with the highest number of the completed learners in the individual convocation data from the year 1995 to 2010 at Regional Centre Chennai.

6. To specify the programmes with the lowest number of successfully completed learners in the individual convocation data from the year 1995 to 2010 at Regional Centre Chennai.

7. To compute the number of the successfully completed learners from within Chennai city/Outside Chennai/Outside Tamil Nadu (Geographical spread of the learners)

8. To list the Spread of Term-end Examination (TEE) of the successfully completed learners from the year 1995 to 2010 at Regional Centre Chennai.

9. To note down the methodology adopted for consolidating the records in a convocation year to ascertain the award of multiple degrees at Regional Centre Chennai.

10. To list the Challenges faced in tracing the Recipients of the Certificates in a convocation at Regional Centre Chennai.

Methodology Adopted for the Study

The present study undertook had two parts namely **1.** To study the best practices related to convocation at Indira Gandhi National Open University (IGNOU) Regional Centre, Chennai and Regional Centre Chennai. **2.** To Study the Successfully completed learners.

Methodology for Studying the Best Practice Related to the Convocation

The Case Study method was used to study the Successfully completed learners of the second-tier administrative structure of Indira Gandhi National Open University (IGNOU), i.e., IGNOU Regional Centre, Chennai. A case Study is a research study, that is holistic in purpose and examines in a real-life situation the existing phenomena through the description and analysis of the unit. In the Case Study on the IGNOU Regional Centre, Chennai, the researcher attempted to collect information pertaining to the various successfully completed learners, variables /components as reflected in terms of their objectives for holding the convocation, modus operandi for convocation, jurisdiction of the task of convocation, the number of types of programmes and nomenclature of programmes on offer and its association with the task of convocation, the eligibility criteria for convocation (as reflected by the prescribed prerequisite conditions like submission of forms/payment of convocation fee), flexibility in choice prevalent for the learners to choose a venue of their choice for convocation, duration of the convocation, modalities for convocation (Teleconvocation/chief guest/special invitees/guest of students/media/press/seating arrangements/handing over the certificate, refreshments), evaluation system adopted and the number of successfully completed candidates. The IGNOU Regional Centre, Chennai as a unit was treated as a whole in the context of

specific situations. The case study on Successfully completed learners at IGNOU Regional Centre, Chennai was conducted to develop a deeper understanding of the intricate relationship existing in the process-aspect of a specific unit/units through qualitative investigations. Extensive collection of data concerning the internal as well as external environment of the Successfully completed learners at IGNOU Regional Centre, Chennai was carried out, in order to have completeness of the data. Data collection was continued till the completeness of data was ensured and a complete picture of the successfully completed learners at IGNOU Regional Centre, Chennai emerged.

In order to ensure the authenticity of data collected on successfully completed learners at IGNOU Regional Centre, Chennai, multi-technique approach to data collection and cross-examination of data through different techniques was adopted. Techniques such as observations, and record surveys were used to elicit information. In order to minimise/nullify the researcher's bias which may arise since the researcher interacted with the typical situations personally, most of the ethical issues regarding the nature of data, the sample situations specific to the convocation as an event or respondents limited to the complete enumeration of successfully completed learners as the convocation data available between 1995 to 2010, the nature of interactions were decided prior to the start of the Study. The necessary data, involving personal and ethical issues and confidential records, documents about the institution, etc., were handled tactfully, and recorded confidentially with appropriate care. Every effort was made to identify and describe different underlying factors contributing to the Successfully completed learners at IGNOU Regional Centre, Chennai as a whole with emphasis on a set of processes of IGNOU Regional Centre, Chennai as an administrative structure of a dual mode Distance Teaching Institution (DTI) with national jurisdiction in the context of its specific environment in the Distance Education field.

Participation observation technique was used in the conduct of the case study of the successfully completed learners at IGNOU Regional Centre, Chennai. This is because, the researcher is also an employee of IGNOU Regional Centre, Chennai during the conduct of the Study. Special care was taken to be objective fit to the purpose of the Study and while jotting down the information from the research angle.

Descriptive research method design, which involves the description, recording, analysis and interpretation of conditions that exist, was used to obtain information concerning the current status of a given phenomena in the Convocation Activity related to the Indira Gandhi National Open University (IGNOU) Regional Centre Chennai,

The study also undertook a complete enumeration of the records of the learners who have successfully completed the programme of study for which they have enrolled, pertaining to the Convocation, from the Convocation year 1995 to 2010 as available with the Indira Gandhi National Open University (IGNOU) Regional Centre Chennai to achieve the research objectives.

Both types of Observation techniques namely Structured and Unstructured Observation were used because they can complement each other; structured observation leads to more quantitative and unstructured observation leading to more qualitative data. Structured observations entail pre-specified categories and hence were used to elicit information about pre-planned, prescribed, well-defined student support practices *(like communication to the learners about the convocation)* where external human encounters are nil or minimised in the transactions in the IGNOU Regional Centre, Chennai. Since unstructured observation looks at persons and their environment in a holistic way, the same was utilised to elicit information about student support services of IGNOU Regional Centre, Chennai related to organisation of the Convocation process, the despatch of communication about the convocation and the Degree certificates after the conduct of the Convocation.

Methodology for Studying the Successfully Completed Learners

The data of Successfully completed learners at IGNOU Regional Centre, Chennai was collected from Primary sources as available in the records for the convocation, from the Convocation year 1995 to 2010 referred to as "convocation data" for the IGNOU Regional Centre Chennai. The data for this study *(Convocation data for the IGNOU Regional Centre, Chennai)* is of Primary Source as it is not available in any other public domain.

Technique of the Data Collection for the Study

The Technique of the Data Collection for Study is schematically depicted in the following Figure 1

Analysis of the Data

The Convocation Data as available at the Regional Centre Chennai was analysed to facilitate the discussion on the following issues:

1. Successful learners in the Convocation at the Regional Centre Chennai

2. Prominent programmes

3. The various cohorts of enrolment and years taken for completion

4. Geographical spread

5. Spread of Term End Examination (TEE)

In addition to the analyses on the basis of the Convocation data, the following issues were also discussed:

1. The methodology adopted for consolidating the records in a convocation

2. Challenges of tracing the Recipients of the Certificates in a convocation

Results and Discussion of the Study

The results pertaining to the 10.1 Analysis of the Convocation data as available with the Chennai Regional Centre and 10.2 For Studying the best practice related to the Convocation were discussed after tabulation under the relevant headings, which fell within the scope of the Study.

Analysis of the Convocation Data as Available at the Regional Centre Chennai

Successful Learners in the Convocation at the Regional Centre Chennai

Completion and graduation are the last stage in the Learning Cycle- the others being Pre-enrolment; Enrolment and starting study; during study (Trainers' Kit001, 1999). The fact that the learner has successfully completed the programme of the study implies that the learner has passed through all the four stages in the Learning Cycle. The number of learners who have successfully completed the programme of study for which they have enrolled and have qualified to receive the said Degree in the Convocation is given in Table 1.

As evident from Table 1, it can be observed that the number of Successful learners cumulatively for the 16 Convocation years was the highest for Post Graduate Degree Programmes (28.99%), second by Postgraduate Diploma Programmes (24.04%), thirdly by Certificate Programmes (16.78%), fourthly by Diploma Programmes (12.66%), fifthly by Under Graduate Degree Programmes (11.04%) and lastly by Advanced Diploma Programmes (12.66%).

Figure-1 The Technique of the Data Collection for Study

Components in the Study	Part 1	Part 2
Objectives Covered	Objective Number One to Nine	Objective Number Ten and Eleven
Target of the Study	Successfully completed learners	IGNOU Regional Centre Chennai
Technique	Information as available in the Convocation data	Multi-technique /Recalling experiences
Research Design	Complete enumeration survey method (Census) of the Convocation data available at IGNOU Regional Centre Chennai	Case Study of the conduct of the Convocation as an activity at IGNOU Regional Centre Chennai using Participation observation technique
Research Approach	Quantitative approach	Qualitative approach
Research Tools used	Checklist	Participation Observation
Types of Items in the Tools	Forced –choice (Close-ended); open-ended and multiple responses as depicted in the Primary data at Regional Centre Chennai	Forced –choice (Close-ended); open-ended and multiple responses
Period of Data collection	July 2016 to February 2017	July 2016 to February 2017 but have recalled the experiences of being an employee handling Convocation activity at more than five Regional centres between 1997 and 2024

Table 1 : Successful Learners in the Convocation at the Regional Centre Chennai

Year of Convocation	No of Programmes Covered	Certificate (Number %)	Diploma (Number %)	Advanced Diploma (Number %)	PG Diploma (Number %)	UG Degree (Number %)	PG Degree (Number %)	Total
2010	42	NA	149 (7.84%)	0	286 (15.05%)	1009 (53.10%)	376 (19.78%)	**1900**
2009	45	NA	95 (5.26%)	0	242 (13.41%)	1014 (56.20%)	453 (25.11%)	**1804**
2008	48	NA	156 (5.07%)	264 (8.58%)	675 (21.95%)	1118 (36.35%)	862 (28.03%)	**3075**
2007	31	NA	0	0	16 (1.57%)	503 (49.41%)	499 (49.01%)	**1018**
2006	68	364 (4.99%)	1205 (16.52%)	883 (12.10%)	2364 (32.41%)	1056 (14.48%)	1420 (19.47%)	**7292**
2005	74	751 (9.45%)	1293 (16.27%)	1091 (13.73%)	2507 (31.55%)	775 (9.45%)	1529 (19.24%)	**7946**
2004	70	662 (8.52%)	1213 (15.62%)	1042 (13.41%)	3035 (39.08%)	708 (9.11%)	1105 (14.23%)	**7765**
2003	65	1884 (27.38%)	1306 (18.98%)	415 (6.03%)	2381 (34.60%)	296 (4.30%)	598 (8.69%)	**6880**
2002	61	2306 (41.88%)	913 (16.58%)	125 (2.27%)	1561 (28.35%)	169 (3.06%)	432 (7.84%)	**5506**
2001	30	1785 (33.97%)	173 (3.29%)	51 (0.97%)	224 (4.26%)	103 (1.96%)	2918 (55.53%)	**5254**
2000	39	1063 (24.20%)	1255 (28.58%)	53 (1.20%)	1574 (3.58%)	98 (2.23%)	348 (7.92%)	**4391**
1999	15	649 (22.90%)	27 (0.95%)	12 (0.42%)	33 (1.16%)	1 (0.03%)	2111 (74.51%)	**2833**
1998	13	599 (29.13%)	22 (1.07%)	0	14 (0.68%)	1 (0.04%)	1420 (69.06%)	**2056**
1997	09	169 (8.91%)	13 (0.68%)	0	10 (0.52%)	0	1703 (89.86%)	**1895**
1996	11	82 (5.72%)	26 (1.81%)	0	3 (0.20%)	1	1321 (92.18%)	**1433**
1995	08	103 (10.06%)	17 (1.06%)	0	0	2 (0.19%)	901 (88.07%)	**1023**
Total Number and Percentage		10417 (16.78%)	7863 (12.66%)	3936 (6.34%)	14925 (24.04%)	6854 (11.04%)	17996 (28.99%)	**62071**

(UG- Under Graduate; PG- Post Graduate; NA-Not Available for distribution in the Teleconvocation)

The finding that the number of successful learners was higher for Postgraduate Degree Programmes when compared to the Post Graduate Diploma Programmes was in line with the findings made by Biswas and Mythili (2006). After studying the student attrition and completion rate for 8 years of two Programmes namely the Postgraduate Diploma in Distance Education Programme (PGDDE) and Post Graduate Programmes in Distance Education (MADE), Biswas and Mythili (2006) found that the completion rate for MADE (a Postgraduate Degree Programme) was comparatively better than that of PGDDE (a Post Graduate Diploma Programme).

As far as the individual convocation years were concerned, the highest number of Successful learners

was in the Post Graduate degree programmes for six Convocation years (1995 to 1999, 2001 and 2007) followed by undergraduate degree programmes in the four consecutive Convocation years (2007 to 2010).

This analysis was to fulfill the first objective of the Study- To enumerate the number of Programmes of Study having successful learners in a convocation at the Regional Centre Chennai from the year 1995 to 2010.

Prominent Programmes

The Programmes which had the highest and the lowest number of recipients of the certificates are given in Table 2.

It can be noted from Table 2, that the highest number of recipients of the Certificates was for the Management Programme (MP) in six convocation years of which five years were consecutively from 1995 to 1999 and the sixth year was in the Convocation year of 2001 followed by Bachelor in Education (B.Ed) Programme for four consecutive convocation year from 2007 to 2010.

Thus, the MP and the B.Ed programme were the prominent programmes in the Convocation on the basis of the highest number of recipients of the Degree Certificate. It is apt to highlight that both the MP and B.Ed programme are based on the entrance

Table 2: Programmes with the Highest and Lowest Number of Recipients

Year of Convocation	Convocation Number	Programme with the Highest Number of Recipients	Number	Lowest Number of Recipients	
2010	21	B.Ed	884	BA(MTE); BA (ORD), MAH, MHD, PGDDM	5 (1 each)
2009	20	B.Ed	835	BA (EPS), BA(ORD), BA(ESO), BSC(ZOL), BSC(ORD), BTS, MHD, PGDESD, PGDGM, PGJMC	10 (1 each)
2008	19	B.Ed	929	BA (ORD), BIT, BLS, BSC(BOT), BSC(ZOL), DAFE, DNHE, DCE, MTM, PGDDE, PGDDM, PGDLAN, PGJMC	13 (1 each)
2007	18	B.Ed	360	BA(EHI), BA(EPA), BLS, BSC(PHY), BTWRE, PGJMC	6 (1 each)
2006	17	ADCA	875	ADIT, BA(EEC), BA(EHD), BSC (CHE), BSC(ZOL), BTS, CHR, DCE, DTS, MADE	10 (1 each)
2005	16	ADCA	1084	BSC(MTE), BSC(ZOL), BTS, CES, CRD, DOM, MADE, DHRM, MEG, PGDT	10 (1 each)
2004	15	DIM	1170	BSC(MTE), BSC(ZOL), CWED, DCO, DHRM, DOM, MLS, PGCMRR, PGCRW	9 (1 each)
2003	14	CIC	1655	BA(EEC), BA(EHD), BLS, BSC(LSE), CAFÉ, CES, CHR, CRD, DCE, DOM, DTS, PGDRD	12 (1 each)
2002	13	CIC	2223	ADWRE, BSC (LSE), BTWRE, CYP, DCYP, DMM, MADE	7 (1 each)
2001	12	MP	2893	BLS, BTS, DCH, MADE, PGDDE	5 (1 each)
2000	11	DIM	1105	CDM (1)	1
1999	10	MP	2111	BLS, CIG	2 (1 each)
1998	9	MP	1412	BLS, MADE	2 (1 each)
1997	8	MP	1702	MADE	1
1996	7	MP	1317	BLS	1
1995	6	MP	892	BLS	2
Total			21447		96

exam and it appears that the drive for completion of the programme is need-driven.

B.Ed Programme is exclusively for in-service teachers. The contributing factor for B.Ed being one of the prominent programmes as found in the Present study may be as that proposed by Zajkowski, (1997) who after studying the Student perceptions of employers' attitudes to study for improved qualifications found that the employers of these students were strongly or moderately supportive and concluded that a supportive employer attitude is clearly only one variable influencing student success.

This analysis was to fulfill the Second, Fifth, and Sixth objectives of the Study.

- To list the number of the successful learners existing in a convocation over the various level of Study namely, Certificate, Diploma, Advance Diploma, Post Graduate Diploma, Under Graduation, Post Graduation Programme of Study (prominent programmes of the successfully completed learners) from the year 1995 to 2010 at Regional Centre Chennai.

- To list the programmes with the highest number of successfully completed learners in the individual convocation data from the year 1995 to 2010 at Regional Centre Chennai.

- To specify the programmes with the lowest number of successfully completed learners in the individual convocation data from the year 1995 to 2010 at Regional Centre Chennai.

The Various Cohorts of Enrolment and Years Taken for Completion

The Convocation records can also serve as an indicator of student retention for a particular cohort of enrolment when viewed in terms of the oldest and most recent enrolment cohort in a convocation year. This is because, in IGNOU, flexibility is given to the learner to complete the programme of study either in the minimum duration prescribed or to the Maximum duration given for the specific programme. In addition, IGNOU provides a facility for readmission, wherein a learner can extend the period of study beyond the maximum duration prescribed for the programme of study. The Oldest and Recent Enrolment Cohort in a Convocation year from the year 1995 to 2009 along with the years taken for completion is given in Table 3.

While corroborating with the data, the enrolment cohort which is uniquely followed in

Table 3 : The Various Cohort of Enrolment and Years Taken for Completion

Year of Convocation	Convocation Number	Oldest enrolment cohort	Years taken for completion (Maximum)	Recent enrolment cohort	Years taken for completion (Minimum)
2010	21	1990	20	2008	2
2009	20	1989	20	2007	2
2008	19	1991	17	2006	2
2007	18	1992	15	2006	1
2006	17	1990	16	2006 (2005)	1
2005	16	1989	16	2006 (2004)	1
2004	15	1988	16	2006 (2003)	1
2003	14	1988	15	2006 (2002)	1
2002	13	1987	15	2001	1
2001	12	1987	14	2000	1
2000	11	1988	12	1999	1
1999	10	1988	11	1998	1
1998	9	1987	11	1997	1
1997	8	1987	10	1996	1
1996	7	1987	09	1995	1
1995	6	1987	08	1994	1

(Number in Parenthesis indicates the enrolment cohort for Programmes other than ADIT)

IGNOU was ensured for tabulation. The enrolment number given in IGNOU is numeric in nature and the first two digits of the enrolment number indicate the last two digits of the chronological calendar year. For example, if the first two digits of the enrolment number are 10, it indicates that the admission has taken place in the year 2010.

From Table 3, it is evident that in two Convocation years-2009 and 2010, the oldest enrolment cohort was 1989 and 1990 respectively. This implies that a learner who had enrolled in to the Programme of Study in the year 1989 and 1990 respectively has successfully completed the programme of study and qualified to receive the Degree certificate in the year 2009 and 2010 respectively. In other words, the Distance Education System (DES) in IGNOU has retained a learner for Twenty years and facilitated the learner to successfully complete the Programme.

Taking the years taken for completion, as evident from Table 3, it can be observed that the maximum years taken for completion ranged from 8 years to 20 years. For three consecutive convocation years (2004 to 2006) data authenticate that the learners have taken 16 years to complete the Programme of Study for which they have enrolled. Evidence also existed that the learner has taken 15 years (Convocation year 2007, 2003 and 2002), and 17 years (Convocation year 2008) to complete the Programme of Study for which they have enrolled. A perusal of the individual records who have taken maximum years to complete the programme of study indicated that they have enrolled for the Management programme *(in 14 out of the 16 Convocation years analysed in the study)*. The other programmes were Bachelor's Degree in Commerce (B.Com) and Diploma in Distance Education (DDE).

The maximum years taken for completion of the Programme enrolled by the learners reinforces the view of Rhys (1988) who opines 'studying is a multi-dimensional process, wherein each student develops a unique path of learning which is influenced by factors both external to and within that person, which interact with one another and may change over time and that internal motivation to persist in studying is needed'. It is apt also to mention the view of McGiverney (1996) who listed good support from partners, family and friends, good contact with the institution, good contact and support from other students as factors that militated against student withdrawal.

Before discussing the recent enrolment cohort and the minimum year for completion, it is apt to mention that certain specific Programmes like the ADIT (Advanced Diploma in Information Technology) have separate enrolment number allotment structures. For ADIT, the enrolment number was allotted by the School of Computer and Information Sciences (SOCIS) which offered the programme. While corroborating the data on the basis of the various cohorts of enrolment, it was found that for six consecutive years of convocation 2003 to 2008, the recent enrolment cohort was 2006, because the ADIT learners were the recipients of Certificates in these years. As far as the successful learners of the common programmes offered through the Regional Centre are concerned, the recent enrolment cohort were 2005 in the 2006 Convocation year; 2004 in 2005 Convocation year; and 2002 in 2003 Convocation year.

The findings implied that the enrolment cohort served as an indication of the presence of learners who had successfully completed the Programme of study within the minimum time period and those who had stretched beyond the maximum time period prescribed by the University for the Programme of Study in which they have enrolled.

This analysis was to fulfill the Third and Fourth objectives of the Study.

- To study the various cohorts of enrolment of the successful learners across the Convocation from the year 1995 to 2010 at Regional Centre Chennai.

- To compute the duration of years taken for completion of the programme of study by the successful learners on the basis of the year of enrolment and year of completion at Regional Centre Chennai.

Geographical Spread

On the basis of the PIN code in the address of the learner as available in the Convocation Data, the Geographical spread on the basis of Chennai City, Outside Chennai, Outside the State of Tamil Nadu was studied. Across the various convocation years (from 1995 to 2010) the total number of available valid frequencies was 50393. Of this 47.24% (n=23806) are those who reside in Chennai; 49.40% (n=24896) are

those who reside outside Chennai; 3.35% (n=1691) are those who reside outside Tamil Nadu.

The Geographical spread in a Convocation for the 16 years from 1995 to 2010 is given in Table 4.

From Table 4, it can be observed that the highest number of graduates who reside in Chennai was the highest (n=3773; 49.29%) in the 15th Convocation (2004) and lowest (n=383; 39.60%) in the 18th Convocation (2007).

The number of graduates who reside outside Chennai was the highest (n=3999; 51.46%) in the 16th Convocation (2004) and the lowest (n=550; 56.87%) in the 18th Convocation (2007). The number of graduates who reside outside Tamil Nadu was the highest (n=318; 4.09%) in the 16th Convocation (2004) and the lowest (n=34; 3.51%) in the 18th Convocation (2007).

Thus, the cumulative Data for the 16 years of convocation revealed the highest number of successfully completed are those who reside outside Chennai (n= 24896; 49.40%) followed by those who reside in Chennai (n= 23806; 47.24%) and lastly by those who reside outside Tamil Nadu (n=1691; 3.35%).

The highest number of passed-out learners attending the convocation with Addresses for communication outside Chennai, implies that due consideration should be given to making other courtesy arrangements in the Convocation venue for Refreshments, boarding facilities, Cloakroom (to change into the special occasion attire), Reception and guiding signs to facilitate easy identification of the venue. These hospitality arrangements become a sign of quality in the conduct of the convocation, as it reflects on the efficient process that facilitates the person from outside Chennai to accustom to an event happening in an earmarked venue in Chennai. In addition, data on the cumulative number of Recipients of the Certificates from outside the place where the Convocation is being held can also be used as an indicator for deciding on the timing to hold the convocation.

This analysis was to fulfill the Seventh objective of the Study-To compute the number of successfully completed learners from within Chennai city/Outside Chennai/Outside Tamil Nadu (Geographical spread of the learners)

Table 4: Geographical Spread in a Convocation

Year of Convocation	Convocation Number	Chennai		Outside Chennai		Outside Tamil Nadu		Total Valid Frequencies
		N	%	N	%	N	%	N
2010	21	783	41.6267943	1050	55.8213716	48	2.55183413	1881
2009	20	777	41.6621984	1044	55.9785523	44	2.35924933	1865
2008	19	1208	39.9074992	1762	58.2094483	57	1.88305253	3027
2007	18	383	39.6070321	550	56.876939	34	3.51602896	967
2006	17	2978	41.4994426	3904	54.4035674	294	4.09698997	7176
2005	16	3454	44.4473041	3999	51.4605585	318	4.09213743	7771
2004	15	3773	49.2944865	3607	47.1256859	274	3.57982754	7654
2003	14	3128	46.6587112	3318	49.4928401	258	3.84844869	6704
2002	13	2632	48.6596413	2596	47.9940839	181	3.34627473	5409
2001	12	NA	NA	NA	NA	NA	NA	NA
2000	11	2583	59.1752577	1684	38.5796105	98		4365
1999	10	NA	NA	NA	NA	NA	NA	NA
1998	9	NA	NA	NA	NA	NA	NA	NA
1997	8	NA	NA	NA	NA	NA	NA	NA
1996	7	NA	NA	NA	NA	NA	NA	NA
1995	6	NA	NA	NA	NA	NA	NA	NA
	Total	23806	47.2406882	24896	49.403687	1691	3.35562479	50393

(N=Number; %=Percentage)

Spread of Term End Examination (TEE)

On the basis of the qualifying Term End Examination (TEE), specified in each of the Convocation, the number of TEE covered in a convocation year and the range of TEE (equivalent to the Year of passing) in a convocation year was determined. Of the sixteen Convocation years analysed, the data was available for 14 Convocation years (excluding the Convocation years 2000 and 2001). The number of TEE covered in a convocation year along with the Oldest and the Recent year of passing in a convocation year is given in Table 5.

In IGNOU, the Term End Examination (TEE) is held twice a year- in the month of June and December.

The June TEE is denoted as 06 session - 06 indicating the chronological number of the month of June in which the TEE is held. Similarly, the December TEE is denoted as 12 sessions - 12 indicating the chronological number of the month of December, in which the TEE is held. For example, the June TEE in the year 1998 is referred to as 0698 session; similarly, the December TEE in the year 2003 is referred to as the 1203 session.

The TEE covered in a convocation year is of interest as it is an indicator for student retention in a programme, which projects the persistence of the learner to successfully complete the programme of study for which they had enrolled.

Table 5 : Spread of Term End Examination (TEE) in a Convocation Year

Year of Convocation	Convocation Number	Number of TEE Covered	Term End Examination (TEE) Covered	Number	Oldest TEE Session	Recent TEE Session
2010	21	6	0606;1206;1207;0608: 1208;0609	1900	June 2006	June 2009
2009	20	6	1202;1205;1206;0607; 1207;0608	1881	December 2002	June 2008
2008	19	11	1293;1295;0697;1299; 0602;1202;1204;0605; 0606;1206;0607	3060	December 1993	June 2007
2007	18	2	0606;1205	977	December 2005	June 2006
2006	17	9	1200;1201;0602;1202; 1203;0604;1204;0605; 1205	7292	December 2000	December 2005
2005	16	3	1203;0604;1204	7946	December 2003	December 2004
2004	15	5	0200;0602;1202;0603; 1203	7765	December 2000	December 2003
2003	14	2	1201;0602	6880	December 2001	June 2002
2002	13	3	1200;0601;1201	5506	December 2000	December 2001
2001	12	*Not Available (NA)*				
2000	11					
1999	10	6	1295;0696;1296;1297; 0698;0699	2833	December 1995	June 1999
1998	9	4	1296;0697;1297;0698	2056	December 1996	June 1998
1997	8	6	0694;1295;0696; 0697	1895	June1994	June1997
1996	7	5	1293; 294;0695; 0696; 1296	1433	December 1993	December 1996
1995	6	3	1293;0694; 0695	1020	December 1993	June 1995

From Table 5, it can be observed the highest number of Term End Examinations has been covered in the 19th Convocation (11 sessions - of which six are December sessions and five are June sessions) held in the year 2008, followed by the 17th Convocation (Nine sessions - of which six are December sessions and three are June sessions) held in the year 2006. It can also be observed that the lowest number of Term End Examinations has been covered in the 14th and 18th Convocation (Two sessions each - one each of the December and June sessions) held in the years 2003 and 2007 respectively. It can also be observed from Table 5 that in four convocations (2010, 2009, 1999, and 1997) six term-end examination sessions have been covered; for two convocations (2004 and 1996) five term-end examination sessions have been covered.

It can also be observed that the Oldest TEE session was that of December in 12 of the 14 Convocation years (85.71%). The Recent TEE session was that of June in 9 of the 14 Convocation years (64.28%).

Thus, the data analysis revealed the presence of a maximum of 11 and a minimum of two Term End Examination (TEE) sessions in a convocation year. The frequently occurring Oldest TEE session was that of December and the Recent TEE session was that of June.

The implication of this finding is that it serves as an indicator of student persistence to complete the programme of study for which they have enrolled. In addition, the redressed student grievance related to the non-reflection of the Assignment Awards in the Grade Card of the learner also contributes to the quantity of the passed out learners and thereby the number of the Term End Examination (TEE) sessions in which the Awards should have actually been updated in the Grade Card of the respective learners. The real causative factors contributing to the span of the Term End Examination (TEE) session covered in a Convocation year are of specific research interest which can reflect upon the functioning of the various sub-systems in the University.

This analysis was to fulfill the Eighth objective of the Study-To list the Spread of Term-End Examination (TEE) of the successfully completed learners from the year 1995 to 2010 at Regional Centre Chennai

For Studying the Best Practice Related to the Convocation

The variables /components as reflected in terms of their objectives for holding the convocation include the identification of the downlink facility for the direct relay from the headquarters (New Delhi). IGNOU Regional Centre, Chennai is not only a second-tier administrative structure of IGNOU but also a site to downlink the direct relay for the convocation activity as an event.

The modus operandi for convocation activity as an event is after the notification of the IGNOU Regional Centre, Chennai as a site to downlink the direct relay from the headquarters (New Delhi) by the competent authority (Regional Services Division, which governs all the Regional Centres across the nation of India; Student Evaluation Division which is responsible for the certification of the successfully completed learners in IGNOU.

The jurisdiction of the task of convocation is Regional Centre Specific. The Regional Centre Chennai extends the task of convocation to the learners who have opted to receive the Degree Certificates from IGNOU Regional Centre, Chennai. The completed learners need not necessarily be those enrolled at IGNOU Regional Centre, Chennai but also those who due to their social, personal, employment and family commitments have moved to the geographical location within the jurisdiction of IGNOU Regional Centre, Chennai.

The nomenclature of programmes on offer and their association with the task of convocation is generalised as Certificate, Diploma, Advanced Diploma, Post Graduate Diploma, Under Graduate Degree and Post Graduate Degree. The number of types of programmes covered in a convocation is directly proportional to the applicant for receiving the degree certificate *(which represents the successfully completed learners)*

The eligibility criterion for convocation was reflected by the prescribed prerequisite conditions like submission of forms/payment of convocation fee within the prescribed time limit. Press release, scroll news on the official website and individual letters to the students are the means to reach the successfully completed learners to register for the convocation.

The flexibility in choice for the learners to choose a venue of their choice for convocation was prevalent both at the time of applying for the

Convocation after the successful completion of the Programme of Study and later deciding to come in person or receive the degree certificate inabsentia from the IGNOU Regional Centre, Chennai. The degree certificates of the successfully completed learners who have registered for the Convocation by paying the fee and those who have not yet paid the fee are sent to the respective IGNOU Regional Centres by the Student Evaluation Division of IGNOU. Upon receipt of the data from the Student Evaluation Division of IGNOU, the IGNOU Regional Centre, Chennai sends an individual letter to the registered candidates to confirm whether they still hold their decision to come and collect the Degree Certificate in person on the day of the Convocation at the venue identified by the IGNOU Regional Centre, Chennai. It was also explicitly informed in this individual letter that in the event of the candidate not being available to be present in person to collect the Degree Certificate, then the same would be despatched to the address of the Candidate after the conduct of the Convocation.

The duration of the convocation spans over a period of five hours. The first three hours were where the virtual Teleconvocation from the Head Quarters takes place. After the virtual Teleconvocation from the headquarters is over, the Regional Convocation Activity takes place. The live Telecast/webcast is part of the Convocation activity for the virtual Teleconvocation from the Head Quarters.

The modalities for convocation involve activities related to the 1. Pre-convocation activities, 2, Convocation activities and 3. Post convocation activities.

Pre-convocation activities included identification of the venue; selection of the anchoring person in order to link the Teleconvocation with the Regional relevance; identification of the Guest of Honour; selection of technical expertise for downlinking the Teleconvocation; deciding the earmarking of seating arrangements for Press, Media, important dignitaries, guests, employees, crew of the technical wing *(for downlinking the Teleconvocation)* and the Candidates; sending a communication to the Candidates to confirm their consent given to attend the convocation at the time of Registration; paying advance for the refreshments, working lunch; preparation of charts for the Exhibition; Segregation of the Degree Certificates; Preparation of the Regional Director

report; Empanelling the Photographer; the issue of Press Release.

Convocation day activities included events like receiving the Guest of Honour for the Regional Convocation; receiving the Candidates, guests and dignitaries; handing over the certificate and refreshments to the candidates; ensuring the Participation in the Teleconvocation; inaugurating the exhibition; conducting the Regional Convocation after the Teleconvocation; Photo sessions; video recording; Recording the experiences of studying with IGNOU (Success Stories) and Press meet. Utmost care is also taken to ensure safe custody of the Certificates of the Candidates, who have not turned in for the Convocation, Post-convocation activities include documentation of the Photographs, videos; Reporting about the conduct of the Convocation; despactching the certificates to candidates who have not attended the convocation; letter of appreciation to the Press; Letter of gratitude to the Guest of Honour.

The Methodology Adopted for Consolidating the Records in a Convocation Year

Upon the receipt of the Convocation data at the Regional Centre, the number of recipients of the Certificates in a Convocation year was ascertained. Practically, this consolidation of the records in convocation helped the Regional Centre to decide upon the physical facilities required for holding the convocation, and the hospitality arrangements which bear emotional ties between the Alma Mata and the Alumnae. However, the consolidation of records was of interest to a researcher to ascertain the award of multiple degrees in a convocation year. Because of the existence of flexibility to complete the programme of study with the maximum period of time, at times the learner stretches the study beyond the maximum period thereby availing readmission facility offered by the University. Similarly, learners take their own time to complete the programme of study to qualify themselves to get the various parts (modules) of the programme at the same point in time. This is more commonly observed in modular programmes like Management Programme (MP), Engineering Programme (BTCM/BTWRE) and Master of Computer Applications (MCA).

In IGNOU, the package used for dissemination of information was FoxPro (Database Package). The advantage of the FoxPro Database package was its

suitability to work on huge quantum of data. Upon the receipt of the Convocation record at the Regional Centre, the file was indexed on the basis of enrolment number. In IGNOU, the enrolment number was a nine digit number with the first two digits indicating the last two digits of the Chronological year in which the admission was made. When the data was indexed on the basis of enrolment number, the single enrolment number eligible for more than one Certificate in the said Convocation year gets listed. The list of the recipients of the Degree Certificate in a particular convocation year was prepared by giving running serial numbers. This indexed file was later categorised into four categories. The first category denotes the Computer Programme; the second category denotes the Management Programmes; the third category denotes the B.Ed Programme; the fourth category denotes other programmes other than Computer, Management and B.Ed Programme. The indexed file after categorisation was used to generate the address label for sending the invitation letters for the Convocation.

The admission policy of the university permits a learner to enroll in one certificate programme and one of the other Programmes in a Chronological year of admission. Hence, sorting on the basis of the enrolment number gave the list of multiple degrees, which was possible in modular programmes like the Computer, Engineering, and Management Programme. This type of computer indexing also facilitates the back office administration in manual segregation of the Certificates. As a result of indexing, a computer label with the name, enrolment number, address of the learner, and the Programme or Programmes for which the learner has qualified, was prepared. During the manual segregation process, the certificates of a learner for multiple programmes were put together in a single envelope and tallied with the details mentioned in the Computer generated label. For example, if a learner had successfully completed PGDCA/ADCA/MCA degree (i.e., three Programmes) in a Convocation year than these certificates pertaining to one specific learner in a single cover. This method was used for MBA Programme and other modular progrrammes like BTCM/BTWRE (Engineering Programme).

This analysis was to fulfill the Ninth objective of the Study- To note down the methodology adopted for consolidating the records in a convocation year to ascertain the award of multiple degrees at Regional Centre Chennai.

Challenges of Tracing the Recipients of the Certificates in a Convocation Year

In Indira Gandhi National Open University (IGNOU), Convocation was held simultaneously throughout the second-tier structures (Regional Centres) by Teleconvocation with the live relay being transmitted from Headquarters (New Delhi), where the convocation was held face-to-face. However, the University also gave the option to collect the Degree Certificate either by post (in absentia) or in person at a place of the choice of the Learner. With such flexibility in vogue, it gave a learner full autonomy to receive their degree at their preferred mode/place. In addition, the convocation was considered as a special activity of IGNOU with a separate budget given to the Regional Centre to execute the activity. The convocation was generally held in the month of February/March in a Calendar year. Generally, in the month of February/March, admission activity (the main revenue generating activity) in a Regional Centre was in full swing. As a result, besides the routine activities, the convocation activity is also undertaken with the demand for perfection within the short turnaround time. In addition, when considered as the sub-activities in the whole convocation activity, the despatch of the invitation letters to the learners who have successfully completed the programme of study for which they have enrolled was a minute part yet is significant as without them, the whole event goes unnoticed.

The challenges of tracing the Recipients of the Certificates in a Convocation year are the following:

Change in Address for Communication

The despatch of the invitation letters was generally sent through the Speed post consignment available with the India Posts (Official name for the Indian Postal System). While the despatch of the invitation letters, even though looks like a simple activity, any returned letter poses question on the Change of Address of the learner. Generally a letter is returned by the India Posts back to the sender only when the addressee was not residing in that Address. While the India Posts have specific arrangements available for those residents of India to receive the letters posted to the previous address ranging from receiving by the Post Master to redirecting the mail. Many a time, such arrangements were not availed of by the public. As a result, the returned mail was an indication for the unavailability of the learner in the address (place) given at the time of submission of the application form for receiving the certificate

in a Convocation year. In such cases, the Change of Address for the communication to the learner remains a challenge for dissemination of information about the convocation. However, the dissemination of the date of the Convocation through the Mass media and website do draw the attention of the learners who have qualified to get the Certificate in the said Convocation.

At times, the Degrees awarded in absentia, through post were also returned back undelivered. In such cases, facilities were available on the official website of IGNOU to track the Certificates returned undelivered.

Mobility Across the Regional Centres

IGNOU provided flexibility to avail change of Regional Centre in which a learner initially enrolled at the time of Admission. During the time duration of the Programme of Study, a learner can change from one Regional Centre to the other and from the Learner Support Centre to the other. Change of one Regional Centre to the other in IGNOU was referred to as Inter Region Transfer (IRT) in IGNOU. Similarly, a learner has the autonomy to seek admission in a Regional Centre and receive the Degree Certificate in another Regional Centre. Records were available on snow-ball sampling wherein a learner registered at Jaipur Regional Centre (Rajasthan) after giving a residential address in Tamil Nadu (falls under the jurisdiction of Chennai Regional Centre) completed the program of study after seeking readmission and received the Certificate from Bangalore Regional Centre (Karnataka). While the reason for such a wide variety of choices availed of by the learner is itself an area of research, the mobility across the Regional Centre poses a challenge for consolidating Records of Passed learners based on the Convocation Data available in a specific Regional Centre for that particular Regional Centre. However, this Challenge paved the way for centralised maintenance of records of passed-out learners and to prevail upon the concept of Regional Centre identity within the entity of the parent Institution (in this case IGNOU).

Flexibility

IGNOU provided flexibility to the learners to receive the Certificate which they have earned at any of the Regional Centres where the Teleconvocation was held or at New Delhi or by Post (In absentia). The University also took the effort to send the Certificate to the address of the learner if the learner did not attend at any of the Convocation venues. With such flexibility inbuilt within the system, it remained a challenge to trace the entry-exit point in terms of the Regional Centre. At times this facility of flexibility was misused by false representation stating the non-receipt of the Certificate and that too after a lapse of a period-which gave the benefit of the doubt to the learner and projects as if the system was at fault.

Mode to Receive the Certificate Irrespective of the Place of Enrolment

The University permitted the learner either to come in person or to receive the Certificate by Post (In-absentia). However, in either of the cases, submission of the application form with the requisite fee is mandatory. Many a time, social commitments, personal engagements, and job assignments of the passed out learner do make them prefer to receive the Certificate in-absentia rather than by coming in person. Even in practice, it has been a common phenomenon for the learners to leave the venue after collecting the certificates or coming in person to the Regional Centre after the conduct of the Convocation to receive the same.

This analysis was to fulfill the Tenth objective of the Study- To list the Challenges faced in tracing the Recipients of the Certificates in a convocation at Regional Centre Chennai.

Findings of the Study

The findings of the Study were as given below:

1. The enrolment cohort served as an indication of the presence of learners who had successfully completed the Programme of study within the minimum time period and those who have stretched beyond the maximum time period prescribed by the University for the Programme of study, in which the learner had enrolled.

2. The maximum number of years taken for completion of the programme evident from the year of enrolment and the year of receipt of the Certificate in a Convocation year ranged from 8 to 20 years. The maximum years of retention of the Learners in the Distance Learning System (DLS) of IGNOU from the point of enrollment into the Programme and the receipt of the Certificate in a Convocation year ranged from 8 to 20 years.

3. The Management Programme (MP) and the Bachelor in Education (B.Ed) programme, both of which are based on the entrance exam, were the prominent programmes in the Convocation

on the basis of the highest number of recipients of the Certificate in a Convocation year.

4. There was a consistent improvement in the performance of the learners. From the Convocation year 2007 onwards, the minimum division secured was Second and the maximum division secured was First with Distinction.

5. The cumulative Data for the 16 years of convocation revealed the highest number of successfully completed were those who reside outside Chennai followed by those who reside in Chennai and lastly by those who reside outside Tamil Nadu.

6. The presence of the maximum 11 and a minimum of two Term End Examination (TEE) sessions in a convocation year were noted. The frequently occurring Oldest TEE session was that of December and the Recent TEE session was that of June.

7. The highest number of Successful learners while considering the individual convocation years and cumulatively for all the 16 convocation years (1995 to 2010) was in the Post Graduate Degree Programmes.

8. The methodology adopted for consolidating the records in a convocation year involve indexing the data available in FoxPro (Database Package) on the basis of enrolment number of the learner followed by categorisation of the Programmes. Computer indexing coupled with cateogorisation facilitates in manual segregation of the Certificates of a learner with multiple exits as in case of the modular programmes like Computer, Engineering and Management Programme.

9. The Challenges of tracing the Recipients of the Certificates in a convocation year were 1. Change in Address for communication; 2. Mobility across the Regional Centres; 3. Flexibility; and 4. Mode to receive the certificate irrespective of the place of enrolment.

Suggestions for Further Research

The following are being proposed as suggestions for further research:

1. Tracer studies can be conducted to know the utility of the education secured by the Gold medalists

2. Functioning of the Alumnae Chapter Pin code wise, which make play a role in the social actions in the nearby society.

3. Utility of the education gained by the successfully completed learners.

4. Performance of the learners in a particular programme offered by IGNOU enumerating the causative factors affecting/effecting the performance of the learners.

Limitations of the Study

The factors that are beyond the researcher's control and that may affect the results of the study or how the results are interpreted is given as the limitations of the Present Study. The limitations of the present Study are the following:

1. Due to the failure of complete entry of the data pertaining to the successfully completed learner results might have to be arrived on the basis of the available valid frequencies.

2. All the learners who had enrolled in Chennai Regional Centre and have successfully completed the programme of Study for which they have enrolled would not have opted to attend the convocation at Chennai Regional Centre.

3. The data available with the Chennai Regional Centre does not include those who have opted to receive the Degree certificate "In absentia".

4. The Convocation data does not contain the records of the Recipients of the Certificates for the Certificate programme from the year 2007, as the Certificates were not available for distribution in the Tele-Convocation but are sent directly to the learners by Post.

Delimitations of the Study

The factors that affect the study over which the researcher generally does have some control are given as the delimitations of the Present Study. The delimitations of the present Study are the following:

1. In order to assure manageability of the data available, the study focused on the areas which fall within the scope of the study.

2. The content of the data used for the study was that as received by the IGNOU Regional Centre Chennai, and are within the approachability to the investigator for use in the study as primary source of data.

Conclusion

Education pursuit has the capability to facilitate mobility (Vertical/Horizontal) and ensure benefits (Tangible and Intangible) at an unexpected time. Education is considered as an asset in many societies. The myth about the Distance Education system (DES) has been nullified with its credibility established.

Khan (1999) opines that Open and distance learning is not supplementary, complementary or alternative to the conventional system, but is part of the evolution of new methodologies in teaching and learning. Completion of the Programme of study enrolled has more significance than mere enrollment into a Programme of study both for the Institution and the learner. The present study, which analysed the convocation data as available in Regional Centre Chennai threw light upon the various Cohort of Enrolment and Years taken for completion, Prominent programmes, Division secured, Geographical spread, Spread of Term-end Examination (TEE), the methodology adopted for consolidating the records in a convocation to ascertain the award of multiple degree and the Challenges of tracing the Recipients of the Certificates in a convocation.

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Lesson from Science: Insights for a Bright Future

Sanjay Behari, Director, Sree Chitra Tirunal Institute for Medical Sciences and Technology, Thiruvananthapuram and President, Medical Assessment and Rating Board, National Medical Commission delivered the Convocation Address at the 38th Convocation Ceremony at the Sri Ramachandra Institute of Higher Education and Research, Chennai on December 11, 2024. He said, "The deeply engrained thought that this is your institute whose name you will represent throughout your lives, in whatever endeavors you undertake, and in every thought, word, and deed, is the over-riding factor that decides the success of your institute. You must never let go of this deep all-encompassing bond that you have notionally and subconsciously established with your institute. This firm belief is and will be responsible for your eminence as well as that of your institute." Excerpts

I am grateful to Shri V. R. Venkataachalam, Honourable Chancellor, Dr. Uma Sekar, Hon. Vice Chancellor, Dr. Mahesh Vakamudi Pro-Vice Chancellor, Sri Ramachandra Institute of Higher Education and Research, and the fraternity of this revered institute for having invited me. I congratulate all the graduands who are being awarded their degrees today. I congratulate the prize winners of the batch for attaining the position of being the "best among equals" through their extra hard work and dedication. I also congratulate the teachers, parents and siblings of the graduands for their immense contribution towards the success and accolades the degree awardees are achieving today.

I would like to share three fascinating lessons of science with you and the messages that emerge from them. All of them are true concepts and come from different branches of science.

The first Lesson comes from the Incremental work Carried out in the field of Astronomy.

Story of the Rainbow

We all know that the rainbow appears as a semicircle, having seven colours depicted by the acronym, VIBGYOR, which represents violet, indigo, blue, green, yellow, orange and red. All rainbows are actually full circles, but only an arc or semicircle is seen because the beholder is standing on the ground and the other half of the circle is cut oL by the horizon.

Newton was the first to discover that once the white sunlight has passed through the prism and has been refracted, it not only changes direction to shine onto the opposite wall, it also separates into seven colours showing the rainbow eLect. Joseph von Fraunhofer discovered that when the solar light is broken into the seven colours of the rainbow, the rainbow spectrum is always accompanied by black vertical lines in between at specific intervals.

Bunsen invented a gas burner that produced a clean, non-luminous flame that could be used to test the chemical composition of various substances. Bunsen and KirchhoL then used a prism to analyse the light emitted by substances heated in the Bunsen burner. They discovered that each chemical element produces a unique pattern of spectral lines. They realised that the absorption lines that appeared as black vertical lines on the rainbow spectrum, produced by the white light from the sun, were a result of the light energy being absorbed by specific elements of the sun. Thus, based on these lines, the composition of the sun and other stars in the galaxy may be determined. Doppler determined that galaxies moving away from us cause the Fraunhofer's black vertical lines to move towards the red side of the spectrum; and, one galaxy, the Andromeda galaxy, that is moving towards our galaxy, the milky way, and may collide with it one day, shows a blue shift of the Fraunhofer's black vertical lines. When one focuses on light spectrum emanating from one galaxy in space, based on the amount of shift of the absorption spectrum of the rainbow, one can calculate the relative velocities of these galaxies. Finally, after the proposal that light had a constant velocity, approximately 300,000 km per second, given by Einstein, it is now possible to determine how far the galaxies emitting red shift of the black absorption lines of the rainbow, are from us; and also, how far back in time that light is coming from. Thus, the history of the universe has been gauged from the simple rainbow that we all have observed from our childhood.

Every discovery and innovation is based on and is influenced by the work done by the preceding contributions to the knowledge pool. When does the work change from being only an incremental change to a really disruptive discovery? When the incremental changes reaches a point of criticality; and when the immense potential of the incremental discoveries and innovations starts benefiting mankind. Therefore, do not discard any idea that has suddenly come to you. Work with whole-hearted enthusiasm to take your idea to its final conclusion, based on your perception. Do not think that your inputs do not matter to others. Each one

of us has to go through the same thoughts of insecurity and the fear of failure to reach where we are supposed to reach. What overcomes these negative thoughts are two important and overriding beliefs: The first is, "I shall accept each aspect of my successes and failures with equanimity and enthusiasm"; and, "If a particular positive thought or idea has come to my imagination or dreams, it just requires my relentless pursuit to make the dreams come true.

Whatever one can imagine is true. Every important discovery or innovation is based upon incremental changes contributed by one's predecessors engaged in the same line of work; therefore, every contribution to that line of thought process, including that contributed by yourself, is invaluable to propel it forwards towards an incremental change.

The Second Lesson comes from the Mathematical principles of physics.

The Fourth Dimension

The fourth dimension starts with the premise that time changes based on the perception and position of the observer relative to the event. Any point in a three-dimensional space can be described by its three coordinates. If you want to go from one point to another, you can define the point by marking its three coordinates along the x, y and z axis. Based on this visualisation, you know the path to the next set of coordinates. If you open the page of a book, you can again define the sentence that you are reading in three dimensions using the same x, y and z coordinates. Based on these coordinates, your mind plans to reach the next set of coordinates, that is, the last sentence of that book. If you're focusing on a task in hand, again you can pictorially extrapolate it in terms of its three coordinates, as it gives a very good representation of your location at the start of the work, as well as focuses your mind on the envisaged coordinates at the completion of the work. While you were studying for your examinations, your mind was subconsciously picturizing the coordinates of this convocation that represents the completion of your course. Once you gets a mental picture of the coordinates, you can rehearse the steps of the task relative to those coordinates in your mind even before you start the actual task. Once the task can be broken up into solvable steps, it is possible to translate it into actual reality. This is because you have broken the task down into simpler component steps and are now visualising each step with your position at each step being defined by the representative three coordinates at that point. Thus, the combination of breaking down the components of a task into contiguous segments will facilitate the completion of the complex endeavour that you are undertaking.

However, we always forget the fourth dimension, that is time. If two friends have to meet at a point on a road, the definition of the space that you are supposed to reach based on the three coordinates is not enough. You also have to define the time at which you are likely to meet. If you want to meet at one point and yet you do not define the time, then you will both reach the same point, but at diLerent times, and not meet each other. On the other hand, if you decide the time and you do not know the exact coordinates, you know when you will meet; however, you will never meet each other because you do not know where to reach.

Never forget this fourth dimension! The X, Y and Z coordinates should also be accompanied by the fourth dimension: time. Therefore, whenever there is a task in hand, some realistic self- imposed deadlines help you in reaching a higher level of motivation and also helps you in completing your work. By including the fourth dimension of the deadline of time, even if the work does not get completed in the allotted time, it has helped you divide the work into its time- dependent component parts, based on the self-imposed deadlines that you have created for yourself.

Even in the moments of intense grief, failures and disappointments, factoring in the fourth dimension, *'time'*, helps you decrease the intensity of the reaction by spreading it over quanta of time. We have all often heard the statement "...and this too shall pass away."

The joining of coordinates of components of the task in focus with self-imposed deadlines of time really helps in the completion of the task that you have assigned for yourself.

The Third Lesson comes from a recent and Novel Discovery in Neuroscience and Medicine

The Changing Electrical Pulses of one Neuron

A neuron is a nerve cell that transfers electrical signals from one area of the brain to the other. Dendrites are branch-like extensions of a neuron whose job is to collect information from other neurons and to pass them to the body of the neuron, that further transmits the nerve impulse responsible for a coordinated action.

Normally these signals are regarded as an 'all or none" phenomenon and fire at a constant rate and frequency. However, very recently, new electrical signals have been detected between dendrites, known

as 'calcium mediated dentric action potentials (dCaAPs)'. These signals show a graded response; *they reach a peak at just the right level of input but become weaker with stronger inputs.*

This has several implications. Why does even an elderly person with a fading memory, or a very busy person who is constantly forgetting things, not forget the long-term relationships? Why does a seemingly formidable task appear relatively easier the more number of times you repeat it? And why, in times of personal stress and intense anxiety or anger, the ability to think straight and make prudent judgements disappears?

Perhaps the graded response of neuronal signals becomes established into well-defined patterns of electrical impulses in the brain. The longer you know someone, the more established this memory becomes. Despite the degrees of diLiculty the seemingly super-human task appears to oLer, the more number of times you address it and repeatedly practice it, the easier it seems to become, due to these established memory patterns in the brain. We have all heard the saying, "A genius is 99% perspiration and 1% inspiration".

Remember another aspect of the graded electrical signals of neurons; they become weaker with stronger inputs of the neuron but remain at a peak with an optimum input. The extremely strong inputs of anxiety and stress, therefore, weaken, the focused signals.

In times of stress, repeatedly training yourself by constant practicing the diLicult task over time helps you to think logically as well as coherently and also helps to suppress your strong emotional responses like anger and anxiety. Thus, anyone engaged in a stressful task, for example a pilot, soldier, Olympic athlete or a specialised surgeon, constantly practices and gathers experience. How do they control their anxiety and stress? By repeating and constantly visualising the stressful situation, they train themselves, so that when they finally encounter the visualised situation in real life, they have already rehearsed their reaction to it. Thus, they can utilise their internal stress to optimise their performance.

In biological terms, they are aligning their neuronal electrical impulses to an optimum firing. An optimum and an aligned electrical signal is ensured by constantly training oneself and by gaining valuable experience. This endeavour of constantly training and gaining valuable experience prevents the strong signals from emotive thoughts like anger and anxiety from emerging, as well as from suppressing the steady stream of task-oriented impulses. The consequence is that the optimised peak electrical signals to pursue a thought or an activity eLectively align themselves in the direction of positive action and are not suppressed.

Constantly training oneself, performing the recurrent visualisation of an anticipated stressful situation, and continually striving to gain valuable experience, align individuals to the task in hand, without allowing the negative influences of anger or anxiety to cloud their judgement.

Notional Concept of a University

I ask a strange question? What is Sri Ramachandra Institute of Higher Education and Research? What does it represent? Does it represent the beautiful campus that you have? Is it the set of buildings located in the campus? Is it the intelligent set of students inhabiting its colleges? Or is it the fraternity of faculty and staL members striving hard to maintain the exacting academic standards in teaching, training and research. Actually, in essence, the answer is both "all of the above" and "none of the above." It is undeniable that all the groups mentioned above constitute an integral part of your institute's fabric; however, none of them actually represents it in entirety, in its fundamental form. Let me qualify my statement.

Actually, Sri Ramachandra Institute of Higher Education and Research is a notional concept deeply engrained in the minds of every individual working here. Without this all-pervading fundamental thought that all of you belong to this revered institute, having personally resolved to follow its rules, regulations and precedence, as well as to carry its name forward to the best of your ability, this place loses its academic significance and notionally deteriorates into a conglomerate of irrelevant civil construction or crowds of people. Thus, the deeply engrained thought that this is your institute whose name you will represent throughout your lives, in whatever endeavours you undertake, and in every thought, word and deed, is the over-riding factor that decides the success of your institute. You must never let go of this deep all- encompassing bond that you have notionally and subconsciously established with your institute. This firm belief actually is and will be responsible for your eminence as well as that of your institute.

I wish all of you my very best wishes for your future.   ❑

CAMPUS NEWS

International Conference on Cross-cultural Encounters and Assimilation

A two-day Annual International Conference 'Cross-cultural Encounters and Assimilation: Representation of Western India in Writings in English' was organized by the Shah K S Arts and V M Parekh Commerce College, Rajasthan Association for Studies in English, Udaipur, Rajasthan from December 21-22, 2024.

The Chief Guest of the event was a Poet and Writer winner of the Sahitya Academy Award Padma Shree Sitanshu Yashaschandra Mehta. He said that for lasting peace in the world cultural harmony and natural assimilation are necessary. He said that encounters and conflicts in the name of religion and ethnic identities have always been a cause of violence. Attempts of forced assimilation are also not desirable. He described the conference of the Rajasthan Association in Gujarat as an example of assimilation.

The Key Speaker of the event, Prof. Santosh Das, Arts and Commerce College, Savli described the conference as a novel attempt to look at western India as a cultural unit. He said that people talk of south India, northeast, and east India as units for cultural and academic discourse but for the first time western India has been taken up as a unit for academic discussion. Poet and Activist, Prof. Kanjibhai Patel was the Guest of Honour. He raised several basic questions of identity and conflicts in the name of purity of race. He said that Western India suffered attacks from Huns, Kushaans, Mughals and Europeans. Assimilation also took place. Now it is difficult to ascertain the racial identity of individuals and therefore conflicts on that account are unnecessary. Prof S N Joshi's memorial Lecture organized every year in memory of the former President of the Association was delivered by Principal S N Iyer, Principal, Vadaj College, Ahmedabad. He talked about his own multicultural experience and described his family as an apt example of assimilation. Dr. Geraldine Sinyuye, Poet and Fiction Writer from Cameroon, Africa joined online and spoke on colonial dominance and the imposition of European culture on African people. She posed the question 'Which Culture'? to the issue of cultural assimilation. Dr. Hemendra Singh Chandalia, Vice President of the Rajasthan Association for Studies in English presented the concept note of the conference. He said that the role of literature is to build bridges across cultures and create harmony in a world torn by conflicts like Ukraine and Palestine. In the beginning, the Principal of the College Dr. Gopal Sharma 'Sahar' delivered the Welcome Address. Dr. K S Kang, General Secretary of RASE presented the report of the Association. The Chairman of Kapadwanj Kelwani Mandal, Dr. Harish H Kundalia presided over the inaugural function. Secretary of KKM Anant Bhai Shah also graced the dais. The inaugural function was conducted by Prof. Ambarish Panda, Organizing Secretary of the event. He read out the messages received from Prof. Rajul Bhargava, President RASE and Prof. Ranjana Harish, Gujarat University, Ahmedabad. Mr. Shane Desai, faculty member, Department of English offered a Vote of Thanks.

In the inaugural session Padma Shree Sitanshu Yashaschandra Mehta, chief guest of the conference and Dr. Gopal Sharma 'Sahar' were felicitated by Rajasthan Association for Studies for their lifetime contribution to the world of literature. Shah K S Arts and V M Parekh Commerce College and Kapadwanj Kelwani Mandal felicitated Prof. Hemendra Singh Chandalia, Vice President of Rajasthan Association for Studies in English for his contribution to the promotion of English studies in India.

In the Inaugural Session, the souvenir of the Conference and UGC CARE listed Journal of RASE were launched by the guests. Dr Sumer Singh's book 'English Studies in the Contemporary Era' was released. Palash Sharma's Novel 'Coming of Age' was also released. Palash Sharma is a student of third year B.A. Hons. English, M. S. University, Baroda. Similarly, Dr Hemendra Singh Chandalia's poetry collection 'When the Seeds Would Sprout' was also released.

During the Plenary Sessions, Dr. Khushwant Singh Kang, former Principal of Maharana Pratap Postgraduate College, Chittorgarh, Rajasthan

delivered his lecture. He delivered his lecture on 'Diverse Facets of Life Projected in Anita Desai's Works, *The Village by the Sea* and *Cry the Peacock'*. The session was Chaired by Prof. H S Chandalia. The second plenary was presented by Dr. K. Kannan Prasad of Loyola College, Chennai. He delivered his plenary lecture on 'How Controversial can a Fiction be to Become Popular? An Anatomy of 'Contro-Pop Fiction'. The session was Chaired by Prof. K S Kang.

There were twelve technical sessions in which a total of eighty-six papers were presented. Of those, four papers were presented online. There were interesting and thought-provoking deliberations in all these sessions of the event centering around the theme of the conference. Some of them were 'Reconstruction of Western India in the Works of Colonel James Tod', 'A Comparative Study of Vedic and Bhil Society', 'Caste and Patriarchy: Dalit Identity and Rejection of Bramhinical Traditions in the Works of Kusum Meghwal', 'Revival of Gandhi in 21stCentury: A Case Study of *Lage Raho Munna Bhai'*, 'A Cinematic Adaptation of the Movie *The Sabarmati Report',* etc.

The Rajasthan Association for Studies in English launched a new initiative at the conference. The General Secretary of the Association, Prof. K S Kang announced that a new chapter named Students Initiative Programme will be added in which students from Ist year B.A. to research scholars will be able to register for the one-time membership fee of Rs. 500. They will remain members till they are students. Separate activities will be started for students. A Committee headed by Dr. Gautam Sharma was formed to steer the programme. Other members of the Committee include, Dr. Narendra Pal Singh Panwar, Paresh Thakor, Shane Desai, Dipika Patel, Krunal Parmar, Satish Jhala, Ketan Parmar, Jiyanshi Desai, Shrashti Patel and Palash Sharma.

A creative writing session and cultural evening were organized in the evening**.** Principal, Dr. Gopal Sharma 'Sahar', Dr. Gautam Sharma, Dr. Hitendra Joshi, Dr. Hemendra Chandalia and Dr. Pramila Singhvi read out their self-composed poems. This was followed by a colorful programme of dance and singing in which the students of the college and a few delegates presented their performances. The programme was convened by Dr. Gautam Sharma.

During the Valedictory Session, Principal, Dr. Sam Kunniparampil was the Chief Guest of the Valedictory function. The session was chaired by Dr Harish Bhai Kundalia, President, Kapadwanj Kelavani Mandal. Mr. Rasik Bhai Patel, Vice President, Mandal also graced the dais. Dr. Parul Popat, Head, Department of English, Sardar Patel University, Vallabh Vidya Nagar was the Guest of Honour. Prof. S K Singh, Associate Dean, O P Jindal University, Raigadh, Chattishgarh addressed the conference online. Dr Hemendra Singh Chandalia, Vice President, Rajasthan Association for Studies in English delivered the Valedictory Address. The report of the conference was presented by the Organizing Secretary, Prof. Ambarish Panda. Principal of the college, Dr. Gopal Sharma 'Sahar' welcomed the guests. Shane Desai, faculty member of the Department of English proposed the Vote of Thanks. Dr. Suman Shelly, Sambalpur, Odisha and Dr. Subhash Nagarkar, Goa narrated their experiences of the conference. The session was convened by Dr. Gautam Sharma.

National Conference on Communications

A four-day National Conference on 'Communications' is being jointly organized by the IIT Delhi, IIIT Delhi, IIT Jammu and IIT Jodhpur from March 06-09, 2025 at the Indian Institute of Technology, Delhi, New Delhi. The researchers in academia and industry, graduate research students, standardization bodies, regulatory agencies, and telecom policy experts may participate in the event. The Areas of the Event are:

Communications

- Communication Theory and Systems.
- Information Theory and Coding.
- Wireless and Mobile Communications.
- Physical-layer Security.
- New Generation Multiple Access.
- Intelligent (and holographic) Surfaces.
- Non-Terrestrial Communications.
- Underwater Communications.
- Smart Grid Communications.
- Machine Learning for Communications.
- Quantum communications and computing.
- Molecular, Biological and Multiscale.
- Communications.
- Quantum Communications.

Networks

- 5G/B5G/6G/next-generation Networks.
- Wireless and Wireline Networks.
- Quantum Networking.
- Big Data, Machine Learning for Networks.
- Biological Networks.
- Cloud & fog/edge Computing and Networking.
- Complex Networks/ Social Networks.
- Cyber-physical systems / IoT.
- Network Security and Privacy.
- Sensor and Ad hoc Networks.
- Software-defined Networking.
- Network Function Virtualization.

Signal Processing

- Adaptive Signal Processing.
- Signal processing for communications.
- Biomedical Signal Processing.
- DSP Implementation and Architecture.
- Graph Signal Processing.
- Image and Multimedia Signal Processing.
- Secure Signal Processing.
- Pattern recognition and machine learning.
- Quantum Signal Processing.
- Speech, Audio and Language Processing.
- Sparse Signal Processing.

RF and Optical

- Microwave Devices and Meta Surfaces.
- Antennas and Phased Arrays.
- Microwave/mm-Wave/THz Communication and Imaging.
- Optimization and Machine Learning Aided Design of Antennas and Microwave Components.
- Radars and Remote Sensing.
- Simultaneous Lightwave Information and Power Transfer.
- Optical Communication and VLC.
- Optical Network Security.
- Free-space Optical Communication Systems.
- Optical Interconnect Technologies.

For further details contact, the Organising Secretary, Indian Institute of Technology, Delhi, New Delhi. E-mail: *ncc25@ee.iitd.ac.in.* For

updates, log on to: *http://ncc2025.iiitd.ac.in / http://www.ncc.org.in/.*

International Conference on Advancements in Material Science for Sustainable Development

A three-day International Conference on 'Advancements in Material Science for Sustainable Development' is being organized by the Department of Physics and Astrophysics, Central University of Haryana, Mahendergarh, Haryana from February 13-15, 2025. The event stands as a pivotal platform for scholars, researchers, and industry professionals to converge and explore the latest advancements in materials science with a focus on sustainable development. This academic forum catalyses the exchange of innovative ideas, research findings, and collaborative initiatives aimed at addressing contemporary challenges. Attendees will have the opportunity to network with leading experts and gain insights into cutting-edge research. The major topics of the event are:

- Nanoscience and Nanotechnology.
- Smart and Functional Materials.
- Energy and Environmental Applications.
- Optical Materials, Nanophosphors, and Photonics.
- Sustainable and Green Technology.
- Sensors and Actuators.
- Nano Electronics and Nano Catalysis.
- Nuclear Materials.
- Polymers and Composites.
- Thin Films.
- Magnetic and Ferroelectric Materials.
- Semiconductor and Optoelectronics.
- Nonlinear Analysis and Applications.
- Computational Physics and Materials Science.
- Ion Beam Induced Modification in Materials.
- Materials for Food Technology and Packaging.
- Interdisciplinary Research for Sustainability.

For further details, contact the Organising Secretary, Department of Physics and Astrophysics, Central University of Haryana, Jant-Pali, Mahendergarh, Haryana-123031, Mobile No: 07217783644, 09811514070, and 09650122015, E-mail: *aims2025.physics@cuh.ac.in.* For updates, log on to: *www.aims2025.cuh.ac.in/events/*

AIU News

Faculty Development Programme on Educational Leadership and Effective Decision Making

A five-day Faculty Development Programme on 'Educational Leadership and Effective Decision Making' was organized by the Association of Indian Universities (AIU), New Delhi–Academic and Administrative Development Centre (AADC)–Apeejay Stya University (ASU), Gurugram from October 21-25, 2024 through online mode. Ms Ruchira Kamboj, Former IFS Officer was the Chief Guest and Ms Ranjana Parihar, Joint Secretary, AIU was the Guest of Honour of the session. The Vice Chancellor, Prof. Vijay Vir Singh, ASU delivered the inaugural speech. He highlighted the importance of conducting such a programme at the university level in collaboration with AIU-AADC. The Chief Guest emphasized the upgradation of the faculties and how it can impact the global education scenario and set the tone for FDP. The Guest of Honour, Ms Ranjana Parihar suggested the impact of the AIU-AADC programme.

Prof. Sheila Rai, Former Member, Indian Council of Social Science Research (ICSSR), New Delhi. She made a preposition on the concept of 'Feminism in Educational Leadership' and shared various real-time examples to elaborate on the different aspects of leadership.

Prof. Sandeep Sancheti, Vice President of Elsevier, India delivered the session on 'Building Collaborative Culture'. He emphasized the importance of open house sessions that facilitate active engagement among faculty, students, and higher management. Prof. Sancheti shared key principles that have proven effective over time, urging educators to 'reform, perform, and transform' to foster an evolving educational environment. Prof. Sancheti highlighted new approaches to learning, including blended teaching methods and a shift toward multidisciplinary studies, which are central to fostering a well-rounded education.

Prof. (Fr.) S Xavier, SJ, Principal, St. Xavier's College, Jaipur, an expert in the field of organizational behavior and leadership brought valuable insights on the importance of fostering collaboration within educational institutions and beyond. The session covered practical strategies to foster collaboration by encouraging both formal and informal communication between colleagues. He suggested that institutes/ universities should create recognition systems that incentivize teamwork and collective achievements.

The next session was conducted by Dr. Sanjay Kumar, Adjunct Faculty, Duke University, Durham. Dr. Kumar's extensive experience across government, private sector, academia, and international organizations positioned him as an invaluable resource for attendees seeking to enhance their decision-making skills in educational contexts. Dr. Kumar provided a comprehensive overview of various decision-making models, emphasizing the importance of a structured approach. A significant portion of the session was dedicated to discussing the implications of the New Education Policy (NEP)- 2020 for educational institutions. Dr. Kumar elaborated on how NEP- 2020 aims to transform the educational landscape in India, focusing on holistic and multidisciplinary approaches. Dr. Kumar stressed the significance of considering multiple perspectives when making decisions. The session also explored the growing role of Artificial Intelligence (AI) in research and decision-making processes.

The next session was started with Ms Rekha Bharadwaj, ACC-certified Coach by the International Coaching Federation and a professional member of the Indian Society of Behavioural Sciences and the Indian Society for Training and Development. One of the session's key elements was a group task where participants were assigned a case study requiring a decision. The group members had to select a leader or moderator from amongst themselves to guide the decision-making process.

Prof. Poonam Batra, Professor of Education, during her session, guided the participants through a nuanced exploration of educational leadership philosophies and highlighted various approaches that have evolved over time. Prof. Batra discussed multiple paradigms of leadership, emphasizing a shift from traditional leadership approaches toward shared and distributed leadership. Prof. Batra also

explored the key challenges facing educational leadership. She emphasized the importance of moving the development focus from individual achievement to collective responsibility, urging leaders to foster an environment that upholds both self-regulation and respect for others' academic freedoms.

Prof. Alok Saklani presented an engaging session that drew from real-life leadership examples across business, economic, political, and spiritual arenas. In the next session, Prof. D N Bajpai emphasized the significance of adapting educational approaches to cater to diverse learners, particularly highlighting distinct strategies for slow learners and fast learners. Recognizing the importance of representation, with the story of Rani Durgawati. Prof. Bajpai also advocated for syllabus reform, encouraging the inclusion of indigenous knowledge and ancient texts to enrich the curriculum. His perspective underlined a balanced approach to modern education that respects traditional knowledge systems, aiming to cultivate a more inclusive and culturally aware educational framework.

Dr. Prabhat Pankaj explained the role of brain parts like the amygdala and neurons in the experience of happiness. He shared that due to the cognitive basis of mind, we focus on 80% of negative thoughts and only 20% of positive thoughts. The mind plays a vital role in experiencing happiness. He used every impactful video to make this concept clear to the audience.

Before the valedictory session, a feedback session from participants was conducted where participants shared their feedback that the programme was very well curated and all sessions were amazing. This was followed by the overall FDP feedback by Dr. Shatakshi Srivastava, Nodal Officer of the event. The Valedictory Address was delivered by the Vice Chancellor, Prof. Vijay Vir Singh, and Prof. Sasi Gopal Menon, Dean, School of Design and Visual Arts who shared their viewpoints about educational leadership and how the participants should share the learnings with others as well so that the concept can percolate through the faculties of Higher Education Institutions.

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Announcement

Special Issue of 'University News'

A **Special Number of University News** on the theme *'Envisioning Future Higher Education: The Pivotal Role of India'* is being brought out on the occasion of the **AIU Centenary Celebrations** and **AIU Annual General Meet and National Conference of Vice Chancellors'-2025 in March 2025.**

The **Special Issue** will cover the articles of eminent educationists on the afore-mentioned theme. Readers of the University News are also invited to contribute to the Special Number by submitting papers/articles on the above theme by **February 15, 2025**. The papers will be published in the Issue subject to the approval of the Editorial Committee of the University News. The contributions are invited on the following Subthemes:

Technological Integration in Higher Education

- Blended Learning Models.
- Integrating Emerging Technologies like AI, Virtual and Augmented Reality in the Learning Process.
- Cyber Security and Data Privacy in Higher Education Institutions.

Leadership and Governance in Higher Education

- Developing Academic Leadership.
- Governance of Public and Private Universities.
- Autonomy and Accountability in HEIs.

Rethinking Assessment and Evaluation

- Innovative Assessment Methods and Experiential Learning.
- Viability of One Nation One Exam System.
- Continuous Comprehensive Assessment.

Globalisation and Internationalisation

- Strategies for International Collaboration.
- Global Classrooms (Attracting International Faculty and Students).
- Challenges and Opportunities in Internationalisation of Higher Education.

Equity, Diversity and Sustainability

- Incorporating IKS in Curriculum and Pedagogy.
- Catering to Equity and Diversity on Campuses.
- Creating Green and Sustainable Campuses.

Any Other Relevant Subthemes

Guidelines for contributors are placed on the AIU Website. Manuscripts may be sent to the Editor, University News, Association of Indian Universities, AIU House, 16 Comrade Indrajit Gupta Marg (Kotla Marg), New Delhi- 110 002 through E-mail: *ramapani.universitynews@gmail.com* with a copy to: *universitynews@aiu.ac.in* on or before **February 15, 2025**.

THESES OF THE MONTH

SOCIAL SCIENCES
A List of doctoral theses accepted by Indian Universities
(Notifications received in AIU during the month of November-December, 2024)

Commerce

1. Arora, Shivani. **Ramifications of digital marketing in India**. (Dr. Dr.Harleen Kaur), Department of Commerce, Tantia University, Sri Ganganagar.

2. Ayesha, Samreen. **Risk and return analysis of socially responsible equity investment for optimum portfolio**. (Dr.Karthigai Prakasam C), Department of Commerce, Christ University, Bangalore.

3. Frank, Marvin Paul. **Adoption and usage of artificial intelligence in food processing industries**. (Dr. Ginu George), Department of Commerce, Christ University, Bangalore.

4. Gurav, Swati Mukundbhai. **Performance evaluation of selected mutual funds in India**. (Dr. Prashant Joshi), Department of Commerce, Gujarat University, Ahmedabad.

5. Mhatre, Chandrakala Kaluram. **Cost benefit analysis of rehabilitation measures implemented by CIDCO for Project Affect People PAP: A case study of North Node of Navi Mumbai**. (Dr. Dipti P Deshpande), Faculty of Commerce and Management, S.N.D.T. Women's University, Mumbai.

6. Pawar, Deepthi S. **Environmental reporting practices: Evidence from Indian commercial banks**. (Dr. Jothi M), Department of Commerce, Christ University, Bangalore.

7. Reena Kumari. **Potential of indigenous knowledge towards attainment of Sustainable Development Goals: A study of Haryana**. (Dr.Bhavna Sharma), Department of Commerce, Bhagat Phool Singh Mahila Vishwavidyalaya, Khanpur Kalan.

8. Shetty, Lakshmi. **Managing sustainability in perishable food supply chains: A case of mango from farm-to-table**. (Dr. Shefali Srivastava), Department of Commerce, Christ University, Bangalore.

Economics

1. Kalsi, Kiranjit Kaur. **An economic study of micro enterprises in Mumbai with special reference to metal tools and die making enterprises**. (Dr. Sanjay Kumar Phad), Department of Economics, S.N.D.T. Women's University, Mumbai.

2. Monika. **Economic burden and productivity loss of employees with lifestyle diseases in sedentary occupations during pandemic**. (Dr.Viji B), Department of Economics, Christ University, Bangalore.

3. Nandaniya, Pushpaben Kanabhai. **Economic study of the members of rural milk producers co-operative society in Anand District**. (Dr. N K Sonara), Department of Economics, Saurashtra University, Rajkot.

4. Parmar, Manisha Premjibhai. **An economic study of income and investment of women primary teachers in the context of Rajkot District**. (Dr. N K Sonara), Department of Economics, Saurashtra University, Rajkot.

5. Saina Baby. **Determinants and impacts of mergers and acquisitions in the drugs and pharmaceutical industry in India**. (Dr. Adaina K C), Department of Economics, Christ University, Bangalore.

Education

1. Alfeno, Marie S. **Educational achievement of socially and economically disadvantaged children from urban slums of Bengaluru City**. (Dr.Prakasha G S), Department of Education, Christ University, Bangalore.

2. Anto, Titus. **In-service teachers' differentiated instructional strategy and students' reflective thinking and empowered learning**. (Dr. Peter M V), Department of Education, Christ University, Bangalore.

3. Bhatia, Khushi. **Design, training, and implementation of a new Individualized Education Plan (IEP) format for special educators and students with intellectual disabilities at selected special schools**. (Dr. Pramod Kumar M P M), Department of Education, Christ University, Bangalore.

4. Chatterjee, Sahani. **Effect of museum visit intervention on learning and attitude towards history**. (Dr. Prakasha G S), Department of Education, Christ University, Bangalore.

5. Diwakar, P. **Effect of phonological and phonetic intervention on proficiency in English pronunciation and oral reading among Bengaluru teacher trainees**. (Dr. Kennedy Andrew Thomas), Department of Education, Christ University, Bangalore.

6. Nisha, C K. **Effect of cooperative learning strategies on self-directed learning and reflective thinking of pre-service teachers**. (Dr. Prakasha G S), Department of Education, Christ University, Bangalore.

7. Srivastava, Kiran. **Research competence of university teachers in relation to organisational ethos and research culture**. (Dr.Prakasha G S), Department of Education, Christ University, Bangalore.

8. Syama, S. **Mind-set in mathematics learning: role of teacher-student interaction on student engagement, wellbeing and achievement**. (Dr. Jacqueline Kareem), Department of Education, Christ University, Bangalore.

9. Trixy, Elizabeth John. **Receptivity to change, work motivation, and teacher engagement among secondary school teachers**. (Dr. Benny Thomas and Dr. Sudhesh N T), Department of Education, Christ University, Bangalore.

Home Science

1. Siddhu, Meeta. **Sustenance of Zardozi embroidery of Bhopal through documentation, training and product development**. (Prof. Anjali Karolia), Faculty of Family and Community Sciences, M S University of Baroda, Vadodara.

Law

1. Goel, Ayush. **Comparative study of product liability and data confidentiality in case of intermediaries with special reference to India and the European Union**. (Dr.Gurudev Sahil), Department of Law, Christ University, Bangalore.

2. Garg, Neha. **Indian approach to international commercial and investment arbitration vis-à-vis global arbitral institutes: A critical analysis**. (Dr .Fincy Pallissery), Department of Law, Christ University, Bangalore.

3. Jani, Chaitali Utkarsh. **A study on regulating artificial intelligence in India: Legal challenges under intellectual property laws**. (Dr. S P Rathor), Department of Law, Gujarat University, Ahmedabad.

4. Kaneez Fatima. **Role of education in eradication of child labour in Kanpur (U.P)**. (Dr. Praveen Kumar Mall), Faculty of Juridical Sciences, Rama University, Kanpur.

5. Pundir, Subhrangana. **Sexual and reproductive autonomy of married women in India: A socio-legal study**. (Dr. Praveen Tripathi), Department of Law, Dharmashastra National Law University, Jabalpur.

6. Roy, Binota. **Medical negligence in India: A critical appraisal of the approach under the Consumer Protection Law**. (Prof. Sandeepa Bhat B), Department of Law, The West Bengal National University of Juridical Sciences, Bidhannagar, Kolkata.

7. Sunandini. **Trafficking in women and children for sexual exploitation and response of criminal justice system: Challenges and issues**. (Dr. Manwendra Kumar Tiwari), Department of Law, Dharmashastra National Law University, Jabalpur.

8. Vines. **The conflicts that arise in International Trade Agreements and their solutions: an analytical study**. (Dr. Saurabh Garg), Department of Law, Tantia University, Sri Ganganagar.

Library and Information Science

1. Maheta, Shivangkumar Bhaskarbhai. **Significance of the WEB 2.0 technology in the services of the academic libraries: Proposed model for the university libraries of Gujarat State**. (Dr.Mayank Trivedi), Department of Library and Information Science, M S University of Baroda, Vadodara.

Management

1. Ajmera, Neha. **Effect of multiple intelligence quotient on the performance of healthcare sales professional in Southern Rajasthan**. (Dr.Jyoti Dashora), School of Management Studies, Sangam University, Bhilwara.

2. Gupta, Vishal. **A study of purchase behaviour of females with reference to plus-size fashion apparel in selected cities of Gujarat**. (Dr. Daisy Kurien), Department of Management, Indus University, Ahmedabad.

3. Mulasi, Ankita. **Impact of behavioural biases, emotional intelligence and financial literacy on financial behaviour**. (Dr. Jain Mathew), Department of Management, Christ University, Bangalore.

4. Nero, Alex. **Tertiary packaging issues and their influence on repurchase intention and loyalty of customers towards e-retailers**. (Dr.Sreedhara R), Department of Management, Christ University, Bangalore.

5. Rana, Jasleen. **Plus size brands: A study of consumer attitude and brand preferences with respect to readymade apparel**. (Dr. Deepti Dabas Hazarika), School of Leadership and Management, Manav Rachna International Institute of Research and Studies, Faridabad.

6. Sabharwal, Neha. **An empirical study of influence of social media on customer patronage in selected restaurants of Southern Rajasthan**. (Prof. Karunesh Saxena), School of Management Studies, Sangam University, Bhilwara.

7. Singh, Pooja. **A study of service quality of e-learning platforms in India**. (Dr.Indu Shukla), Faculty of Commerce and Management, Rama University, Kanpur.

8. Unadkat, Parita Krishnakant. **An empirical analysis of employee engagement on employee performance**. (Dr.Mamta Brahmbhatt), Department of Management, Gujarat University, Ahmedabad.

9. Vivekanand, Jayadevi. **An empirical study of retired Indian naval officers second career success with reference to the Indian Navy Foundation – Maharashtra Region**. (Dr. Seema Sant), Faculty of Commerce and Management, S.N.D.T. Women's University, Mumbai.

Psychology

1. Bhuvana, Manohari N. **Mindfulness-based emotional intelligence: Impact on psychological well-being of school teachers**. (Dr. Jayasankara Reddy K), Department of Psychology, Christ University, Bangalore.

2. D'souza, Patricia. **Impact of leadership styles of women managers working in education and healthcare sectors on psychological vulnerability and spirituality**. (Prof. Nilesh Thakre), Department of Psychology, S.N.D.T. Women's University, Mumbai.

3. Dhole, Vaishali Suhas. **Palkanchey aatamvastvikikaran shikshan ani palyanchey mulye samarthey niyantaran kendre ani bhavnik budhimatecha abhyas**. (Dr. Ramesh Pathare), Department of Psychology, S.N.D.T. Women's University, Mumbai.

4. Ete, Leeyir. **Role of family structure in interpersonal trust and romantic relationship among the Nyishi Tribes**. (Dr. Dharmeshwari Lourembam), Department of Psychology, Rajiv Gandhi University, Itanagar.

5. Gajjar, Dhartiben Naginbhai. **Mindfulness psychophysical stress and mental health of pregnant women in the context of involvement in Tapovan Centre of Children's University**. (Dr. Ashok N Prajapati), Department of Psychology, Children's University, Gandhinagar.

6. Gopinath, Sreeja. **A self-reflective and empathy based environmental education intervention to enhance environmental values and knowledge of preadolescents**. (Dr. Aneesh Kumar P), Department of Psychology, Christ University, Bangalore.

7. Jinashree, R. **Process of emotion regulation in relation to attachment and mindfulness traits during Gottman's dreams-within-conflict intervention**. (Dr Manjula V), Department of Psychology, Christ University, Bangalore.

8. Joshi, Shivani Ruchik. **Bereavement phenomenon: An investigation of psychological correlates and efficacy of mindfulness mediation**. (Dr.Kamayani Mathur), Department of Psychology, Gujarat University, Ahmedabad.

9. Liya, Maria Celine. **Road-traffic congestion in Bengaluru: Psychological and social consequences**. (Dr. Santhosh K R), Department of Psychology, Christ University, Bangalore.

10. Narvekar Hamangi, Narayan. **Efficacy of canine-assisted therapy on social competence among individuals with autism spectrum disorder**. (Dr. Uma Krishnan), Department of Psychology, Christ University, Bangalore.

11. Parmar, Rinalben Mukeshbhai. **The role of parental encouragement number of children in family and gender on youth problems and aggression among college students**. (Dr. B D Dhila), Department of Psychology, Children's University, Gandhinagar.

12. Satyam. **Psychological well-being and depression: The role of emotional intelligence, mindfulness, brooding and worry in depression patients**. (Dr. Megha Arya), Department of Psychology, IIS University, Jaipur.

13. Viswanath, Parvathy. **Opportunity recognition, career decision-making, self-efficacy and social entrepreneurial intention among higher education students**. (Dr. Aneesh Kumar P), Department of Psychology, Christ University, Bangalore.

14. Vijayapriya, C V. **Effectiveness of internet-delivered dialectical behavior therapy skills training on perceived cognitive functions among college students with borderline personality traits: A non-randomized controlled trial**. (Dr. Rameshbabu Tamarana), Department of Psychology, Christ University, Bangalore.

Political Science

1. Panggeng, Lucia. **The rights of children to Free and Compulsory Education Act 2009: A comparative study of East Siang District and Kurung Kumey District, Arunachal Pradesh**. (Dr. Punyo Yarang), Department of Political Science, Rajiv Gandhi University, Itanagar.

Social Work

1. Pious, Anu Anns. **Sexual functions and sexual satisfaction among non-working married women in Bengaluru**. (Dr. Amaresha C), Department of Social Work, Christ University, Bangalore.

2. Sumiya Din. **Women artisans in Kashmir: A study of their experiences and livelihoods in handicraft sector**. (Dr. Saima Farhad), Department of Social Work, University of Kashmir, Srinagar.

3. Yajek, Kholie. **Correctional services in district jails of Arunachal Pradesh: A social work perspective**. (Dr. K P Singh), Department of Social Work, Rajiv Gandhi University, Itanagar.

Sociology

1. Jindal, Nikhita. **Experience and agency of children with intellectual disabilities in schools: An ethnographic study in Haryana, India**. (Dr. Sudhansubala Sahu), Department of Sociology, Christ University, Bangalore.

2. Karimi, Rebwar. **Community consciousness and the construction of social honour: A study among the Kurds in Finland**. (Dr. Om Prakash L T), Department of Sociology, Christ University, Bangalore.

3. Kaushik, Priyanka. **Online higher education: A mixed method study of Delhi NCR, India**. (Dr. Princy Thomas), Department of Sociology, Christ University, Bangalore.

Tourism & Hospitality Services

1. Jose, V Sejana. **Environmental sustainability in tourism: Developing green service transportation initiatives in Karnataka**. (Dr.Bindi Varghese), Department of Tourism and Hospitality Managaement, Christ University, Bangalore.

2. Sandhya, H. **Destination resilience and smart tourism ecosystem: A destination management framework for competitiveness**. (Dr.Bindi Varghese), Department of Tourism Management, Christ University, Bangalore.

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Solapur Zilla Samajseva Mandals
Santosh Bhimrao Patil Arts, Commerce & Science College, Mandrup Tal. South Solapur, Dist-Solapur-413221

(Affiliated to Punyashlok Ahilyadevi Holkar Solapur University, Solapur)

Non-Minority (AIDED)

WANTED

Applications are invited from eligible candidates for the following post:

Sr. No.	Designation	Total Vacant Posts
1	Principal	01

Note :- For detailed information about post, qualifications and other terms and conditions, Please visit University **website:www.sus.ac.in.**

Place: Mandrup

Date :

Secretary
Solapur Zilla Samajseva Mandals
Solapur

ALPHONSA COLLEGE PALA
Arunapuram P.O., Pala
Kottayam Dist., Kerala - 686574
E-mail:acpappointment@gmail.com

No: A1-1066/2023   Dated: 30/12/2024

NOTIFICATION

Applications are invited for the post of Assistant Professors in Alphonsa College Pala. Age and qualifications as prescribed by the rules and regulations of UGC/State Govt/Mahatma Gandhi University, Kottayam. Application forms and other information is available from the college website **www.alphonsacollege.edu.in** . Completely filled application with the receipt of application Fee should reach the college office within 30 days of this notification.

Subject	Quota
Chemistry (Re-notification)	PWD quota (One post)
Economics	PWD quota (One post)
Political Science	Community quota (One post)

Vacancy in chemistry reserved for PWD category B. Deaf and Hard of hearing Vacancy in Economics reserved for PWD category C. Locomotor disability including cerebral palsy, leprosy cured, dwarfism, acid attack victims and muscular dystrophy

In chemistry eligible candidates under the category mentioned have not applied, rotation as per G.O.(Ms) No:242/2022 H.Edn dated 18/05/2022 and G.O.(Ms) No:684/2023 H.Edn dated 08/12/2023 will be followed. As this is the third advertisement in the above category for the same post, if no applications are received, the candidates applied from open category will be considered.

Account No: 19320200001510
IFSC Code : FDRL 0001932
Branch : Kottaramattom.

Place: Pala   (Sd/-) Manager

संत लौंगोवाल अभियांत्रिकी एवं प्रौद्योगिकी संस्थान
Sant Longowal Institute of Engineering and Technology
(भारत सरकार के अधीन सम विश्वविद्यालय)
(Deemed to be University under MoE)
Longowal–148106, Distt. Sangrur, Punjab
Tel. No. 01672-253 108

Admissions in Ph.D. programmes for Year-2024-25

Ph.D. admissions are open in the various disciplines of the Engineering, Science, Management & Humanities under the following categories:

1. Full-time scholars with institute fellowship.

2. Full-time scholars without institute fellowship.

3. Part-time scholars.

4. Ph.D. Executive (Part-Time) programme for working professionals.

Closing date: 03/02/2025; Date of written test: 05/02/2025; Date of interview/presentation: 06/02/2025; Date of Counseling: 07/02/2025.

For details of eligibility, please visit institute website: www.sliet.ac.in

DIRECTOR

ST. PIUS X COLLEGE

Rajapuram (P.O.), Kasaragod (Dist.) Pin- 671532, Kerala

Ph: 8281925726 ● email: stpius@gmail.com
URL : www.stpius.ac.in
NAAC Accredited with A Grade

(A Christian Minority institution under the Archdiocese of Kottayam) Aided College affiliated to Kannur University)

WANTED PRINCIPAL

Applications are invited from eligible candidates for the post of Principal, St. Pius X College, Rajapuram under open merit. Applicants from institutions other than St. Pius X College should belong to any of the disciplines like Microbiology, Economics and Commerce. Qualifications, age, scale of pay and other conditions for appointment will be as per the norms of UGC/University/Government of Kerala. Application form and other details can be downloaded from the college website. Duly filled-in application form with all supporting documents and application fee of Rs. 2500/- should reach the Manager **within 30 days** from the date of this notification.

06.01.2025   Sd/-
Rajapuram   Manager

BASELIOS POULOSE II CATHOLICOSE COLLEGE, PIRAVOM

(Govt. Aided Minority Institution Affiliated to M.G. University, Kottayam)
Re-Accredited with 'A' Grade by NAAC
Mulakulam (N) P.O., Piravom, Ernakulam
Kerala-686 664.Ph- 0485 2243474
www.bpccollege.ac.in
principalbpccollege@gmail.com

NOTIFICATION

Applications are invited for filling up the following permanent Post.

Assistant Professor

Subject	No. of Posts	Category
Business Administration	1	Open Merit

Age, Pay and Qualifications: As per UGC, Kerala Govt. & M. G. University Rules.

Application form can be had from the College Office on payment of Rs. 3000/-. Apply **within one month** from the date of this notification. For more details, kindly contact the College office.

30.12.2024   MANAGER

WANTED

Application are invited from the eligible Candidates for the post of Assistant Professor full time in **Dr. Shivling Shivacharya Maharaj Pritishtan's College of Education, Ahmedpur** (Permanent Non- Granted). Application should reach the undersigned **within fifteen day** along with essential true copy of documents from the date of publication of this advertisement at the college address by Registered post only. Candidate from Reserved Category should send their application one copy to Assistant Registrar, Special Cell, Swami Ramanand Teerth Marathwada University, Nanded.

Sr. No.	Position	No of Post	Reservation
01	Prespectives In Education	01	SC -1, ST-1, VJA-01, OBC-01,SEBC-1, EWS-1
	Pedagogy Subject (Maths, Science) social Science, Language)	03	
	Health And Physical Education	01 Part Time	
	Performing Arts (Music/Dance/Theatre) Fine Arts	01 Part Time	

As per Govt. Decision Dt 25 Jan 2024 & 29 Jan 2024 Parallel Reservation or Horizontal Reservation.

Sr. No.	Parallel or Horizontal Reservation.	No of Post
1	Woman Candidates	02

Education Qualification:-

* **Prespectives in Education or Foundation Courses :-** Postgraduate degree in Social Sciences with minimum 55% mark; and M.Ed. degree form a recognized university with minimum 55% marks **OR** Postgraduate (MA) degree in Education with minimum 55% marks; and B.Ed./ B.El.Ed. degree with minimum 55% marks (**or** an equivalent grade in a point scale wherever grading system is followed); and SET / NET/ Ph.D. in Education/in related Subject.

* **Curriculum and Pedagogic Courses:-** Postgraduate degree in Sciences/Mathematics/Social Sciences/Languages with minimum 55% marks, and M.Ed. degree with minimum 55% marks (**or** an equivalent grade in a point scale wherever grading system is followed); and SET / NET/ Ph.D. in Education.

* **Physical Education:-** Master of Physical Education (M.P.Ed.) with minimum 55% marks and SET/ NET/ Ph.D. in related Subject.

* **Performing Arts :-** Post graduate degree in fine Arts (MFA) with minimum 55% marks and SET/NET/Ph.D. in related Subject.

* **Salary & Allowances:** Pay Scales as per UGC. State Govt. NCTE. & S.R.T.M. University Nanded's rules from time to time.

Note:-1) Prescribed application form is available on the University **website (www.srtmun.ac.in) 2)** No T.A./D.A. will be paid to attend the interview. **3)** There will be Relaxation of 5% Marks at P.G. Level for SC/ST candidates only. **4)** According to Govt. rules 30% and 3% posts will be reserved for women and differently abled presons respectively. 5) Eligible candidates who are already in service should submit their application though proper channel. **6)** All attested Xerox Copies of certificates and other relevant document should be attached to the application form.
Address for correspondence: The Principal, Dr. Shivling Shivacharya Maharaj Pritishtan's College Of Education, Ahmedpur. Shankar Nagar, Ambajogai Road, Ahmedpur, Tq. Ahmedpur, Dist. Latur Pin – 413515**.** Contact No. 9527876969

Act. President   **Principal**

Sai Seva Shikshan Prasarak Mandal Sanchalit, Shri. Pandit Baburao Chaughule College of Pharmacy, Bhiwandi

Rahnal, Anjurphata, Tal.-Bhiwandi, Dist. -Thane 421302

APPLICATIONS ARE INVITED FOR THE FOLLOWING POSTS FROM THE ACADEMIC YEAR 2024-25:

UN-AIDED

Sr. No	Cadre	Subject	Total no. of Posts	Category
1	**Principal**	--	01	1- OPEN
2	**Professor**	Pharmaceutics	01	1-OPEN
		Pharmaceutical Chemistry	01	1-OPEN
3	**Associate Professor**	Pharmaceutics	01	1-OPEN
		Pharmaceutical Chemistry	01	1-OPEN
		Pharmacology	01	1-OPEN
		Pharmacognosy	01	1-OPEN
		Pharmacy Practice	01	1-OPEN
4	**Assistant Professor**	Pharmaceutics	05	1-SC/ST,1-DT(A),1-OBC,1SEBC/EWS,1-OPEN
		Pharmaceutical Chemistry	04	1-SC/ST, 1-DT(A),1-OBC, 1-OPEN
		Pharmacology	03	1-SC/ST, 1-DT(A), 1-OPEN
		Pharmacognosy	02	1-SC/ST, 1-OPEN
5	**Librarian**	--	01	1-OPEN

For Assistant Professor (Horizontal Reservation)
Persons with Disability Total Post – 01 (A Group – B./LV. – 01 Post), Sportsmen – 01

The posts for the reserved category candidates will be filled in by the same category candidates (Domicile of states of Maharashtra) belonging to that particular category only. Reservation for women will be as per **University Circular No. BCC/16/74/1998 dated 10th March, 1998. 4% reservation shall be for the persons with disability as per University Circular No. Special Cell/ICC/2019- 20/05 dated 05th July, 2019.**Candidates having the knowledge of Marathi will be preferred. **The Educational Qualification, Experience & pay-scale for the posts of Principal, Professor, Associate Professor, Assistant Professor and Librarian are as prescribed by the University of Mumbai, AICTE from time to time. Please refer University Circular No. मशिमाक / विशिमाक / तंत्रशिक्षण / ११ / २०२०–२०२१ दिनांक ११ जानेवारी for qualification and Experience at the time of interview.** Applicants who are already employed must send their application through proper channel. Applicants are required to account for breaks, if any, in their academic career. Applications with full details should reach to the **PRESIDENT**, **Shri Pandit Baburao Chaughule College of Pharmacy, Bhiwandi, At Post - Rahnal, Anjurphata, Tal. -Bhiwandi, Dist. - Thane 421302**, **within 15 days** from the date of publication of this advertisement. **This is University approved advertisement.**

Sd/-
PRESIDENT

WANTED

Applications are invited from the Eligible candidates for the following posts in **Sambhajirao Kendre Mahavidyalaya Jalkot Tq.Jalkot Dist. Latur** (Granted) run by **Jijamata Bahu-Uddyashiya Shikshan Prasarak Mandal Patoda (Bk.)**. The applications duly completed should reach the following address within 15 days from the date of advertisement. The candidates of reserve category should submit one copy of their application to the Assistant Registrar, Special Cell, Swami Ramanand Teerth Marathwada University, Nanded.

Sr. No.	Subject	Name of Post (Designation)	No. Of Post	Reservation
01	Zoology	Asst. Professor	01	OBC – 01
02	Geology		01	SEBC – 01

Permission as per NOC No. :- 01) HTED-E-Com. No. 844580/2024-MHT (HE-5) Dt. – 07/10/2024
02) विशिससं/उशि/नांवि/2024-25/686192/2024 दि. 29/11/2024

As per Govt. decision Dt. 25 Jan, 2024 Parallel Reservation or Horizontal Reservation

Parallel or Horizontal Reservation Women Candidates	No. of Post 01

Educational Qualification : (A & B)

A   01. Minimum educational qualification for the Post of Assistant Professor will be as per Regulations of UGC (2018), G.R. of Govt. of Maharashtra Dt. 08 March 2019

02. A Master's degree with 55% marks (or an equivalent grade in a point-scale wherever the grading system is followed) in a concerned/relevant/allied subject from an Indian University, or an equivalent degree from an accredited foreign university.

03. Besides fulfilling the above qualifications, the candidate must have cleared the National Eligibility Test (NET) conducted by the UGC or the CSIR, or a similar test accredited by the UGC, like SET or who are or have been awarded a Ph. D. Degree in accordance with the University Grants Commission (Minimum Standards and Procedure for Award of M.Phil./Ph.D. Degree) Regulations, 2009 or 2016 and their amendments from time to time as the case may be exempted from NET/SET:

Provided the candidates registered for the Ph.D. programme prior to July 11, 2009, shall be governed by the provisions of the then existing Ordinances / Bye-laws/Regulations of the Institution awarding the degree and such Ph.D. candidates shall be exempted from the requirement of NET/ SET for recruitment and appointment of Assistant Professor or equivalent positions in Universities/Colleges/Institutions subject to the fulfillment of the following conditions:

a) The Ph.D. degree of the candidate has been awarded in regular mode only;

b) The Ph.D. thesis has been evaluated by at least two examiners;

c) An open Ph.D. viva voce of the candidate has been conducted;

d) The candidate has published two research papers from his/her Ph.D. work, out of which at least one is in a refereed journal; and

e) The candidate has presented at least two papers, based on his/her Ph.D. work in conferences/seminars, sponsored/ funded/supported by the UGC/ICSSR/CSIR or any similar agency.

Note :

1) The fulfillment of these conditions is to be certified by the Registrar or the Dean (Academic affairs) of the University concerned.)

2) NET/SET shall also not be required for such Masters Programmes in disciplines for which NET/SET is not conducted. However, Ph.D. degree shall remain the minimum eligibility for appointment of Assistant Professor in such disciplines.   **OR**

B.

The Ph.D. degree has been obtained from a foreign university/institution with a ranking among top 500 in the World University Ranking (at any time) by any one of the following:

(i)   Quacquarelli Symonds (QS);

(ii)   the Times Higher Education (THE) or

(iii)   the Academic Ranking of World Universities (ARWU) of the Shanghai

Note :   The Academic score as specified in Appendix II (Table 3A) for Universities, and Appendix II (Table 3B) for Colleges, shall be considered for short-listing of the candidates for interview only, and the selections shall be based only on the performance in the interview.

Salary & Allowances : Pay Scale as per UGC, State Govt. & S.R.T.M. University, Nanded rules form time to time.

Note :
01. Prescribed application form is available on the University website : www.srtmun.ac.in
02. No. T.A. / D.A. will be paid to attend the interview.
03. Eligible candidates those who are already in service should submit their applications through proper channel.
04. All attested Xerox copies of certificates & other relevant documents should be attached with the application form.
05. According to Govt. rules, 30% and 3% seats will be reserved for women and differently abled persons respectively.
06. Relaxation of 5% marks at P.G. level for SC/ST candidates only.
07. The vacancies of Assistant Professors will be filled subject to condition of the decision in writ petition No.12051/2015 pending in Hon'ble High Court of Judicature of Bombay, Bench at Aurangabad.

Note : To submit Application on the University website prescribed format only (www.srtmun.ac.in)

Address for Correspondence :

The Principal	**Dr. B. M. Kendre**	**Dr. B. T. Lahane**
Sambhajirao Kendre Mahavidyalaya Jalkot	**President**	**Principal**
Tq. Jalkot Dist. Latur – 413 532 (Maharashtra)	J.B.S.P.M. Patoda	S.K.M. Jalkot