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Report on the Three-Day Online Faculty Development Program (FDP) on "Latest Trends in Research"

Introduction: The three-day online Faculty Development Program (FDP) on "Latest Trends in Research" was held from **November 22 to 24, 2021**, hosted by **PragatiMahavidyalayaSawkheda, Sillod**, in collaboration with **SantDasganu Arts Commerce and Science College, Akolner, Ahmednagar**, and **New Bhagwandas Arts Commerce and Science College, Tanpurwadi.** The event aimed to enhance research skills among faculty members, focusing on the ethical, technological, and multidisciplinary aspects of modern research. The program was coordinated by Prof.Chandranayan K. Waghmare, with the guidance and support of Dr.Varsha S. Phalke, the principal of PragatiMahavidyalayaSawkheda.

Detailed Report on Day 1: November 22, 2021

Topic:*Ethical Writing*

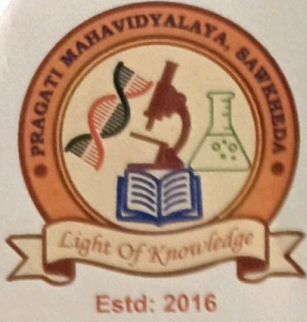**Speaker:**Prof.PallaviMohite (PragatiMahavidyalayaSawkheda)

The first day of the Faculty Development Program (FDP) on "Latest Trends in Research" commenced with an engaging and thought-provoking session on "Ethical Writing," presented by Prof.PallaviMohite from PragatiMahavidyalayaSawkheda. As the session began, participants were welcomed warmly, setting a collaborative tone for the discussions to follow.

Introduction to Ethical Writing: Prof.Mohite opened her lecture by addressing the critical importance of integrity and transparency in academic writing. She articulated that ethical writing is foundational to credible research and scholarly communication. By maintaining ethical standards, researchers uphold the quality of academic discourse and contribute positively to their respective fields.

Common Ethical Dilemmas: The speaker outlined several common ethical dilemmas that researchers frequently encounter:

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Affiliated to: S.N.D.T. Women's University, Mumbai

College Code: 442 Exam. Center Code: 291

Website: www.pragatisawkheda.co.in

Email: pragatiiqac2016@gmail.com, pragatimahavidyalaya442@gmail.com
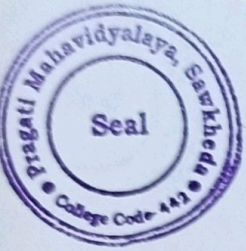
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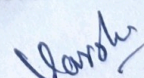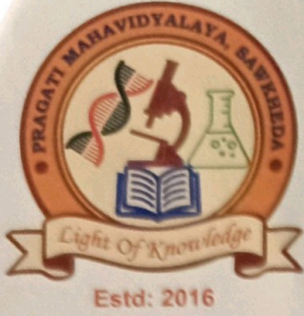Ref No.: PMS/2021 -2022/ ⸺   Date : 22 / 11 /2021

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1. **Plagiarism:** Prof.Mohite explained the various forms of plagiarism, emphasizing that it is not limited to verbatim copying of text. It also includes inadequate paraphrasing, improper citation, and presenting someone else's ideas as one's own. She stressed the need for originality and the ethical implications of failing to acknowledge others' contributions.

2. **Data Manipulation:** Another critical issue discussed was data manipulation, where researchers might intentionally alter data to achieve desired outcomes. Prof.Mohite underscored the importance of presenting data honestly and transparently, which is crucial for the credibility of research findings.

3. **Improper Citation Practices:** The speaker provided insights into the proper citation of sources, explaining the significance of giving credit to the original authors. She highlighted that accurate citations not only honor the work of others but also bolster the credibility of one's own research.

Guidelines for Ethical Writing: In her presentation, Prof.Mohite introduced participants to various guidelines for ethical writing, as outlined by reputable academic bodies and journals. She emphasized the following key principles:

- **Respect for Intellectual Property:** Researchers must respect the intellectual property rights of others and seek permission when necessary.

- **Honesty in Research:** Maintaining honesty in presenting research findings is paramount. Researchers should report their results transparently, regardless of whether the outcomes align with their hypotheses.

- **Fairness in Collaboration:** When collaborating with other researchers, it is vital to ensure fairness in authorship credit, acknowledging all contributors appropriately.

Practical Advice on Ethical Writing: Prof.Mohite provided practical advice on how to improve ethical writing practices:

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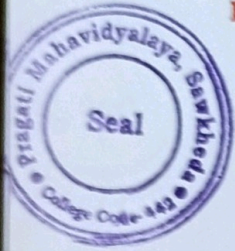**Contact:** 9822021784, 8888611717

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- **Paraphrasing Techniques:** She explained effective strategies for paraphrasing, encouraging participants to express ideas in their own words while still giving credit to the original authors. This practice can help avoid plagiarism while demonstrating a deep understanding of the source material.

- **Use of Citation Tools:** The speaker introduced various citation management tools, such as Zotero and Mendeley, which help researchers organize references and format citations correctly. She demonstrated how these tools can streamline the writing process, making it easier to adhere to ethical standards.

- **Avoiding Self-Plagiarism:** Prof.Mohite warned against self-plagiarism, advising researchers to seek permission or rework previously published content significantly if they wish to incorporate it into new research.
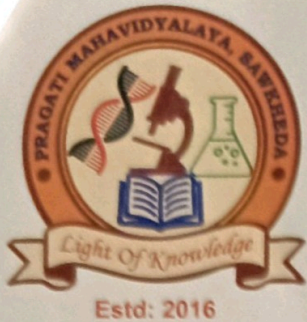
Interactive Q&A Session: The session concluded with an interactive Q&A segment, where participants were encouraged to share their experiences and challenges in maintaining ethical writing standards. Faculty members actively engaged with Prof.Mohite, raising questions about specific ethical dilemmas they had encountered in their research practices.

Discussions highlighted the varying degrees of understanding and adherence to ethical writing among faculty, with many expressing gratitude for the practical insights shared during the session. Prof.Mohite offered further clarification on complex issues, reinforcing the importance of ethical responsibility in academic writing.

Summary: Overall, the first day of the FDP was highly impactful, equipping participants with essential knowledge about ethical writing. Prof.PallaviMohite's engaging presentation not only illuminated the challenges of maintaining ethical integrity in research but also provided practical tools to navigate these issues effectively. The session served as a vital reminder of the responsibilities researchers hold in upholding academic standards, ensuring that their contributions to knowledge are both credible and ethical.

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Detailed Report on Day 2: November 23, 2021

Topic: *Role of Computers in Research*

Speaker: Prof.PranaliSonawane (SantDasganu Arts Commerce and Science College, Akolner)

The second day of the Faculty Development Program (FDP) on "Latest Trends in Research" featured an enlightening lecture by Prof.PranaliSonawane, who addressed the "Role of Computers in Research." Her presentation emphasized how advancements in technology, particularly in computing, have transformed research methodologies across various disciplines. This session aimed to equip faculty members with the knowledge and tools necessary to leverage computing technology in their research efforts.
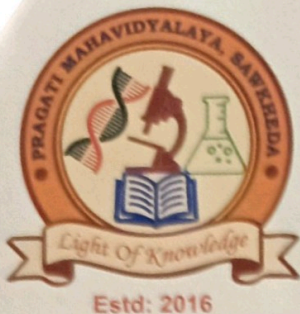
Introduction to Computing in Research: Prof.Sonawane began her lecture by tracing the historical evolution of computing in research. She noted that the integration of computers into academic research has evolved from simple data entry tasks to sophisticated analytical processes. In the past, researchers relied on manual calculations and basic statistical tools, but the advent of computers has drastically streamlined these tasks, allowing for more complex analyses and interpretations.

Evolution of Research Tools: The speaker highlighted several key milestones in the development of research tools:

1. **Statistical Software:** Prof.Sonawane introduced various statistical software applications that have become fundamental to research, such as SPSS, R, and MATLAB. She discussed their functionalities, demonstrating how these tools facilitate data analysis, from basic descriptive statistics to advanced inferential techniques.

2. **Reference Management Software:** Prof.Sonawane underscored the importance of properly managing citations and references in research writing. She provided an overview of popular reference management tools, including Mendeley and Zotero,

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explaining how these platforms help researchers organize their references, collaborate with peers, and format citations in various styles efficiently.

3. **Collaboration Platforms:** The importance of collaboration in research was a significant focus of Prof.Sonawane's lecture. She discussed platforms like Google Scholar and ResearchGate, which enable researchers to connect, share their findings, and access a wealth of scholarly resources. These platforms facilitate networking and collaborative opportunities, enhancing the research community.

The Role of AI and Automation: A significant portion of the lecture was dedicated to exploring the role of artificial intelligence (AI) and automation in research. Prof.Sonawane elaborated on how AI technologies have enhanced data mining, analysis, and pattern recognition within large datasets. Key points included:

- **Data Mining:** AI algorithms can analyze vast amounts of data, identifying trends and patterns that might be missed by traditional analytical methods. This capability is especially valuable in fields like social sciences and healthcare, where large datasets are common.

- **Predictive Analytics:**Prof.Sonawane discussed how predictive analytics, powered by machine learning algorithms, can forecast trends based on historical data. This approach allows researchers to make informed decisions and predictions in various domains.

- **Natural Language Processing (NLP):** The speaker explained how NLP applications can assist in analyzing textual data, enabling researchers to extract meaningful insights from qualitative data sources such as interviews, open-ended survey responses, and academic literature.

Live Demonstration of Research Tools: To enhance the participants' learning experience, Prof.Sonawane conducted a live demonstration of several research tools. She showcased how to perform basic statistical analysis using SPSS, providing step-by-step

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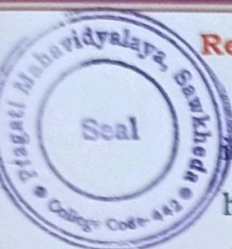Website: www.pragatisawkheda.co.in
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instructions on data entry, analysis, and interpretation of results. Participants observed how user-friendly interfaces could simplify complex tasks.

Additionally, she demonstrated how to use Mendeley for reference management, showing attendees how to import references, organize their library, and create bibliographies effortlessly. This practical demonstration provided attendees with tangible skills they could immediately apply to their research projects.

Interactive Q&A Session: The session concluded with an interactive Q&A segment, where participants engaged with Prof.Sonawane, seeking clarification on the tools discussed and sharing their own experiences with technology in research. Faculty members expressed interest in learning more about specific software and requested recommendations for their research needs. Prof.Sonawane provided tailored advice, encouraging participants to explore additional resources and online tutorials to further their proficiency with the tools presented.

Summary: The second day of the FDP was a resounding success, with Prof.PranaliSonawane delivering a comprehensive overview of the role of computers in research. Her insights into the evolution of research tools and the impact of AI and automation resonated with participants, many of whom expressed eagerness to integrate these technologies into their own research practices. The live demonstration provided practical knowledge, ensuring that faculty members left the session equipped with essential skills to enhance their research methodologies through technology.
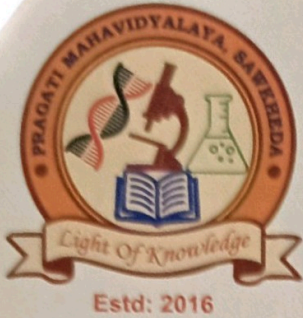
Day 3: November 24, 2021

Topic:*What is Multidisciplinary Research?*

Speaker: Prof.GarjeBablu (New Bhagwandas Arts Commerce and Science College, Tanpurwadi)

The final day of the Faculty Development Program (FDP) on "Latest Trends in Research" was marked by an insightful presentation by Prof.GarjeBablu, who explored the concept

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Email: pragatiiqac2016@gmail.com, pragatimahavidyalaya442@gmail.com
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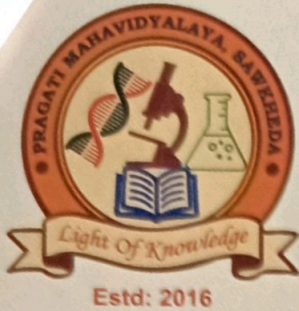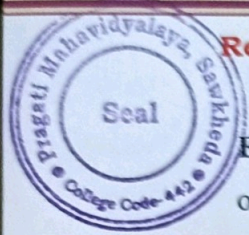Ref No.: PMS/20 24 -20 22 /—   Date : 22/ 11 /2024

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of "Multidisciplinary Research." His session underscored the increasing significance of interdisciplinary collaboration in addressing complex issues that single-discipline approaches often fail to resolve.

Understanding Multidisciplinary Research: Prof.Bablu commenced his presentation by defining multidisciplinary research. He explained that it involves the integration of concepts, theories, and methodologies from various disciplines to tackle complex problems, thus enabling researchers to harness a wider array of knowledge and expertise. This collaborative approach is essential in an era where many of the world's challenges— such as climate change, healthcare crises, and technological advancements—require comprehensive solutions that draw on multiple fields of study.

Importance of Interdisciplinary Collaboration: The speaker emphasized the importance of interdisciplinary collaboration, illustrating how it fosters innovation and creativity. He highlighted several key reasons why multidisciplinary research is becoming increasingly vital:

1. **Complex Problem-Solving:** Many modern challenges are multifaceted and cannot be adequately addressed from a single disciplinary perspective. By bringing together experts from different fields, researchers can develop more holistic and effective solutions.

2. **Innovation through Diversity:**Prof.Bablu explained that collaboration among diverse disciplines can lead to innovative ideas and methodologies. The interplay of different perspectives often sparks creative solutions that would not emerge in isolation.

3. **Resource Sharing:** Collaborating across disciplines allows researchers to share resources, expertise, and knowledge, enhancing the quality and scope of research projects.

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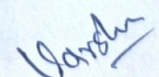Ref No.: PMS/20 24 -20 22/   Date : 22/ 11 /2024

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Examples of Successful Multidisciplinary Research Projects: To illustrate the impact of multidisciplinary research, Prof.Bablu provided examples from various fields:

- **Climate Change:** He highlighted projects where scientists, social scientists, and policy experts collaborated to create strategies for mitigating climate change effects. This integrated approach has led to more effective policies and sustainable practices.

- **Healthcare:** In the medical field, collaborations between biologists, engineers, and data scientists have advanced healthcare solutions, such as the development of wearable health monitoring devices and predictive analytics for patient outcomes.

- **Artificial Intelligence:** The intersection of computer science, ethics, and social sciences has been crucial in addressing the ethical implications of AI technologies. This collaboration ensures that AI developments are socially responsible and align with public interests.

Challenges and Benefits of Multidisciplinary Research: Prof.Bablu did not shy away from discussing the challenges associated with multidisciplinary research. He noted that while such collaborations can lead to ground breaking discoveries, they often require overcoming several barriers:

1. **Differences in Research Language:** Researchers from different disciplines may use varied terminologies and frameworks, which can lead to misunderstandings. Effective communication is vital for successful collaboration.

2. **Methodological Variations:** Each discipline has its own research methodologies, and harmonizing these can be complex. Prof.Bablu encouraged participants to be open-minded and adaptable in their approaches.

3. **Professional Culture Differences:** Researchers often have distinct professional cultures, and navigating these differences is essential for fostering a collaborative environment.

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Despite these challenges, Prof.Bablu stressed the numerous benefits of multidisciplinary research, including enhanced creativity, improved problem-solving capabilities, and the potential for significant advancements in knowledge and technology.

Encouragement for Exploration: In his concluding remarks, Prof.Bablu encouraged participants to actively seek out multidisciplinary projects and collaborations beyond their traditional fields of study. He emphasized that engaging with colleagues from different disciplines can lead to richer research experiences and innovative outcomes.

Interactive Q&A Session: The session concluded with an interactive Q&A segment, allowing participants to delve deeper into the topic. Attendees raised questions about their own experiences with multidisciplinary projects, seeking advice on how to initiate collaborations and overcome potential challenges. Prof.Bablu provided valuable insights, reinforcing the importance of proactive communication and networking within academic and research communities.

Summary: Day three of the FDP was a fitting conclusion to the program, with Prof.GarjeBablu offering a compelling exploration of multidisciplinary research. His insights into the importance of interdisciplinary collaboration and the challenges and benefits associated with it resonated deeply with participants. The session equipped faculty members with a greater understanding of how to leverage multidisciplinary approaches in their research endeavors, inspiring them to pursue innovative collaborations that transcend traditional academic boundaries. Overall, the FDP successfully fostered a spirit of inquiry and collaboration, empowering participants to embrace the latest trends in research.

Overall FDP Summary: The FDP on "Latest Trends in Research" was highly successful in addressing critical aspects of research, including ethical writing, the integration of technology, and the value of multidisciplinary approaches. The speakers offered a mix of theoretical insights and practical tools that participants could immediately apply to their

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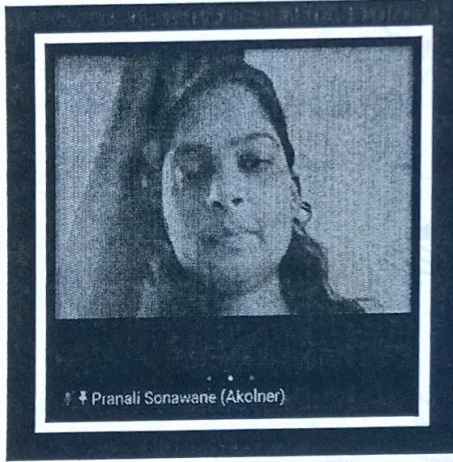| Mrs. Kaveri Palkar	Mrs. Archana Mukhekar	Dr. Varsha Phalke
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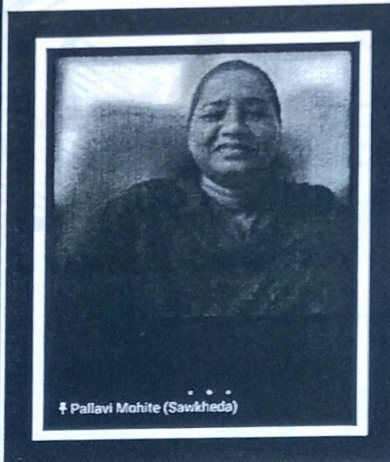Ref No.: PMS/2021 -2022/____   Date : 22 / 11 /2021

research endeavors. Prof.Chandranayan K. Waghmare's excellent coordination and Dr.Varsha S. Phalke's support ensured the smooth execution of the program, which was attended by faculty members from various institutions.
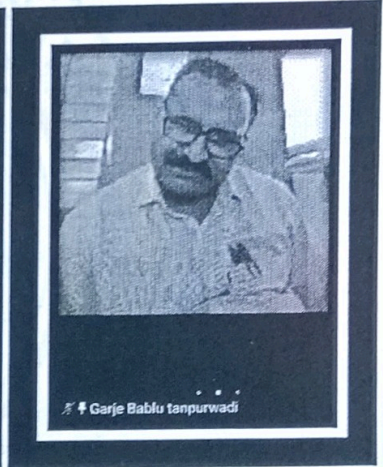
This FDP not only enriched the knowledge of the participants but also equipped them with the necessary skills to pursue research that is ethical, technologically advanced, and collaborative across disciplines.

Pranali Sonawane (Akolner)   Pallavi Mohite (Sawkheda)   Garje Bablu tanpurwadi

Coordinator

Principal   PRINCIPAL
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