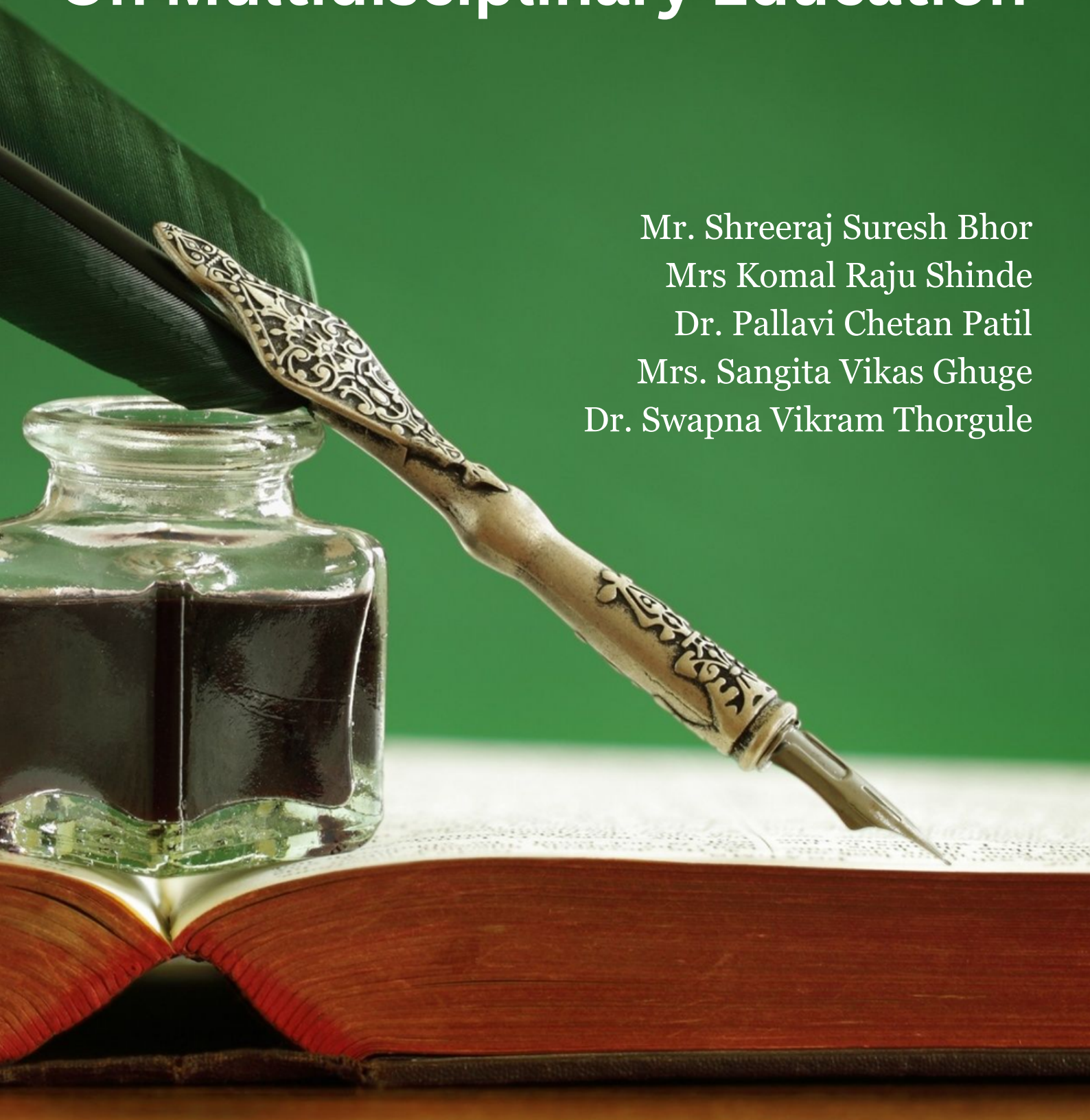
Implementation of National Educational Policy 2020

On Multidisciplinary Education



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Implementation of National Educational Policy 2020 on Multidisciplinary Education

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Implementation of National Educational Policy 2020 on Multidisciplinary Education

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First Impression: March 2023

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ISBN : 978-93-93810-35-9

Rs. 650/- ($18)

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Published by:
Empyreal Publishing House

PREFACE

It is a matter of great pleasure for us to present this book to our esteemed readers. This book has been designed as standard research on the implementation of the National Education Policy 2020 on multidisciplinary education.

The progressive and futuristic National Education Policy 2020 seeks to change higher education by giving it a more inclusive, all-encompassing, and multidisciplinary focus. An innovative educational strategy called holistic and Multidisciplinary learning enables students to learn about and experiment with various courses or curricula from many fields of study.

Research is defined as "creative and methodical activity done to improve the body of knowledge." It entails gathering, organising, and analysing data in order to understand a subject in a better way and is distinguished by a focus on minimizing bias and error have these causes. These tasks are distinguished by taking biases into account and adjusting for them.

This book comprehensively covers the topics related to the National Educational Policy 2020, like a multidisciplinary approach to revolutionising teaching and learning, a study of future learning, challenges, and opportunities, with a roll call and opinion on multidisciplinary education, and the role of artificial intelligence in national education policy 2020, digital education, education in chemistry, improving quality through multidisciplinary education, etc. It has been written to meet the requirements of students, research scholars and even teachers.

Here are some of the book's unique qualities:

1. The issues of the National Education Policy are covered as thoroughly as possible.
2. There is an outline at the beginning of every paper to provide a bird's-eye view of the topics covered.
3. A detailed description of each paper topic Topics are logically arranged in numerical paragraphs exactly according to the paper’s subjects.
4. To provide a visual view of key concepts and techniques, extensive diagrams, tables, and various forms are used.
5. Language that is clear and easy to understand.

The most current and reliable information on the topic has been made every attempt to deliver to the readers. While best efforts have been put towards the writing of this book. Suggestions and feedback from readers are welcome and will be acknowledged with gratitude.

ACKNOWLEDGEMENT

We are grateful for the chance to publish this edited collection, "Implementation of "National Education Policy 2020." We are unable to recognise each one of them separately. We would like to express our special thanks to them at this time.

We would like to express our deep sense of gratitude and indebtedness to the president of Sarhad Mr. Sanjay Nahar, Mrs. Sushma Nahar, Secretary of Sarhad, Mr. Shailesh Wadekar, Trustee of Sarhad, Mr. Anuj Nahar Trustee of Sarhad and Principal Dr. Hanumant R. Jadhawar and Vice Principal Dr. Sangeeta Shinde for their priceless and meticulous supervision at each and every phase of work inspired us in innumerable ways. Distinctive thanks to Dr. Vandana Chavan, Dr. Anupama Watkar, Dr. Sunil Ukale, Asst. Prof. Komal More, and all the teaching and non-teaching staff of Sarhad College of Arts, Commerce, and Science for their unwavering support.

The publication of this book is gratefully acknowledged by Mr. Arvind Kumar of Empyreal Publication House. We take great pride in stating that we had the chance to work with someone of his calibre.

We want to express our appreciation to all the contributors whose papers were included in this collection. Their commitment, dedication, and hard work served the book's objective of publication and gave it knowledge.
This volume would not have been possible without the enthusiastic participation of and assistance of everyone listed above.

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LEADERSHIP SKILLS AND TECHNIQUES REQUIRED TO IMPLEMENT MULTIDISCIPLINARY APPROACH IN NEP2020

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ABSTRACT

The National Education Policy 2020 (NEP 2020) is primarily concerned with Multidisciplinary education and skill development. People acquire knowledge, skills, habits, values, and attitudes through education. A superior liberal skills education, an ideal learning environment, and student mobility will replace the current system.

The implementation of NEP 2020 is crucial and need a proper plan of action. The leaders of the institutions have to expand their leadership with additional skills and strategic planning. The paper primarily focuses on the leadership skills and techniques are required to implement Multidisciplinary approach in NEP 2020. The study focuses on the leadership skills required for Higher Education Institutes (HEIs).

Keywords: NEP 2020, Higher Education Institutes (HEIs), Leadership, Leadership skills, Multidisciplinary education

INTRODUCTION

The progressive and forward-looking National Education Policy 2020 seeks to transform higher education by giving it a more inclusive, holistic, and multidisciplinary orientation. Holistic and multidisciplinary learning is an innovative educational approach that enables students to explore and experiment with numerous courses or curricula from many areas of study. The policy offers information on basic education through higher education as well as a comprehensive framework for vocational education in both rural and urban India. This strategy calls for the replacement of the existing 10+2 school structure with a new 5+3+3+4 system that focuses on the first five years of early childhood care and education, starting at age three. The policy's major goal is to give each and every aspirant access to a multidisciplinary education.

Numerous academics have written articles and papers analyzing the NEP 2020. However, the skill set needed for NEP 2020 implementation is crucial. Leadership skills and techniques, in context with NEP 2020 are discussed in this paper.

1. INITIATIVES TAKEN TO IMPLEMENT NEP 2020 IN HIGHER EDUCATION

The Central and State Governments and Their Autonomous Agencies Released the New National Education Policy (NEP) 2020 on July 29, 2020. To explore various NEP 2020 suggestions and implementation techniques, the Department of School Education and Literacy (DoSE&L) of the Education Ministry hosted the "Shikshak Parv" festival for teachers from September 8–25, 2020. The result was the announcement on 8 April 2021 of the complete implementation plan SARTHAQ (Students' and Teachers' Holistic Advancement through Quality Education). SARTHAQ outlines the tasks connected to each NEP 2020 guideline. It defines 297 tasks, names the organisations in charge of carrying out each one, and details the due dates and goals for each work.

The University Grants Commission (UGC) announced several projects, including guidelines for Multiple Entry and Exit in Academic Programs of Higher Education Institutions, Guidelines for Apprenticeship/Internship Embedded Degree Program as Part of the Curriculum of General Degree Program, Amendment of Institutions Deemed to be University Regulations to Facilitate Vocational Education to Enhance Employability, Regulations on ODL and Online, and Regulations on ODL and Online, guidelines for Internationalization of Higher Education,

Establishment of Office for International Affairs - a one-stop shop for international students , Alumni Connect at University Level to Engage with Alumni, Regulations on Credit Framework for Online Courses through SWAYAM, 2021 for Recognition and Integration of Credits, Regulations on Credit Framework for Online Courses (of foreign origins and Indians living abroad)

The National Institute Ranking Framework (NIRF) and NAAC are two organisations that assess the quality of higher education (National Assessment and Accreditation Council). The National Institute Ranking Framework (NIRF) outlines a framework for categorising institutions all across the country. The NIRF's criteria involve teaching, learning, and resources as well as research, professional practices, graduation outcomes, outreach, inclusion, and perception.

The mission of NAAC, as expressed in its vision statement, is to ensure that higher education institutions operate in accordance with the highest standards possible (HEIs). Through NIRF and NAAC, multidisciplinary education is encouraged and high-quality research is promoted.

Despite all of the steps the government has done, HEI leaders still need to put in more effort and advance their professional development in order to implement NEP 2020 in their organizations.

In the below section, the leadership skills and techniques required to implement the multidisciplinary approach in NEP 2020 are discussed.

2. LEADERSHIP SKILLS AND TECHNIQUES

The leaders of higher education institutes have to expand their skill set and strategies to implement all features of NEP 2020 in their institutes. Basically, NEP 2020 is based on skill enhancement and multidisciplinary education. To implement the features of NEP 2020, leaders have to take extra efforts and train their faculty accordingly. For this, leaders must all leadership skills which are explained in below section.

The leaders of HEIs should have strong social commitment, believe in his/her team, the capability to work with various people and have a positive attitude.

The leaders have to develop various skills such as, critical and creative thinking, decision making and problem-solving power, strong interpersonal relationship, excellent communication and skills to resolve conflict issue.

Leaders must have self-confidence and motivation. He or she needs to be a good listener and build relationships with people from industry and academics. Leaders must assess their own qualities as well as those of their team members. They should continue to concentrate on strengthening their deficiencies. The main thing is to maintain team unity while working toward an institute's mission and vision. Teamwork will only develop and members of the team will cooperate when everyone knows their responsibilities and what they should be doing. An individual working alone will never produce as much as a team working together. In order to create a culture that inspires the students and faculty members to do the same in the institute, leaders must be creative and innovative in their everyday job. To have an impact on the members of their team in a positive way, leaders must set a good example.

The faculty members always talk to their leader about their issues. Leaders should have a solution-oriented approach in order to address these issues. He or she should be able to listen well and provide appropriate advice and suggestions.

Transparency in teamwork is very important. Transparent communication facilitates speedy problem resolution. Issues are openly discussed when they are transparently highlighted. Trust is very important in any organization. Building trust requires honest communication. Leaders can use a number of strategies to get everyone in your team communicating with one another in an open, genuine manner. Initially giving team members limited projects or tasks, leaders might

later grow the team and the project's scope. A leader must be aware of the team members' abilities when allocating the task. If a person is given a work that is outside the scope of his or her ability, the entire task may fail, which could have an effect on the institute's overall environment.

Leaders should have good communication skills. A leader should be able to explain the objectives of any task clearly to their team members. Leaders have to take extra efforts to improve communication skills. Leaders have to empower the team members with various skills. Leader has to encourage and guide their team members and give them the confidence that they can do the task within stipulated time. Once the team members can trust their leader and their colleagues, the given task can be completed within time and with good results.

Leaders need to inspire their team and point them in the right direction. Leaders should always be aware that things may not work out as to plan. Therefore, they should be adaptable and flexible enough to handle any kind of task.

Leaders must be able to make the right decisions in the allotted time. The decisions may be right or wrong, but leaders must always improve their ability to make decisions and should take lessons from every situation. Powerful decision-making is highly correlated with effective listening. Before making any decisions, leaders are able to listen to others. All the participants in the meeting should be given the chance to voice their opinions, discuss the issues, and then make decisions. It will help to improve decision-making ability.

The ability to distribute work among team members is a skill that leaders must adapt. Team members need to be inspired to concentrate on finishing their task on time by leaders who must communicate the priorities of the work to the team. In order to properly delegate their task, leaders must strive to develop new leaders within their institute. Managing all of the Institute's tasks can be virtually hard for any leader. Making efficient and capable team members responsible for the team will enable them to finish the assignment to the best of their abilities.

Delegating tasks to team members is a talent that leaders must learn to use. Team members need to be inspired to concentrate on finishing their task on time by leaders who must communicate the priorities of the work to the team. In order to properly delegate their task, leaders must strive to develop new leaders within their institute.

While a team should not be micromanaged, leaders can keep an eye on development. The effective and superior team leads can be given the necessary resources and independence by the leaders. The leader must give the assignment to their team and define their roles. Team members should also be made responsible for their job. To ensure that every team member is committed to their work, a standard of performance must be established.

It's crucial to do a timely review of any work. Leaders must have regular review sessions and take into account the suggestions and opinions of all members. A good leader can make judgements while taking their team members' recommendations into account. The best way for identifying strengths and weaknesses is self-evaluation. Create a questionnaire, have all team members complete it, analyses the results, and then take action to strengthen any areas that need improvement.

The Institute's leader must create a positive working environment. A strong team can only be formed when all members cooperate. Determine each team member's strengths, support and empower them, and create a sense of unity among them all in order to form a successful team. Through a feedback system, the leader must take into account the suggestions made by the team members and, if considered suitable and worthwhile, should put them into action.

3. ROLE OF LEADERS IN RESEARCH AND INNOVATION CENTER

The visibility of a leader's support is crucial to the innovation and research process because it encourages people to contribute to and participate in the programme. Research and innovation

are the important pillars of any HEI. It is the responsibility of leaders to encourage research in their organizations. Leaders can inspire and encourage teachers and students to participate in research projects. Leaders must also concentrate on doing joint research with businesses, academic institutions, and government agencies. It is necessary to organize a variety of research-related sessions and seminars to help faculty members and students.

Leaders must be effective mentors. Leaders may develop teachers and students and inspire them to pursue research by providing mentorship.

4. PLAN FOR FACULTY DEVELOPMENT IN LEADERSHIP AT HEI

The leaders of HEIs must be properly trained in order for them to implement features of NEP 2020 into their curricula. By participating in leadership development programmes, leaders must update their skill sets. HEI must concentrate on developing its senior professors, current leaders, and future leaders. Through various training programmes carried out in partnership with various training Institutes, the leaders will inspire their faculty members to implement the policy aspects of NEP 2020 in the Institute.

In order to explain the training programmes to be given for their faculty members, HEIs can organize orientation sessions. They are further inspired to participate in these trainings. In addition to working with HEIs, the institute will provide training programmes, assess the results, and monitor its implementation. It is possible to construct and develop an online platform on which HEI leaders and faculty members can access online leadership programmes and courses.

The online platform might resemble other online platforms like Coursera, Udemy, Swayam/NPTEL, etc.

Leaders, teachers, and everyone involved in higher education must collaborate to implement the NEP 2020. The leadership of HEIs plays a crucial and essential part in implementing the NEP. Before beginning to apply NEP 2020 in their institutions, leaders should

first understand its features. Therefore, increased leadership and training to enhance skill sets are crucial to the overall process of implementing NEP 2020.

REMARKS AND CONCLUSIONS

In April 2021, the Central Ministry of Education published the "SARTHAQ" NEP 2020 Implementation Plan for schooling. The government has undertaken a number of steps to put all of NEP 2020's characteristics into practice. Although there has been no official release of an implementation plan for higher education, many Universities have started work on them on their own.

The NEP 2020 features, improved teacher/student skill sets, teacher training programmes, high-end research, increased vocational training/credit courses, online platforms for students, inclusion of skill/vocational courses, etc., may be addressed in the NEP implementation plan that HEI leaders prepare for their institutions.

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IMPROVING QUALITY THROUGH MULTIDISCIPLINARY EDUCATION

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ABSTRACT

As of today, the Indian Education system is not good enough to produce great minds. The education system in India is only enough to produce clerks and other mere position workers. The New Education Policy (2020) is the new start for the education system everybody has been asking for years together to have a fresh approach towards studying and new ways to approach studying. This paper discusses the need for New Education Policy (2020) as it will lay the future to a new world in the area of education.

NEP is one of the best resolutions in the education world as it will change the mentality of the future generation relating to their skills and their thinking ways. NEP will be the best option for future students as NEP does not focus only on theory knowledge but on practical ways to imply the knowledge the students are inheriting while studying.

Keywords: New Education Policy, Multidisciplinary Education

INTRODUCTION

Multidisciplinary Education is where students can choose what they want from the entire curriculum and will not have to limit themselves to only study what is given to them. Multidisciplinary or Inter-disciplinary will remove all the barriers that the students face during their course time. It is the need of the hour as going about the traditional ways is not going to prove helpful for any boy; the students or the teachers. Multidisciplinary will bring about the change and the freshness everybody lacks nowadays.

If we go back to the ancient ways of teaching, it is the best example of multidisciplinary as the gurus never focused on one particular stream. They taught their students as per their interests and capacity. It is only the way forward in the teaching world as nowadays you cannot bind the children and make them do what we want them to do.

Multidisciplinary will give students a fair picture of what they like and it return it will help the students to understand their likings and desires. They will not have to stick just to one stream but go about their way of finding and discovering new things and having more opportunity in the near future.

The National Education Policy proposes the higher education to be in the following manner: -

It proposes a 4-year multi-disciplinary bachelor's degree in an undergraduate program with multiple exit options. These will include professional and vocational areas and will be implemented as follows:

1. A certificate after completing 1 year of study

2. A diploma after completing 2 years of study

3. A Bachelor's degree after completion of a 3-year program

4. 4-year multidisciplinary Bachelor's degree

"The National Education Policy -2020 urges to all the higher education institutions of the country to introduce multidisciplinary approaches in their arena."

"For instance, students will get certification after the completion of one year, advanced diploma after second year, Bachelors' degree will be given after the successful completion of 3 years & a degree indicating research intelligence by the end of 4th year will be offered to students."

REVIEW OF LITERATURE

1. **Rakesh Pathak (2021) National Education Policy 2020: Can it improve Faculty Motivation and Academic Outcomes in India?**

This paper reviews the motivation of the faculty about the new education policy 2020 and the results it provided. The results were not positive as the paper suggests that it will take more time from the faculty side and the student side to adjust to this new way of learning.

2. **Dr. Kishore Roy (2022) Multidisciplinary Approach in Teacher Education Programme: A Study.**

This paper describes how a teacher must be ready for all possible outcomes and ways to teach. It also shows the combination the multidisciplinary education is bringing in the teaching curriculum and what the teachers should to be prepared for this.

3. **Alok Kumar (2021): New Education Policy (2020): A roadmap for India 2.0.**

This paper highlights the new education policy of 2020 and the vision it provides to change the education way of India and to make it a 2.0 version.

RESEARCH METHODOLOGY

The study is based on secondary data. A survey of literature by eminent research scholars is done to get deep insights about the subject matter. Several published reports were also studied and websites were browsed during the study.

OBJECTIVES OF THE STUDY

1. To study what the New Education Policy (2020) has brought changes in the education policy.
2. To study why this policy is needed in the education system.

HYPOTHESIS

The New Education Policy is a much-needed change in our education system which will give great results and improve the quality of education in India. The NEP (2020) is going to lead students to decide their futures beforehand by exploring and trying out new subjects and ways to educate themselves.

ADVANTAGES OF MULTIDISCIPLINARY EDUCATION

1. Privilege to Choose:

As of now the students do not have the opportunity to choose their own subjects as per their own likings but with multidisciplinary education they will get the chance to choose their own subjects without having boundaries of stream. This will indeed help them in getting to know their likings and expertise also.

Choosing their own subjects at their own given pace and time will give them the confidence and mindset that they are choosing their own paths and future and are not doing what is being forced on them. Choosing your own way in education will in return give them the confidence about making their life decisions in the future which will make them more confident and strong headed beings.

2. Reach Within to Discover Passion:

With different subjects from different streams the students will be able to discover their passion and understand what they truly like and if the students are clueless they can still change if they do not feel comfortable in the current subject that they have elected. Due to multidisciplinary many students will be able to discover their inner passion of becoming what they want as they will not be bound to one road ahead.

The desire to do something out of the box is disappearing from the students as they are so in knee deep with studies that doing something out of the box is tiring for them. This leads to them doing the same mundane work again and again and not experiencing anything new. NEP is giving them a chance to think and do things out of the ordinary and reach deep within themselves and do things and work out of box.

3. Pragmatism & Flexibility:

Multidisciplinary education allows students to have a new approach to solving problems and a new outlook for finding solutions. It helps them to decide what subjects they want to choose and with this power they get to know the possible outcomes of that choice. It enables them to carve their own path by utilizing their mind-power and not walk on paths pre-decided by the educational system.

NEP provides the flexibility for students to change their subjects if they are not comfortable with it or do not find it interesting or want to learn something else. It allows the students to make changes in their syllabus which in return will give them that assurance that they need not stick with the subjects they do not understand or do not like. Learning with complete freedom is what NEP will provide students with.

4. Learn more, at Once:

With multidisciplinary students have to take few subjects for electives and the same time they can choose their own subjects which interests them. A student from the Commerce field can choose to take Corporate Accounting and Biology at the same time. This will enable a student to choose and understand what they truly like and will gain and learn more knowledge ant one time.

With NEP a student will not have to worry about learning new things, as it will be available for it in the same place and will not have to search it at different institutions. Today a student goes on to study and learn different things at one time but at a heavy price, this will not be the case as they will not have to spend anything extra and learn everything in the same institute.

5. Strong Membership

In today's time a student who has freshly graduated from a college degree does not always have a clear idea of what he/she wants to do which is completely okay but strong mentorship from the professors in this condition can help the student to understand what difficulties he/she is facing and can solve them.

With membership students will receive proper help that they need and desire in such conditions which they have no clue as to what to do next.

6. Critical Thinking & Problem-Solving Skills

Today's world does not work on the theoretical knowledge provided by our courses. Real world works on problem solving skills and practical knowledge. A student cannot depend just on theoretical knowledge or just practical knowledge; he/she requires a combination of both.

For a student who is studying banking they have to have the knowledge about the banking policies as well as how and where they are used. Getting knowledge with both perspectives in mind the student starts to think differently and draws out different ways to understand a particular concept which in return helps them to think out of the box and apply new logics.

7. Diversify Interests and opportunities

Students need not go down the same path as their chosen qualification field. As there are many opportunities nowadays which the students like to explore. If this desire of exploration is given chance in their learning days the students will be more ready to take challenges head on without being scared and will get an idea as to what is waiting for them outside their life of universities

and can be more free, wild and bold about their choices. With this sky is the limit for students as to the choices they can take for themselves.

CONCLUSION

The New Education Policy is going to be a great change for everyone and is going to take India's education to new heights. As due to this policy the students who want to study abroad will have a similar pattern of studies that they already have. Changing the way of education is also going to bring about changes in the ways a student will perceive their studies henceforth. The students will not feel burdened to study.

The perspective towards studying will change as they will not have to take any subjects they do not like and will be happy as they will be receiving all round knowledge. This will create more interest in the minds of the students and will in return give better results to the respective institutions.

With the entry of NEP (2020) the children will get more hyped about their education in general as they would like to explore the world of study and in return to this new found interest more researchers will come into existence as students will have more questions and the willingness and the power to search answers for these questions. Giving rise to the real curious nature of children which has been kept unexplored due to the study pattern will change and true personalities of children will come to light.

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ROLE AND OPINION OF STUDENTS ON MULTIDISCIPLINARY EDUCATION

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ABSTRACT

On today's day, we are looking for an innovative educational solution to groom our upcoming generations, their knowledge, and their skills. As an important part of this set of education policies, the government has an idea of emerging a new process in ideation, planning, and implementation n of Multidisciplinary policies for students as they aim to develop student's knowledge, meaning learning, skills, and abilities which is essential for a more complete picture of the problems. In this analysis, we got to know that most of the students are aware of and personally showed interest in NEP, which means (5+3+3+4) format, they are ready to opt for the new changes and reforms in the coming time in education. There are clear on their ideas and are focused.

About their education and career, most of them felt and have a great opinion on Multidisciplinary Education according to time and requirements and also have to bring changes in the education industry and conduct lectures.

Keywords: Multidisciplinary Education, NEP, Holistic, Role of students, Educational Reforms.

INTRODUCTION

Disciplinary knowledge was mainly based on 19th and 20th-century university methods. Now in this 21st Century current Generation is very essential to make use of the advantages and to understand the Multidisciplinary education and its advantages of it to give back solutions to the problems of society. The perceptive on multidisciplinary is related to the modernization approach of learning for alternate market conditions and transferrable job skills.

The government took initiative to give a helping hand to multidisciplinary centers/ departments. All over pan India. Innovation and research will be the main pillars of India which will make India a knowledge superpower expert. The NEP reforms contain a Holistic and multidisciplinary education system, multiple entry and exit system, credit transfer, and 5+3+3+4 system.

These reforms are based on a few parameters, based on two committee's forms i.e.

1. TRS Subramanyam Committee formed on May 2016.

2. D.K. Kasturirangam Committee submits the Draft National Education Policy to the union HRD Minister.

Our Government surveyed and analyzed and asked around 2,50,000 Gram Panchayats, 6000 blocks took 6000 ULBs (Urban Local Bodies) reviews held sessions and had a chat with 676 districts took an initiative and made an Audio Book Draft summary in 22 Languages,

Then held an Education dialogue with all MPs and a special meeting with CABE (Central Advisory Board of Education).

2. REVIEW OF LITERATURE

2.1 DR. Sudhanshu Bhushan: Commonwealth Educational Media Centre for Asia (CEMCA) How Multidisciplinary and Holistic approach can develop a high-quality Higher Education System. In this article, the author analyzed the NEP as an important policy document that provides the vision of the government for modernizing education and its uses rules, and regulations. How does it work etc?

2.2 Prof. Geer Mohammad Ishaq: Unifying Knowledge through multi-disciplinary and holistic education. This article is based on the excerpts from a talk delivered by the author during the first Techfest of IoT, Zakura on December 13, 2022, where he took an analysis of what NEP means to students.

2.3Anita Priyadarshini and Deeksha Dave: Holistic and Multidisciplinary Education through open and distance learning to realize the vision of National Education Policy-2020 In this paper, the author has researched Academic Excellence and the development and delivery of Multidisciplinary Education, and the use of technology and curriculum Planning and Design. And studied open and distance learning systems and Multicultural Education.

2.4 International Journal of Advanced Research in Science, Communication, and Technology (IJARSCT). Volume 2, Issue 5, April 2022.'In this Journal they have focused on research and innovations of NEP In India, what India had done with the adjustments of the structure and lengths of Degree Programs, and movement in Holistic and Multidisciplinary Education.

3. OBJECTIVES OF RESEARCH

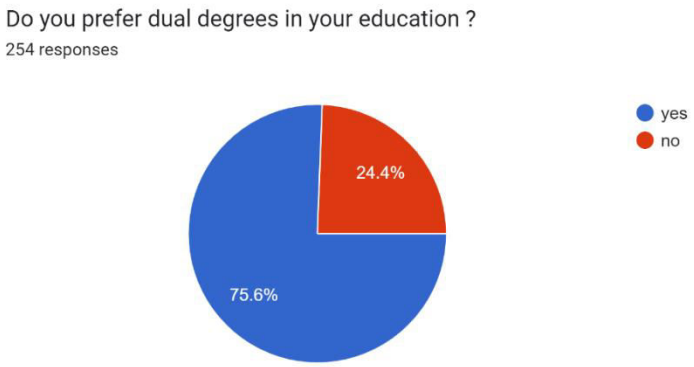
1. To study the general role of students in NEP.
2. To find out the opinion of the students on Multidisciplinary Education.
3. To find out what exactly is Multidisciplinary Education.
4. To study how NEP helps students in the current Scenario.
5. To study the participation of students in Multidisciplinary Education.
6. To study the trends and their Awareness of NEP among students.

4. RESEARCH METHODOLOGY

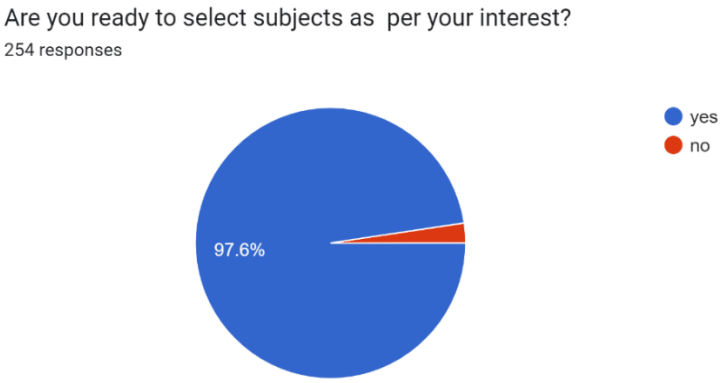
This is a fact-finding research approach. The research was based on the survey method. The survey of students was conducted for knowing the responses to Upcoming education policies. Students' opinion and their interest in the application of Multidisciplinary Education in colleges.

4.1 Sources of Data:

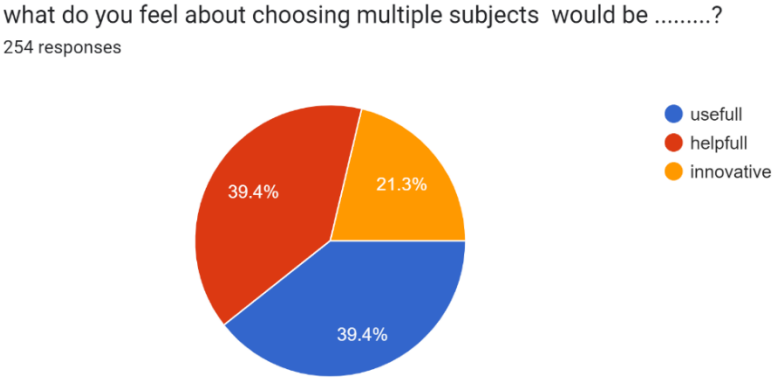
Data were collected by using primary and secondary sources.



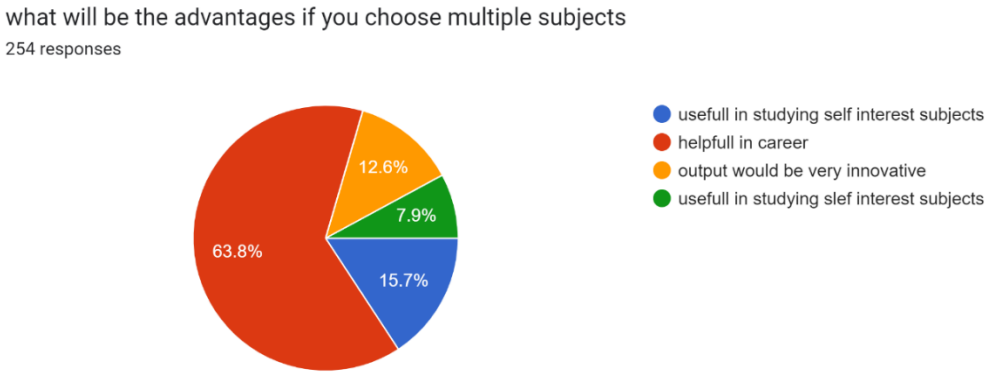
This pie chart shows how much students prefer as per their choices to get a dual degree in their education. so 75.6% of students agreed to dual degrees in their education and 24.4% students disagree with a dual degree so the weightage for opting dual degree is more compared to the not accepting dual degrees option in their Education.



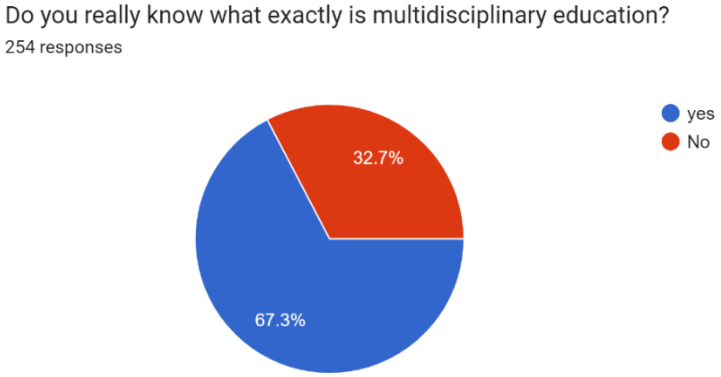
In this pie chart, 97.6% of students are ready to select subjects of their interest and only 2.4% of students are not willing to select subjects as per their interest, which means the majority of students agreed and are ready to select their interest subjects in their education



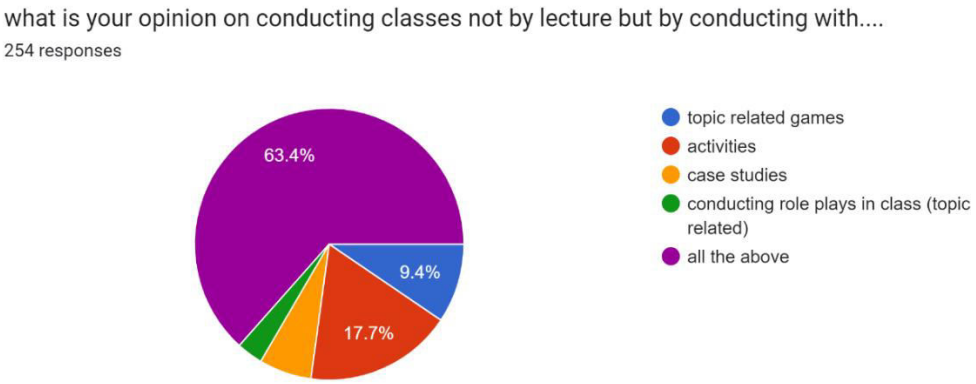
In this pie chart, 39.4% of students thought choosing multiple subjects will be useful and same 39.4 % of students have the opinion of choosing multiple subjects would be helpful, and 21.3% of students felt that this idea is very innovative and on average all the students agreed and felt would be helpful in all means.



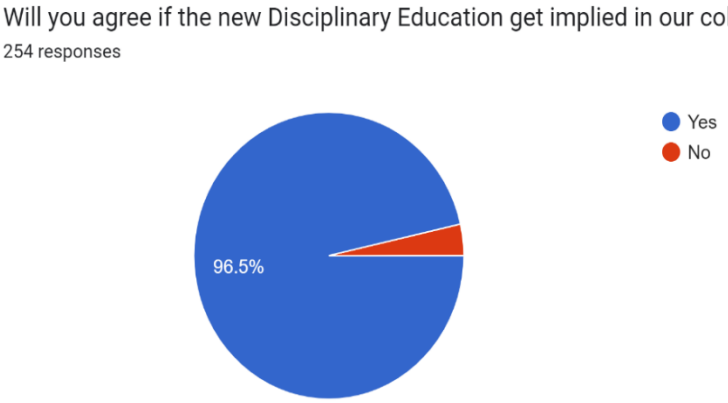
In this pie chart, 63.8% of students felt the choice of multiple subjects would be helpful in their career and 15.7% felt that it would be useful in studying self-interest subjects,12.6% of students said the output of this choice would be very innovative and 7.9% thought it will be useful in studying their self-interest subjects resulting getting good output from students in their study and thoughts and the outcome would be wider than normal education.



In this Pie chart, 67.3% of students know what is a Multidisciplinary Education and 32.7% students do not know what is Multidisciplinary Education, by this pie chart, we can realize how much exactly is awareness of Multidisciplinary Education among students.



In this pie chart, there is a study on opinions of conducting classes in classrooms not by the one-way lecture but in conducting in different ways where it shows 63.4% of students agreed on all the given options which include topic-related games, activities, case studies, and conducting role plays in class which are related to the topic of the lecture. Here remaining 6.3% of students opted only for case studies and 3.1 opted only for conducting only role plays.



In this pie chart, 96.5% of students are ready to agree to get implied Disciplinary Education in their colleges and only 3.5 % of students are not ready to welcome NEP in their college.

That means throughout the survey we got positive feedback and acceptance of all NEP policies by students in their points of view.

6. FINDINGS OF THE STUDY

1. Most of the students participated in an online survey, and gave positive feedback. Hence most students like to come to colleges where their preferences in studies are kept on priority bases and get valued.

2. More than 50% of the students have the awareness of the Multidisciplinary Education

3. Most of the students felt and are aware of the advantages of the Multidisciplinary Education

4. Many students want lectures to be in active mode by conducting in different ways rather than only a passive way of teaching.

5. Many students want to select their subjects by their interests.

6. Most of the students want to participate in many NEP.

7. CONCLUSION

All the students can accept the policies easily. It is a requirement of the current situation. Many students are more comfortable in the implementation of National Education Policies under Multidisciplinary Education, it would be valuable in the case of multiple entry and exit.

It is more focused on the life skills of the students, and more importance is given to skill development as when students come out of the education system they are groomed very well in their chosen streams and the outcome of the students may be unbelievable which may again, be useful to develop societies which directly reflect to become India a developing country.

In this study, students are very much ready to accept and their role is very cooperative and acceptable to all the policies related to multidisciplinary education.

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NATIONAL EDUCATION POLICY 2020 AND GLOBAL EDUCATION

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ABSTRACT

The National education policy of India 2020, approved by the Union Cabinet of India on 29th July 2020, outlines the vision of the New Education System of India. It replaces the previous National Policy on education 1986. The vision of the policy is to build an education system rooted in the Indian ethos that contributes directly to transforming India by providing high-quality education to all, thereby making India a global knowledge superpower.

Under the heading of the New Education Policy, the policy is going to focus on internationalization of education. The various initiatives mentioned in the policy will also help in having a large number of international students studying in India making India a 'Global Study Destination'. It will also help students in India who may wish to visit, study at or to transfer credits to or carry out research at institutions abroad and vice versa. Courses and programs of various subjects will be fostered with the goal of attaining the global education standards. As the New Education Policy 2020 will bring the opportunity for foreign universities to have campuses in India it will encourage Indian universities to build strong partnerships with international universities, this will lead to an innovative curriculum in the knowledge society.

Keywords: NEP 2020, education reforms, global education, internationalization.

INTRODUCTION

The Indian government created the National Policy on Education (NPE) to encourage education among its citizens. The policy encompasses both rural and urban India's primary and secondary education through colleges. Prime Minister Indira Gandhi issued the country's first NPE in 1968; Prime Minister Rajiv Gandhi issued the second in 1986; and Prime Minister Narendra Modi issued the third in 2020. The aim for India's future educational system is described in the National Education Policy 2020 (NEP 2020), which was adopted by the Indian Union Cabinet on July 29, 2020. The old National Policy on Education, 1986, has been replaced with the new policy. The policy is a comprehensive foundation for vocational education from elementary school to higher education.

The Indian government has consistently prioritised increasing the literacy rate since the country's declaration of independence in 1945. According to different sections of the Indian Constitution, children between the ages of 6 and 14 have the fundamental right to free and compulsory education. Government schools, privately run schools with government funding, for-profit schools, and international schools are the main providers of education in India. In 2019, there were around 15, 22,346 recognised elementary, secondary, and upper secondary schools, according to the Education Statistical Yearbook.

The "National Education Policy 2020 (NEP 2020)" was approved by the Narendra Modi administration on July 29, 2020, with the goal of completely overhauling India's educational system by the year 2040. After a 34-year hiatus, the NEP implemented a host of educational changes in both the higher education and school sectors. Instead of an incremental reform, it aims to bring about a systemic one in the field of education. The NEP 2020, which aspires to address our nation's current developmental imperatives, is the first education policy of the twenty-first century. The Policy suggests overhauling every area of the current educational system, including its governance and regulation, in order to create a new educational framework that is in line with the aspirational goals of the twenty-first century.

Internationalization of education is a major focus of India's New Education Policy (NEP). The NEP has laid out an ambitious plan to make internationalization of higher education a reality by 2030 and aims to make India a "global study destination" by promoting excellence through internationalization. The various initiatives mentioned in the policy will also help in having a greater number of international students studying in India, and provide greater mobility to students in India who may wish to visit, study at, transfer credits to, or carry out research at institutions abroad, and vice versa," the new education policy states under the heading "Internationalization".

Indology, Indian languages, yoga, arts, music, history, culture, modern India, internationally relevant curricula in the sciences, social sciences, and beyond, meaningful opportunities for social engagement, high-quality residential facilities, and on-campus support, among other things, are all offered in courses and programs. Will be encouraged to achieve this objective of setting global quality standards, attracting more international students, and "internationalization at home". We can deduce from this clause that the goal of NEP-2020 is to prevent brain drain by allowing foreign universities to establish campuses in India. They believe that allowing top-ranked foreign universities to establish campuses in India will encourage India's talented students to remain there and raise the standards of Indian universities. According to the NEP 2020, India should be re-established as a Viswa Guru and promoted as a "Global Study Destination" that offers high-quality education at reasonable prices. It is also believed that the exchange of ideas between Indian and international institutions will result in innovative curricula and the construction of a knowledge society. The NEP also encourages Indian universities to establish strong partnerships with international universities.

REVIEW OF LITERATURE

1. Revisiting NEP 2020 from The Perspective of Global Education And Knowledge Society in life/philosophy by Bhumika Rajdev.

In this study the research scholar attempts to study the New Education Policy 2020 by the view of global education. This study emphasizes the benefits and new opportunities to the global education to students in India.

2. International Journal of Business and Management Research (IJBMR) Open Access | Rapid and quality publishing. Review Article | Volume 9, Issue 3 | Pages 302-306 | e-ISSN: 2347-4696 293 Website: www.ijbmr.forexjournal.co.in New Education Policy 2020 of India: A Theoretical Analysis

This article emphasizes a theoretical study and analysis of the National Education Policy 2020. This study covers all the important reforms and the extended opportunities of education in India as well as global education opportunities.

RESEARCH METHODOLOGY

The current research study is based on the secondary data. During the research study of NEP 2020 various news articles were also examined for the research. The secondary data includes browsing through the Indian education ministry website and many other websites that provided information about the National Education Policy. To prepare this research paper the research scholar did thorough examination of various government publication articles and journals analyzing the National Education Policy 2020.

OBJECTIVES

1. To understand the National Education Policy 2020 and its reforms.
2. To study how the National Education Policy 2020 will pave way to achieve global education standards.
3. To study how the National Education Policy will pave way for India become a Global study destination.

Hypothesis

Considering the various reforms mentioned under the National Education Policy 2020, such as 50% gross enrollment ratio in future, multidisciplinary approach, credit transfer and academic bank of credits etc.; the research study assumes the following reforms after the implementation of the National Education Policy 2020.

- Internationalization and promotion Of India as Global study destination.
- Multidisciplinary approach to cover a wide range of subjects.
- Top 50 foreign universities to set up in India paving way to global education.

1. Internationalization and the promotion of India as a destination for higher education around the world are two goals outlined in NEP 2020. One of these goals is to facilitate faculty-student and research-teaching collaborations with high-quality foreign higher education institutions and to sign relevant memorandums of understanding that are beneficial to both parties. Encouraging Indian universities with high performance to establish campuses abroad; It will be made easier for some universities, like those in the top 100 worldwide, to operate in India; establishment of an International Student Office at each Higher Education Institution to welcome and assist international students; counting credits earned at other universities, if necessary in accordance with each HEI's requirements; AYUSH systems of medicine, yoga, arts, and courses and programs in various subject.
2. The term "multi-disciplinary" is frequently used but only rarely understood. Simply stated: It is a method of education that covers a wide range of subjects and combines several academic disciplines. It is frequently used to describe a liberal approach to education in college brochures. However, NEP 2020 assures us that this model need not be familiarized until higher education. Commerce, the arts, and science will all fade away. Students will no longer have to limit themselves to a small number of subjects as a result of the elimination of the three distinct streams system. Students will have more options for what they can study and will be able to choose subjects that fit their interests better. For instance, you can study all of these subjects simultaneously if, in addition to your interest in business and chemical bonds, your passion is history. Don't worry. The primary objective is to ensure that students achieve their full potential by assisting them in becoming more collaborative in their methods and flexible in their thinking.
3. NEP discusses granting permission to the top fifty international universities to establish campuses in India. Its purpose is to provide students with a "global education." Concerns about "global discrimination" are raised by it. How? How will hierarchy be established? The

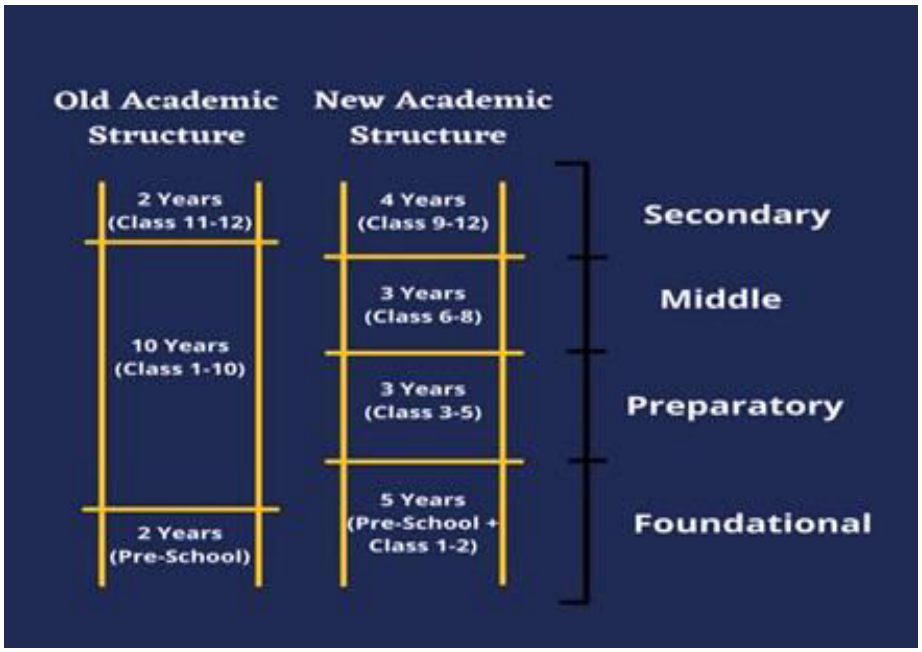
more university hierarchies we establish, the more discrimination we encourage. Higher education at these foreign institutions will be prohibitively expensive, accessible only to a select few in the nation. Education will become more commercialized as a result. How? This step will make the already widening gap between "rich" and "poor" students even wider. Additionally, NEP discusses providing them with academic autonomy. Academic autonomy may be granted, but appropriate regulatory mechanisms should be in place to guarantee compliance with national regulations.

The Indian Education System

The Indian government has consistently prioritised increasing the literacy rate since the country's independence in 1945. According to different sections of the Indian Constitution, children between the ages of 6 and 14 have the fundamental right to free and compulsory education. Government schools, privately run schools with government funding, for-profit schools, and international schools are the main providers of education in India. In 2019, there were around 15, 22,346 recognised elementary, secondary, and upper secondary schools, according to the Education Statistical Yearbook. In India, there are roughly 5 private schools for every 7 public schools. With 29% of children in the 6 to 14 age range attending private schools, the private school system competes with the public school system at the elementary and secondary levels. The "10+2" educational structure is presently followed by the central board and most state boards. The first ten years of this structure are spent in school, followed by two years of higher secondary education and graduation. The first ten years are further divided into six years of high school and four years of primary education. The 10+2 method was suggested by the Education Commission of 1964–66.

Reforms of the National Education Policy 2020(NEP)

11^{th}-12th refers to two years of schooling post grade 10. According to India's new National Education Policy (NEP) 2020, 10+2 schooling system in India is set to be replaced by a new 5+3+3+4 system. Here is the age-wise breakdown of the different levels of the school education system based on the new education policy 2020.



- 5 years of Foundational Stage:-For ages: 3 to 8- For classes: Anganwadi/pre-school, class 1, class 2

This stage will focus on teaching in play-based or activity-based methods and on the development of language skills.

- 3 years of Preparatory Stage:- For ages: 8 to 11- For classes: 3 to 5

The focus in the preparatory stage will remain on language development and numeracy skills. Here, the method of teaching and learning would be play and activity-based, and also include classroom interactions and the element of discovery.

- 3 years of Middle Stage: -For ages: 11 to 14- For classes: 6 to 8

As per NEP 2020, this stage of school education will focus on critical learning objectives, which is a big shift from the rote learning methods used in our education system for years. This stage will work on experiential learning in the sciences, mathematics, arts, social sciences and humanities.

- 4 years of Secondary Stage: -For ages: 14 to 18-For classes: 9 to 12

This stage will cover two phases: Classes 9 and 10, and classes 11 and 12. Concepts will be covered in greater depth in this stage.

- The National Education Policy has set the age group for the right to education (RTE) to 03 to 18 years. The NEP 2020 gives attention to factors like access to education, affordability, quality, accountability and universalization to Early Childhood Care Education (ECCE). The National Education Policy 2020 promotes the multilingual approach. As per NEP 2020 the medium of instruction for students will be the in mother-tongue language till 5th class. Students will get to learn coding from an early age of 6th grade.
- **Internationalization in India**

NEP 2020 also makes it possible for foreign universities and colleges to come to India, which makes it harder for Indian institutions to raise the quality of the education they provide. The possibility of paving the way for foreign universities to establish campuses in India has the higher education sector of India abuzz. With over 900 universities and 40,000 colleges, India has one of the world's largest networks of higher education systems.

However, India's GER (Gross Enrolment Ratio) in higher education is 26.3%, which is significantly lower than the BRICS countries of Brazil (50%) and China (51%) and the European and North American countries (which would be over 80%).

For India to achieve sustainable economic growth, which should not be driven by natural resources but rather by knowledge resources, it must see significant growth in global higher education. The Indian government wants to promote FDIs (Foreign Direct Investment) and open

up the ECB (External Commercial Borrowing) route in order to strengthen capital investment for the education sector. According to reports, India will need another more than 1,500 new higher education institutions by 2030 to accommodate a large inflow of students.

Due to the fact that more than 7 lakh Indian students are currently pursuing higher education abroad, the ministry is also working to improve India's reputation as an educational hub. Therefore, the goal of this policy is to significantly reduce the amount of human capital that travels to other nations to study and find work by allowing foreign universities to offer world-class education locally at significantly lower costs without the need to travel. Cross-border education is beneficial to the economy, bringing a greater level of global awareness, cultural sensitivity, and competitiveness, according to various global surveys. Local institutions can design their curriculum in accordance with international pedagogy and provide students with a wide range of subjects and specializations thanks to international collaborations.

SUGGESTIONS

Will obtain primary education from third to fifth grades. Age range of visitors is between 8 and 11 years old. The child must lessen his or her reading load in this class. Children should be educated through moral tales throughout this stage in order to facilitate the child's holistic development. At this point, bagless education should also be given.

The youngster gains environmental information throughout the secondary period. The government may provide children with midday meals, bicycles, and de-warding services like Navodaya, NSS in addition to other things. Such social activities should be included and performed by the students.

Also. There should be a textbook and a 50% evaluation and the other 50% evaluation to be based on the extra curricular activities and overall skills of students. Holistic development of students to be considered in annual evaluation.

CONCLUSION

Without a plan for implementation, NEP 2020 looks like a fantastic concept. The policy must provide an answer to the question of how this goal may be achieved in order to pave the path for India's higher education systems to undergo revolutionary reforms that would turn it into a worldwide knowledge superpower. In this "global society," it is crucial to strike a balance between keeping national uniqueness and competing on a global scale. Students won't become critical thinkers as a result of education's ongoing commercialization. Thus, it may be inferred that NEP 2020 has a conflicting position with regard to higher education. If there is no concrete plan for implementation, it will merely be wishful thinking.

A comprehensive national education policy is developed by a nation to meet this requirement because education is an essential and indispensable component for the overall development of any society and nation. An important step in this direction is the New National Education Policy, 2020, which was approved by the Indian government. How this new education policy is implemented will determine its success. As a result, India has the youngest population in the world, and the country's future will depend on providing these youngsters with high-quality educational opportunities.

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THE ANALYTICAL RESEARCH OF THE EFFECT OF NATIONAL EDUCATION POLICY 2020 ON HIGHER EDUCATION

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ABSTRACT

The main effect of the National Education Policy 2020 (NEP 2020) on Higher Education is almost doubling the GER which means Gross Enrolment Ratio in Higher Education to 50 percent by the year 2035 which is in comparison with the current GER of 26.3 percent. As announced by the Government of India National Education Policy 2020 was a welcoming change and during the period of covid-19 pandemic there were various challenges and negativity in the surrounding in which this Policy arose. Having a well outlined Education Policy was very important at every position of schools and colleges which helps in social welfare and betterment in an economic related context.

This Analytical Research Paper is based on the briefing of effects of National Education Policy 2020 on Higher Education, it's merits and demerits, various suggestions made in the procedure before the National Education Policy 2020 (NEP 2020) came into action , it's effects on Higher Education after the Covid -19 Era and various strategies analysis while implementing the policy and discussions.

Keywords: NEP 2020, Effects, Higher Education

● INTRODUCTION

The full form of NEP 2020 is National Education Policy 2020 which brings an astonishment in fundamentals of education. And National Education Policy 2020, it is a policy decided by the Government of India to spread awareness of Education among Indian Citizens. Education plays an important role in every student's life. This Policy covers elementary education to colleges in both rural and urban India. The first NEP was introduced by the Government of India in 1968 , the second was in 1986 and the third one is by Prime Minister Narendra Modi in 2020.

The Union Cabinet of India approved this New National Education Policy 2020 better known as (NEP 2020) on 29th of July 2020, which outlines the vision of India's new education system. The new policy replaces the previous National Policy on Education, 1986.

Education makes a student's future better. It's hard to survive without any Education in today's growing world. Though the Education Policies should be made more and more better. The main aim of Quality Higher Education is to develop individuals who are excellent, thoughtful, creative and well rounded. It must enable a person to study one or more specialized areas of interest at an in depth level and develop character, ethical and constitutional values, scientific temper , services print, creativity, intellectual curiosity and the skills of the 21st century across a range of fields, including sciences, social science, humanity, the art's, languages., subjects. The new NEP 2020 brings some changes to the current system and key highlights are multidisciplinary universities and colleges with at least one or near every district, evaluation and support for enhanced student experience, establishing a National Research Foundation to support excellent peer-reviewed work and effectively study at universities and colleges.

● REVIEW OF LITERATURE

1. Kalyani et al. [15] has reported the effect of four challenges of NEP 2020

namely quality, equity, affordability, accountability and access to the associated stakeholders (students, teachers and parents). According to NEP 2020, minimum eligibility for recruitment of

government teachers will be a four-year B.Ed. degree and Teachers Eligibility Test (TET) certificate.

2. Ilkogretim Online - Elementary Education Online, 2021; Vol 20 (Issue 2): pp. 1050-1055 http://ilkogretim-online.org doi: 10.17051/ilkonline.2021.02.118. outlines several policies that have been announced for the higher education system and contrasts them with the one that is now in place. The advantages of various innovations and the anticipated effects of NEP 2020 on the Indian higher education system are explored. Finally, certain recommendations are made for its successful implementation in order to accomplish its goals.

- **RESEARCH METHODOLOGY**

In this research study researchers use secondary research Methodology (Google, some websites etc.) Secondary data is a research method that involves using already existing data. Used data available on the internet, Educational institutions some government and non government websites as well as articles, publications such as magazines, journals, etc. The inferences and conclusions were then drawn from the analysis and examination of this data.

- **OBJECTIVES**

1. To highlight the policies of the recently or newly accepted Higher Education System that is NEP 2020.
2. To observe the pros and cons of Higher Education Policies of NEP 2020
3. To receive flexibility in subjects in Higher Education.

- **HYPOTHESIS**

1. Though the National Education Policy 2020 really affects all types of education, and schools and colleges, universities and also it also affects Higher Education as well.

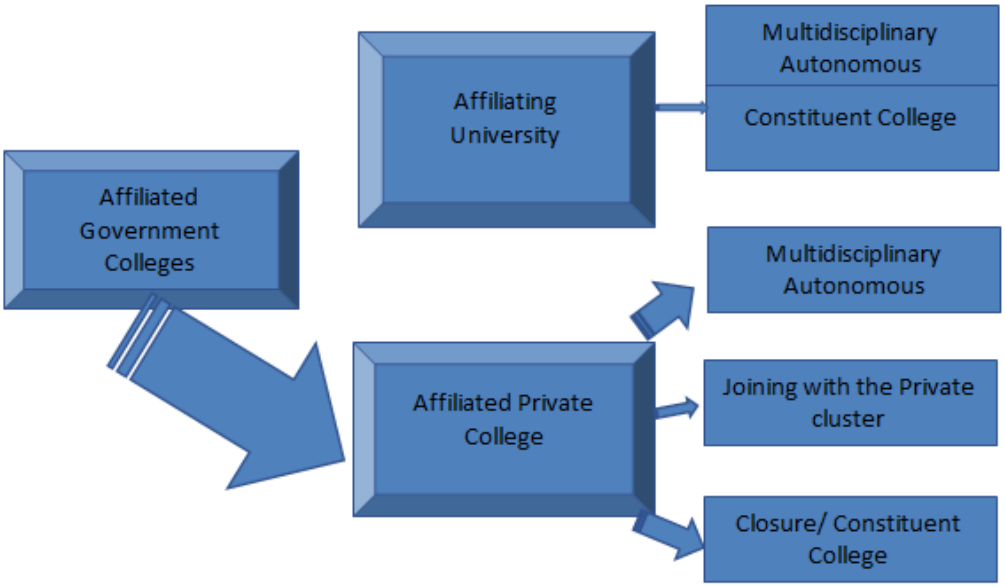
2. **So** according to researcher National Education Policy 2020 (NEP2020) has a good Higher Education System

3. Students get new opportunities, ways for learning innovative various techniques to improve their quality education.

The NEP 2020

The new NEP 2020 has been introduced with an intention to formalize changes in the system from school level to college / University level. Remembering the developing scenario, it will focus on ideas, key concepts and problem solving angles. The expectation of National Education Policy 2020 is to bring positive and long-lasting effects on the Higher Education System of the country

Another positive step is the introduction of a single common entrance test which will minimize the stress of multiple competitive exams. Level playing ground for all students going forward is ensured in this Policy. Setting up the Academic Bank of Credit (ABC) is definitely a blockbuster idea to store the academic credits. In (ABC) it says that students earn credit points by taking courses from various recognized Higher Education institutions. A student can earn marks by completing a course and it will be credited to the ABC account. There are many new developments which have been introduced by NEP2020 in the Higher Education sector.



Some Benefits in NEP2020 Relating to Higher Education Policies

1. The main goals of United Nations Sustainable Development Goals is to give Quality Education to all students. That's why in NEP 2020, the private sector must give 20% free-sit and 30% scholarship to all meritorious students who are belong to economically disadvantaged groups; so that they can get opportunities to study. These free education helps to increase the Gross Enrolment Ratio (GER) at Higher Education level in the country.
2. All Higher Education Institutions have freedom for doing any kind of innovation in regarding to curriculum, examination, courses, pedagogy and evaluation system; as the quality of education will also improve. If the institutions does not have any freedom then the motivation and quality of a faculty members and students get more affected.
3. In NEP 2020, the productivity of a faculty will be based on research output. In higher the education system and research is a very important thing. So, a faculty members must have motives and experiences in research work so they can be a role models for their students. Their performance is only depends on their research work and publication work.

The higher education industry has undergone numerous adjustments and new advancements because of NEP.

The following standout characteristics

• Establishing a Single Regulatory Organization for Higher Education:
With the exception of legal and medical education, the NEP proposes to create the Higher Education Commission of India.

• Multiple Enter and Exit Possibilities:
For individuals who choose to drop out of the course in the middle, there will be multiple entry and exit options. The Academic Bank of Credits will transfer their credits.

• Tech-Based Options for Adult Education via TV Channels and Apps:
Apps, online courses/modules, satellite TV channels, online books, ICT-equipped libraries, adult education centers, and other high-quality technology-based learning options will be available.

• E-Courses Will be Offered in Regional Languages.
Technology will be included into educational planning, instruction, assessment, teacher, school, and student training. The e-content will be offered in regional languages, beginning with 8 major ones. In addition to Bengali, Kannada, and Odia, there will also be e-courses in Hindi and English.

• Top 100 International Universities to Open Campuses in India:
A new regulation would make it easier for these institutions to operate in India. Such (foreign) universities will have special accommodations in terms of regulatory, governance, and content standards comparable to those of other autonomous institutions in India, according to the HRD Ministry document.

• SUGGESTIONS

All multidisciplinary institutions must have at least five disciplines. The main objective of multidisciplinary institutions is to give multidisciplinary experience and choice. Some disciplines are as follows – Computer Science, Languages, Social Science, Basic Science, Education, Engineering, Medical Science, Dental Science, Indology, Indian Medicines. In Higher Education institutions there should be a maximum use of technology-based training methods such as – weekly two days online classes, weekly three days classroom-based learning, weekly one day for vocational/industry/classroom based/skill based online, and two subjects per semester through MOOCs .At Higher Education levels, a vocational training should be strengthened; so, the students are able to develop the skills in their own interest area and they able to work some kind of productive activities; to reduce dependency upon their parents. It will be very helpful for the students if the publication of papers is made compulsory in their post-graduation courses. In under-graduate courses, the awareness which is related to IPR should be provided.

• CONCLUSION

While deciding the economy, social status, adaptation of technology and healthy human behavior in every country Higher Education plays an important role. It is the responsibility of the department of education of the country government to improvise the (GER) Gross Enrolment Ratio in order to include every citizen in the Higher Education. India's NEP 2020 is achieving its goal in the following direction such as making policies in an innovative manner to improve the quality, attractiveness and to increase the supply by opening Higher Education for the private sector along with a strict major to improve the quality in institutes of Higher Education. The System of Higher Education will convert itself into the student oriented form which will provide students freedom to select the basic subject in a disciplinary manner. Our country, the Indian Higher Education System has shifted from teacher centered to student centric and also from providing information to providing knowledge. And also the concentration has shifted from obtaining marks to enhancing the skills and also from examination centric to experiment orientation.

The new education policy has an admirable aim, but its effectiveness in achieving a cogent structural transformation will depend on how well it can work in tandem with other government policy initiatives like Digital India, Skill India, and the New Industrial Policy, to mention a few. Thus, policy linkages can ensure that educational policy takes into account and learns from Skill India's experience in more actively collaborating with the corporate sector to create a successful vocational education programme. In order to adjust to the fast changing transmutations and disruptions, more evidence-based decision-making is also required.

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MULTIDISCIPLINARY EDUCATION AND IT'S CHALLENGES

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ABSTRACT
The authorities of India brought the national education policy 2020. The National Education Policy (NEP)–2020 highlights holistic and multidisciplinary education with an intension to offertwenty first century abilties to newbies.Abilties which include dynamic gaining knowledge of,trouble solving, essential wondering, logical improvement, and analytical studying via practical circumstances need to be examine and must be prioritized in the educational curriculum. A holistic and multidisciplinary education would help all-round improvement of an individual.The NEP focuses on bringing changes in the duration of the degree programme and imposing more than one entry-exit options to the newbies. To enhance the qualitative and quantitive research in higher education institute (HEI), the NEP furnished with putting in of NRF (National Research Foundation) with a purpose to investigate funding research suggestion, coordinating with industry and academia for studies collaborationsThe Policy pursues fundamental transformation in higher education by implementing innovative and ambitious plans while identifying the complexities and challenges of higher education.

Keywords: NEP 2020, Holistic approach, Multidisciplinary education, Research and Development.

1. INTRODUCTION
In former times, people just alert on academics and the results while ignoring research to confirm their work. Hence there is requiring different reforms in school education as well as higher education including technical education. However, with changing times, research has full priority over many things instead of our entire focus being on teaching, we are affecting gradually towards research. National Education Policy 2020 has been announced on 29.07.2020. NEP 2020 proposes moving away from proficiency in a single subject to Multidisciplinary education and research college (MERU) such that the individuals can analyze comprehensively. MERU will embody technology, social science, arts, humanitarian, languages, liberal arts (tender talents, math, vocational guides, expert capabilities), etc. In National Education Policy 2020 mentioned a number of action points/activities for implementation in school education as well as higher education. NEP–2020 states that such "training would be aimed toward developing all capacities of human beings – highbrow, aesthetic, social, bodily, emotional, and moral in an included way" (NEP, 2020).The Policy emphasizes the importance of holistic and multidisciplinary education through both disciplinary and professional programmes for developing competencies of critical thinking, adaptability and self-management amongst learners. A holistic education paves approach for entry into the student's choice of professional, vocational and technical disciplines. The choice based subjects in the school curriculum provide for in-depth learning for the students and also develop a well-rounded personality. A multidisciplinary curriculum means studying the same topic from the viewpoint of more than one discipline. A multidisciplinary approach in education is a way of learning which gives a main spotlight on diverse perspectives and unlike disciplines of learning to demonstrate a theme, concept, or any issue. That's why in today's hyper-competitive world, limitless learning, a unique educational system that promotes a multi-disciplinary approach to help students gain perspectives and knowledge in different ways. The NEP 2020 envisages upon the bringing back the multidisciplinary and more holistic education in India in the 21st century.

2. OBJECTIVES OF HOLISTIC AND MULTIDISCIPLINARY EDUCATION

- A holistic and multidisciplinary education would help all-round development of an individual. It is developing aesthetic, social, intellectual, physical and moral skills in an integrated manner.
- More flexibility in curricular structure will provide the multidimensional challenges and opportunities to students for multidisciplinary work, including in academic institutions, government agencies, and industrial setup.
- To get better results in creativity, development of critical thinking, decisions making skills, problem-solving abilities.

3. METHODOLOGY

A mixed-mode of examining for theoretical conditions, and Meta analytical study, with the helpful role of Axiological models to get together value inputs of quantitative and qualitative in nature. This study can act as a base for future research based on empirical investigations and the impacts of NEP 2020 after its implementation can be found. However, this research can be taken as base for further study on different aspect of NEP 2020.

4. THE PRINCIPLES OF NEP-2020

- ✓ Recognizing, identifying, and fostering the unique capabilities of each student
- ✓ Achieving foundational literacy and numeracy
- ✓ Flexibility
- ✓ No hard separations
- ✓ Multidisciplinarity & holistic education
- ✓ Emphasis on conceptual understanding
- ✓ Creativity and critical thinking
- ✓ Ethics and human & constitutional values
- ✓ Promoting multilingualism and the power of language
- ✓ Life skills
- ✓ Focus on regular formative assessment for learning
- ✓ Extensive use of technology
- ✓ Full equity and inclusion
- ✓ Teachers and faculty are at the heart of the learning process
- ✓ Outstanding research

5. THE CHALLENGES OF HOLISTIC AND MULTIDISCIPLINARY EDUCATION

- Schools need to equip themselves with experienced staff who are capable of delivering such an approach and ensure they have the necessary resources.
- Additionally, there needs to be greater collaboration between different departments and institutions to ensure successful implementation.
- Many school systems lack the infrastructure and support needed to successfully integrate multidisciplinary learning.
- Digital divide- The new policy emphasizes the use of technology, digital literacy, and coding from an early age. Many students who belong to the rural areas were not able to attend

classes online because they did not had access to mobile phones and internet. Some students had to travel far away places from home to attend classes because of low connectivity issues.

In order to make multidisciplinary education a success, it is essential that we focus on improving the quality of instruction and making sure students are engaged with their studies. Students should be given the freedom to explore different topics, develop critical thinking skills and gain a deeper understanding of how different subjects interact with each other. With the right support and resources, multidisciplinary education can revolutionize the Indian education system and provide students with the tools they need to thrive in the modern world.

6. CONCLUSION

Through Multidisciplinary and holistic education, the NEP envisioned to nurture a curious and creative mind and develop analytical and critical thinking among the learners at early age.The Indian government a lot of changes would be required to be brought to the curriculum of higher education absorbing the global demand for receiving skilled manpower. Thus, implementation NEP 2020 would be a big challenge. The policy is bound to introduce revolutionary and pioneering changes. A multidisciplinary approach in education is often seen as the ideal way to attempt complex problems and will be essential for India's continued success in the global economy. With the NEP 2020, India is well positioned to make on its current educational system and move towards a more multidisciplinary approach.

ACKNOWLEDGEMENTS

The authors would like to express gratitude to the Smt. Kusumtai Rajarambapu Patil, Kanya Mahavidyalya, Islampur provided facility for the paper.

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RELEVANCE OF PSYCHOLOGY IN THE CURRICULUM OF B.SC. [CHEMISTRY] AS A MULTIDISCIPLINARY APPROACH IN EDUCATION

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ABSTRACT
Psychology and chemistry are interconnected in two main ways as per multidisciplinary approach is concerned. First, biopsychology - the approach to psychology that focuses on organic causes of psychological phenomena - uses various aspects of chemistry in order to explain various behaviours in humans it also focuses on different functions of brain and their effects on our mood and cognition. The activities of neurotransmitters and many hormones are involved in the functioning of the brain. The nature and extent of the effect caused by these hormones can now be determined by studying their chemical properties. So the subhead of biopsychology includes many aspects and concepts of chemistry as a discipline. Second, the field of psychotropic medicine - the area that focuses on medication for treating psychological disorders - conducts research based on bio psychological concepts consisting of chemical changes and hormonal imbalance. The fluctuations and alterations in chemical structure of these hormones give rise to many diseases in abnormal psychology; psychotropic medicinal field produces medications according to those alterations and provides rehabilitation to the patient.

It can be concluded that, psychology holds good when chemistry is studied as a discipline, because studying brain chemical reactions without neurons and neurotransmitters is like studying cardiology without the Heart.

Keywords: Chemistry, Psychology, Neurotransmitters, New Education Policy (NEP)

INTRODUCTION
Multidisciplinary refers to an approach to a topic or problem that combines or involves a number of academic fields or professional expertise. A multidisciplinary approach aims to redefine problems outside of their typical parameters, supported by multiple methods from other academic fields, and to arrive at solutions based on a fresh comprehension of difficult situations.

Here two academic fields involved are psychology and chemistry as per multidisciplinary education is concerned, the study of psychology focuses mostly on behaviour and the workings of the human mind. Psychology and chemistry are related because chemicals have an impact on our emotions and actions. Neurotransmitters [1] release and re-uptake is one of these processes. Chemical messengers or neurotransmitters are endogenous substances that allow for neurotransmission. They transfer information from one neuron (nerve cell) to another "target" neuron, muscle cell, or gland cell through a chemical synapse, such as a neuromuscular junction. More than 100 substances in our brains direct the actions of the body and brain. These substances can contribute to a variety of psychological issues, including depression and bipolar illness, if they are out of balance. Such imbalances may be brought on by chemicals we consume. Other substances, when used as medicines, can help to restore chemical balances. Norepinephrine, serotonin, and dopamine are three most significant chemicals that affect our moods and behaviour. There are more than 100 naturally occurring neurotransmitters like Octapamine, Glutamate, and Gamma - amino butyric acid, Acetylcholine, Histamine, Tyramine, Asparagine, Synephrine, Virodhamine, Dynorphin, Galanin, Kisspeptin, Secretin, Vasopressin, Tryptamine, Anandamide, Motilin, Orexin B, Enkephalin and Glucagon etc.

Since the 19th century, psychologists have engaged in a rich research of the phenomenology of

human mind. Now, each of these substances, whether they are neurotransmitters or neurohormones, is instruments of numerous brain processes that are still being studied by neurophysiologists.

And based on these discoveries, it has been discovered that functional or pathological changes in the brain's chemistry are closely related to specific behavioural disorders (such as anxiety, sadness, fear, etc.) or key elements in the pathology of cognition (such as schizophrenia, etc.).

In a method that has enabled us to examine the pharmacology of psychological activity with safety and confidence, opening up the entire productive field of psychopharmacology. Slowly but surely, we are creating a chemical and physiological map of the brain.

The study of how medications can be used to influence behaviour and neurological function is known as psychopharmacology. In the same way that psychopharmacological studies try to find new medications or lessen drug addiction, psycho pharmacologists use drugs to study how the brain and behaviour interact.

METHODOLOGY

The research methodology used is comparative research method of two disciplines for the multidisciplinary approach in view of NEP. In order to get to a conclusion on two disciplines, comparative research compares the two disciplines. The efforts are essentially to pinpoint and examine similarities in the disciplines. Comparative studies can help build a basis for cooperation and compromise by fostering greater understanding across different disciplines, in our case psychology and chemistry. Both quantitative and qualitative research methodologies can be used in these studies.

OBJECTIVES

1. To demonstrate relevance of psychology in chemistry as two disciplines for a multidisciplinary approach in education in view of the New Education Policy (NEP)
2. To demonstrate how chemistry is present in almost every act of human psychology
3. To emphasize the benefits of multidisciplinary education that is including psychology in the curriculum of B.Sc.(chemistry)

MATERIALS AND METHODS

To understand behaviour that is human psychology, understanding its biological foundations is important. As a result, certain concepts with a very high weightage of chemistry will cross path of students multiple times during their psychology career so multidisciplinary education can bolster and galvanize learners to understand concepts fairly well.

NEUROTRANSMITTERS

Neurotransmitters are chemical substances released by neurons that interact with receptors in other neurons to cause change in the last. The majority of neurons focus on producing one or two neurotransmitters.

Otto Loewi and Henry Dale discovered the first chemical intermediate, which they named acetylcholine.

The presence of another neurotransmitter, norepinephrine, was soon discovered, and within a few decades, neurochemicals already had a growing number of different substances that fulfil this function (more than 30). Some convey exciting messages, while others convey inhibiting messages.

CLASSIFICATION OF NEUROTRANSMITTERS [2]

Monoamines
• Catechol amines: noradrenaline (NA), dopamine (DA)

• Indolamines: serotonin (5HT)

• Acetylcholine (Ach)

Amino acids
• GABA (gamma-aminobutyric acid)

• Glutamate

• Glycine

Peptides
• Endorphins; Enkephalins

• Substance P; Neuropeptide Y

These neurotransmitters influence behaviour via emotions like happiness, sadness, love, cognitive processes, etc.

EMOTIONS

Happiness
Dopamine, a neurotransmitter, is responsible for happiness. This neurotransmitter provides the feelings of reinforcement and compensation that cause us to be in this state. Low dopamine levels are associated with a decrease in our sociability.

It is both a neurotransmitter and a neurohormone. That is, it is directly injected into the synaptic space. It is made in the hypothalamus. 4- (2-aminoethyl) benzene-1, 2-diol is its chemical name.

Sadness
Sadness is managed by a chemical called norepinephrine. When we are in a dangerous situation, norepinephrine keeps us alert. A low norepinephrine level can result in inattention, poor concentration, and depression.

Its name is 4 – [(1R) -2-amino-1-hydroxyethyl] benzene-1, 2-diol.

Love
The real infatuation appears to be triggered by the brain's production of the chemical compound phenyl-ethyl-amine (PEA). The aforementioned chemical is what causes the lover to experience the happiness and bliss that they do. The release of PEA sets off a series of events in the brain. Dopamine is a neurotransmitter that has the function of making us feel good and relaxed and is in charge of the brain's reinforcement mechanisms, and PEA's main action is to promote dopamine secretion.

Cognitive process
The most significant excitatory neurotransmitter in the central nervous system is glutamate. It is regarded as the primary mediator of sensory, motor, cognitive, and emotional information and is particularly crucial for memory and its recovery.

Main Chemicals, Compounds or Components of chemistry responsible for various feelings, emotions and stimuli involved in psychology
Oxytocin ($C_{43}H_{66}N_{12}O_{12}S_2$)

▪ Produced in the pituitary gland

▪ Associated with love, trust, and attachment

Dopamine ($C_8H_{11}NO_2$)

▪ Generated in the hypothalamus

▪ Affects voluntary movement, learning, memory, emotions and responses to environmental factors

Serotonin ($C_{10}H_{12}N_2O$)

▪ Produced in multiple areas of the brain

▪ influences sleep, appetite, perception, body temperature, pain suppression and mood

Vasopressin ($C_{46}H_{65}N_{13}O_{12}S_2$)

▪ Produced by the peripheral nervous system

▪ Involved in attachment, trust and emotions like love

Acetylcholine ($C_7H_{16}NO_2$)

▪ Produced in the central brain

▪ influences cognitive functions, muscle movement, memory and emotion Adrenaline group

• Epinephrine ($C_9H_{13}NO_3$)

• Norepinephrine ($C_8H_{11}NO_3$)

• Cortisol ($C_{21}H_{30}O_5$)

• Generated in hypothalamus and pituitary gland

• Influences the flight or fight response, fear and hostility

DATA ANALYSIS [3]

Chemistry's Role in Influencing the Human Psychology

The chemical interactions in the brain become out of balance when there is too much or too little of any neurotransmitter, which leads to a variety of mental illnesses as OCD, depression, Alzheimer's, and schizophrenia.

Examples

▪ Anxiety, OCD, PTS, and other paranoia/fear-related diseases are brought on by excessive adrenaline, whereas schizophrenia may be linked to excessive dopamine.

▪ Anxiety, as well as depression, can be associated to low levels of oxytocin and dopamine.

▪ Patients with Alzheimer's disease are deficient in acetylcholine.

▪ Any person who struggles with addiction may have one of several different chemical abnormalities. Smaller factors like caffeine or coffee can alter the brain's chemical balance.

▪ Chemical overdoses can result in epilepsy or seizures.

CONCEPTS TAUGHT IN PSYCHOLOGY CRASH COURSE: THE CHEMICAL MIND

▪ Neurons are made up of the same components as other cells, but they are electrochemical. This means they can communicate with one another.

▪ Low amounts of serotonin = depression

▪ Too much dopamine = schizophrenia, O.C.D, impulsive behaviour

▪ Deterioration of acetylcholine = Alzheimer's disease

▪ The Endocrine system generates hormones or chemical messengers that control the attraction, aggression and appetite

▪ Neurotransmitters influence moods and emotions in addition to movement. Unhealthy concentrations of these substances can result in conditions like Parkinson's disease.

▪ Addiction leads to chemical dependency. Withdrawals can be fatal since the brain now believes that the amount of chemicals it has absorbed is necessary for survival.

▪ Seizures are caused by an excess of chemicals in the brain.

▪ the hormones norepinephrine and epinephrine regulate the fight-or-flight response. Individuals who create these substances with anxiety

Thus Multidisciplinary Education Consisting Both The Disciplines Psychology And Chemistry Will Sure Help Any New Learner Or Student To Grasp And Understand Concepts Well.

RESULTS AND DISCUSSION

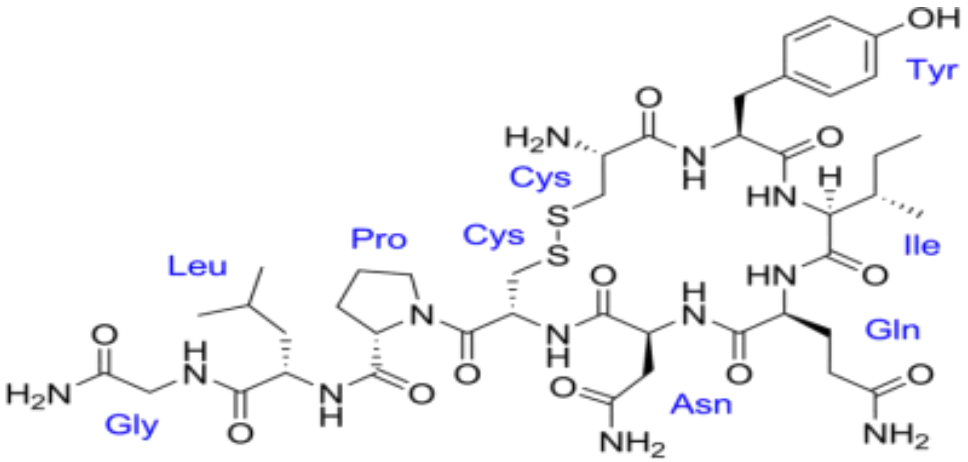
Incorporating psychology into chemistry as a multidisciplinary approach can help students better comprehend, from both a chemical and a psychological perspective, how a particular molecule or chemical messenger affects human psychology.

FOR EXAMPLE: OXYTOCIN [4]

Consider the causes of some of the most significant human emotions, such as love, trust, and attachment. The only item that can be more to blame for these is Oxytocin ($C_{43}H_{66}N_{12}O_{12}S_2$). Henry Dale made the discovery in 1906. In 1952, its molecular composition was uncovered. From the phrase "oxytocic," the word "oxytocin" was created. Quick birth is symbolised by the Greek words oxys and tokos.

The hormone oxytocin acts as a neurotransmitter in the brain. It has been wrongly referred to as the "love hormone" by some since it is linked to positive emotions and moods. But it plays a considerably more complex role in the body than that.

The hormone is really made in the pituitary gland and is primarily a neuropeptide and peptide hormone. The posterior pituitary releases oxytocin, which is typically generated by the para ventricular nucleus of the hypothalamus. It contributes to both sexes' sexual development and social bonding. In reaction to the stretching of the cervix and uterus during delivery and the stimulation of the nipples during breastfeeding, oxytocin is released into the bloodstream as a hormone. This facilitates birth, breastfeeding, and new-born bonding. It is also a crucial drug for helping with labour.



FROM PSYCHOLOGICAL PERSPECTIVE,

A] Oxytocin has been connected to the genesis of autism, with one research proposing a connection between autism and the genetic deletion of the oxytocin receptor gene (OXTR). Studies including Caucasian, Finnish, and Chinese Han families and individuals also support the link between OXTR and autism.

B] Oxytocin plays a crucial part in social behaviour in many species, including humans. In a 2003 study, oxytocin levels in the blood increased after five to 24 minutes of caressing both humans and dogs. This certainly contributes to the emotional connection that develops between people and dogs.

C] Oxytocin frequently triggers the onset of maternal behaviour. After giving birth, female rats administered oxytocin antagonists don't behave as usual mothers would. On the other side, when oxytocin is infused into cerebrospinal fluid, virgin female sheep behave in a way that they would not ordinarily approach alien lambs. It plays a more significant role in the commencement of maternal conduct than in its maintenance; for instance, it is more prevalent in mothers following interactions with strangers' children than with their own.

D] This hormone can strengthen bonding and other favourable attitudes towards those who share similar traits, which classifies them as "in-group" members, while classifying those who don't as "out-group" members. Because society frequently divides people into groups based on race, race can be used as an example of in-group and out-group tendencies (Caucasian, African American, Latino, etc.). In a well-known experiment on race and empathy, participants who received nasal oxytocin responded more strongly to images of in group members displaying distress than to images of out-group members displaying the same emotion.

E] Oxytocin is frequently analysed in terms of how it affects prosocial behaviour, such as its role in promoting interpersonal attachment and faith. As a result, the hormone is frequently called the "love hormone." However, it serves a variety of functions in addition to simply fostering pro social behaviour. There is agreement that oxytocin modifies fear and anxiety; it does not cause these emotions directly. Oxytocin can reportedly reduce fear when supplied nasally, potentially via blocking the amygdala (which is thought to be accountable for fear responses).

F] Since intranasal oxytocin delivery also amplifies envy and Schadenfreude, some researchers contend that oxytocin has a general boosting effect on all social emotions. People who get an intranasal dose of the hormone oxytocin pick up on facial emotions of disgust more quickly than those who do not.

G] It has effects similar to those of antidepressants in animal models of depression, and a lack of it may contribute to the pathophysiology of depression in people. A specific antagonist of the oxytocin receptor fails to prevent the antidepressant-like effects of oxytocin, indicating that the receptor is not the mechanism behind these effects.

H] It has been demonstrated that the hormone affects men and women differently. In general, females who receive oxytocin react to socially significant stimuli more quickly than males do. In addition, females have greater amygdala activity in reaction to frightening stimuli after hormone delivery; males do not exhibit increased amygdala activation.

I] additionally, it has been demonstrated that testosterone directly inhibits oxytocin in mice. It has been proposed that this is important for evolution. As oxytocin is firmly linked to empathy, suppressing it would make tasks like hunting and confronting intruders less mentally challenging.

J] There are important methodological issues with the way oxytocin affects generosity, trust, and faith. It has been demonstrated that intranasal oxytocin increases empathy in healthy males.

The hormone increases trust. A hallmark of confidence in people is the disclosure of

emotional occurrences. Humans who get intranasal oxytocin express more emotional details and stories with greater emotional importance while recalling an unpleasant occurrence.

K] Numerous studies clearly show that romantic attachment and high plasma oxytocin levels are related. For instance, if a couple is apart for a long time, the absence of physical contact may make people feel more anxious. By lowering their anxiety when they are apart, the hormone may help romantically attached couples.

FROM PERSPECTIVE OF CHEMISTRY

The supra optic and Para ventricular nuclei of the hypothalamus contain magnocellular neurosecretory cells that produce oxytocin, which is then released into the blood by the posterior lobe of the pituitary gland. The hormone is also produced by some Para ventricular nucleus neurons that branch out to various regions of the brain and the spinal cord. Cysteine tyrosine-isoleucine-glutamine-asparagine-cysteine-proline-leucine-glycine is the sequence of amino acids found in the nonapeptide oxytocin (CYIQNCPLG). The cysteine residues build the sulphur bridge. The hormone's molecular weight is around 1007 Daltons. From a structural perspective, oxytocin now resembles vasopressin, another nonapeptide with a sulphur bridge whose sequence differs from oxytocin by two amino acids (cysteine, tyrosine, phenylalanine, glutamine, asparagine, cysteine, proline, arginine, and glycine). In the year 1953, Vincent du Vigneaud identified and synthesised oxytocin and vasopressin. The only two well-known hormones secreted by the human posterior pituitary gland that can operate remotely are oxytocin and vasopressin. On the other hand, corticotropin-releasing hormone (CRH) and dynorphin are produced by oxytocin neurons. But they take local action. It is important to note that vasopressin-producing magnocellular neurons and oxytocin-producing magnocellular neurons share many characteristics and are located close to one another.

Just like oxytocin, every single chemical messenger or hormone or brain chemical reaction can be explained from perspectives of both psychology and chemistry.

CONCLUSION

The study of the human mind and its control of emotions and actions is known as psychology. There are seven different psychological perspectives, which are as follows: Biological, evolutionary, learning, sociocultural, psychoanalytic, cognitive, and humanistic perspectives**.**

Everything Psychological Can Be Related to A **Chemical Reaction in the Brain** in Some Way or the Other.

Chemistry has a greater impact on psychology than physics**.**

Along with the chemistry curriculum, an introductory psychology course as a multidisciplinary approach will help students get a head start, and they will have a variety of career options in the future. Aside from the career opportunities generated by the chemistry course, they will be able to obtain jobs such as psychiatrist, therapist, psychology mentor, and teacher because chemistry and psychology are both relatable and, when combined, can be very easy to grasp. When aided by chemistry, a monotonous humanities subject like psychology can become very interesting, and interesting things are usually easy to understand.

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ROLE OF ACTIVITIES IN MULTIDISCIPLINARY EDUCATION

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ABSTRACT
Multidisciplinary approach is involving all activities to form on activities is known as the same. Through personal experience, practical knowledge can often lead to a deeper understanding of a concept. The Term "Multidisciplinary Activities" Refers To Activities That Combine Or Involve Members Of Various Academic Or Professional Specialties In Relation To A Certain Subject Or Issue. The Goal Of A Multidisciplinary Activity Is To Reframe Problems Outside Of Their Typical Parameters, Made By Multiple Methodologies From Various Academic Fields, And To Arrive At Solutions Based On A New Understanding Of Complex Situations. A monodisciplinary approach is unable to fully address the challenges that excluded students experience because proficiency across numerous areas is required. This paper focuses on the activities conducted in multidisciplinary education, like workshops, practical activities, etc. Researcher Concluded the Role of Activities Played a Vital Role in Multidisciplinary Education.

Keywords: Learning Outcome, Teaching Methods, Multidisciplinary Education,

1. INTRODUCTION
A Multidisciplinary Education Studies The Same Subject From The Perspectives Of Various Academic Fields. The Terms Multidisciplinary Are In Large Scale Sometimes Used To Refer To The Intention To Cross Disciplinary Boundaries. A student who adopts a multidisciplinary approach learns a wide range of abilities that are useful in a variety of work settings, including problem-solving, critical thinking, time management, self-management, and other important skill. The teams combine the knowledge and abilities of many professions to collectively assess, plan, and manage care variety of activities in multidisciplinary education. Multidisciplinary education improves research-related skills**,** Communication Skills, Extra Curriculum Activities etc.

2. REVIEW OF LITERATURE

- **Sivakumar Palaniyandi**

Because it requires knowledge from multiple subjects, a monodisciplinary approach cannot fully address the difficulties that marginalised students face. This Essay Gives A Quick Overview Of The Multidisciplinary Method Used To Deliver High-Quality Instruction To Underprivileged Children.

- **Alexopoulou, E., & Driver, Washington, Dc: U.S**

The process of teaching and learning. Thus, a multidisciplinary approach in teacher education programmes broadens the scope and opportunities available to stakeholders, particularly teachers and students. Here, We Will Discuss Various Aspects of This Approach In Education, Particularly Teacher Education, As Well As Its Potential Limitations And Prospects.

- **Engelhart M. D. Taxonomy of Educational Objectives: The Classification Of Educational Goals. New York, Ny: David Mckay NEP 2020**

envisions a multidisciplinary education that aims to develop all the capacities of human beings—intellectual, social, cultural, physical, emotional, and And an Education That Aims To Develop All Round Capacities Of Human Beings, That Is Intellectual, Social, Cultural, Physical, Emotional And Moral In An Integrated Manner.NEP Also envisions a large multidisciplinary higher education institution in every district. According to UGC, such

education will help to develop well-rounded individuals that possess critical 21st century capacities in various fields, including arts, science, humanities, languages, social sciences, professional, technical, and vocational fields. Social engagement, communication, discussion, debate, and rigorous specialisation will also fall under holistic education. In the long run, all undergraduate programmes will take this approach.

- **GREEN AND MC INTOSH (2002)**

"Is There A Genuine Under-Utilization Of Skill Amongst The Overqualified?"

Research found that in 2001 more than 50% people were less qualified. In 2001 most of the people were overqualified. They also discovered that education job mismatches do not correlate well with skill.

3. OBJECTIVE OF RESEARCH

- To Study the Preferences of Student Towards the Activities In Multidisciplinary Education.
- To Study the Advantages of Learning Practical Subjects.
- To Study the Awareness About the Multidisciplinary Among the Students.
- To Study the Importance of Multidisciplinary Education in Teaching.
- To Study the Learning Outcomes of Multidisciplinary Education.

4. RESEARCH METHODOLOGY

The fact findings approach is used in this research. The Gathering Data Is The Foundation Of The Research Investigation.

4.1 SOURCES OF DATA

4.2 Primary Data

Data were collected through questionnaire. Randomly questionnaire sent to 50 graduate level students

4.3 Secondary Data

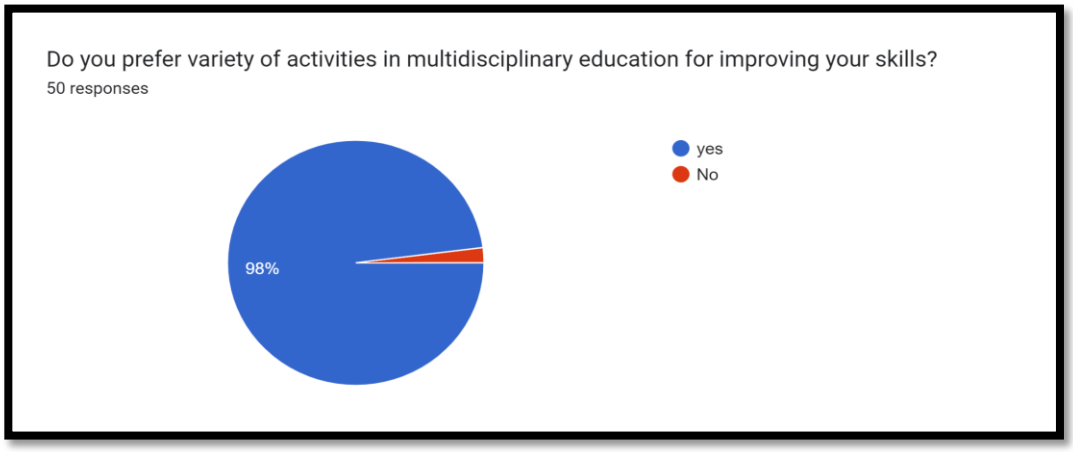
Data Was Collected by Source to Take Information**.**

5. LIMITATIONS OF STUDY

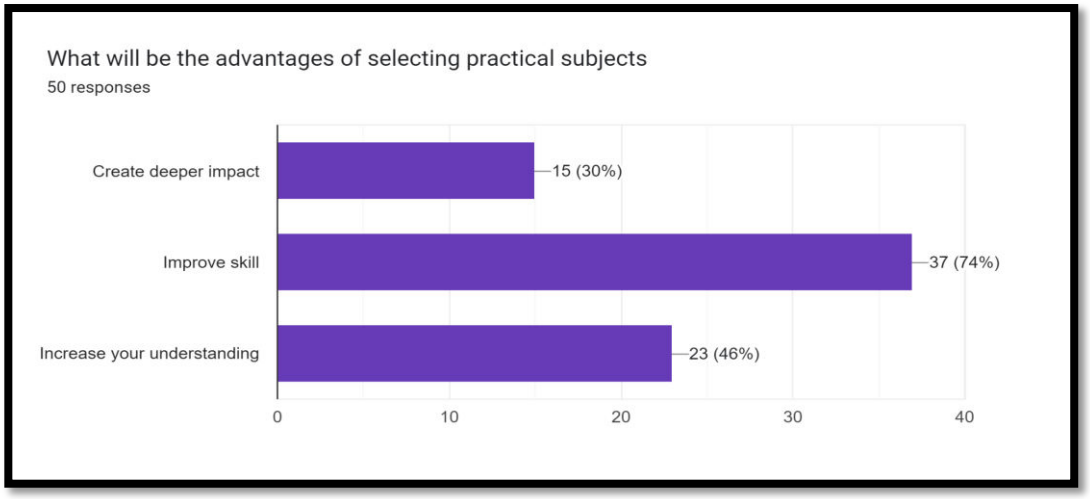
- The scope of study is only limited with the selected samples only.
- Lack of reliable data limited the scope of our analysis
- Limited access to the data posed a barrier in finding a trend and meaningful relationship.
- Time constraints.

6. DATA ANALYSIS AND INTERPRETATION

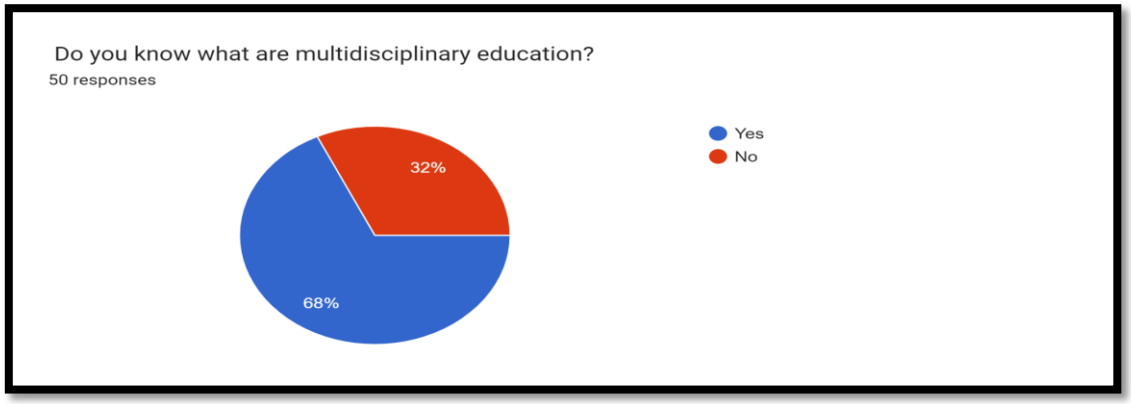
Data Collected from 50 students through the questionnaire. The analysis of responses collected from the student as are as follows.



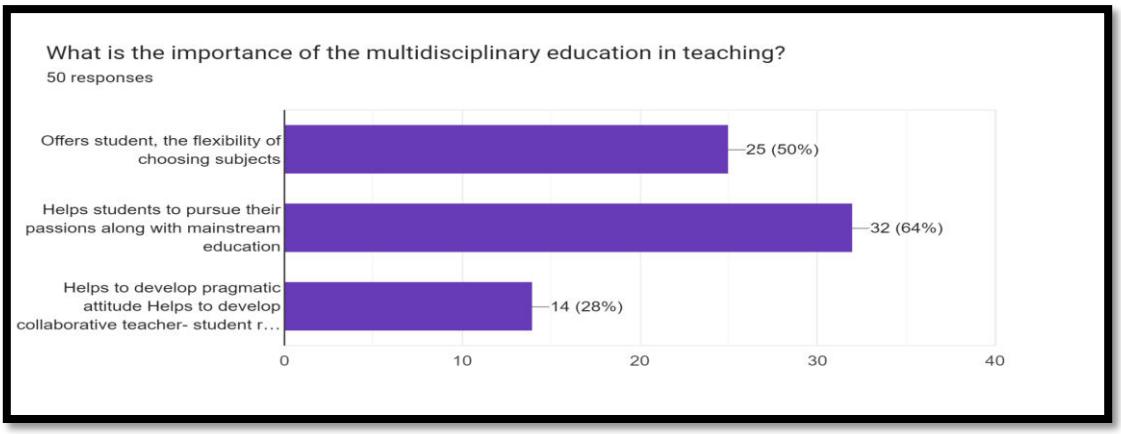
This pie chart shows how all the students have most interest in learning various activities in educations so as to improve their skills and learn more & there are only few students which are not interested in multiple activities.



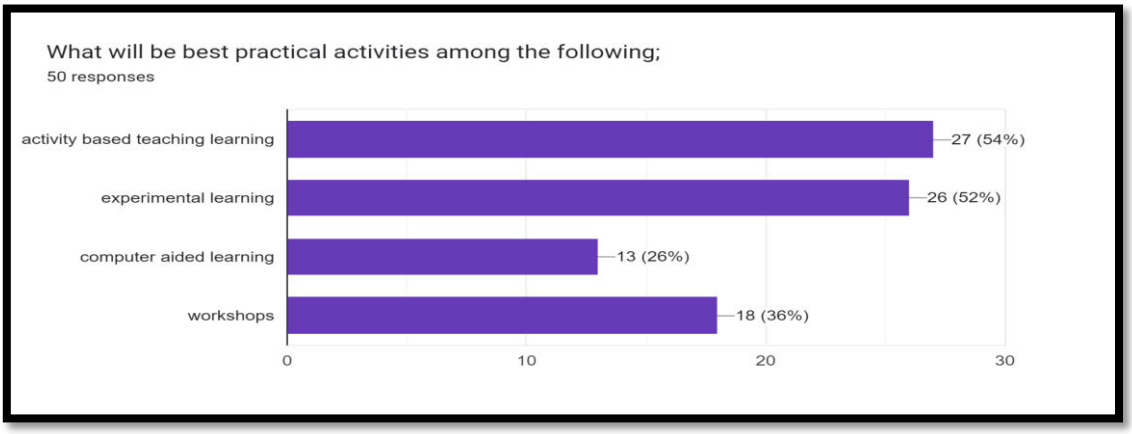
This bar chart shows that the majority of students are interested in improving their skills through practical knowledge, and the majority of students (46%) are interested in increasing their understanding of their knowledge to develop it later, while the minority of students (30%) are interested in creating a deeper impact of it for future use.



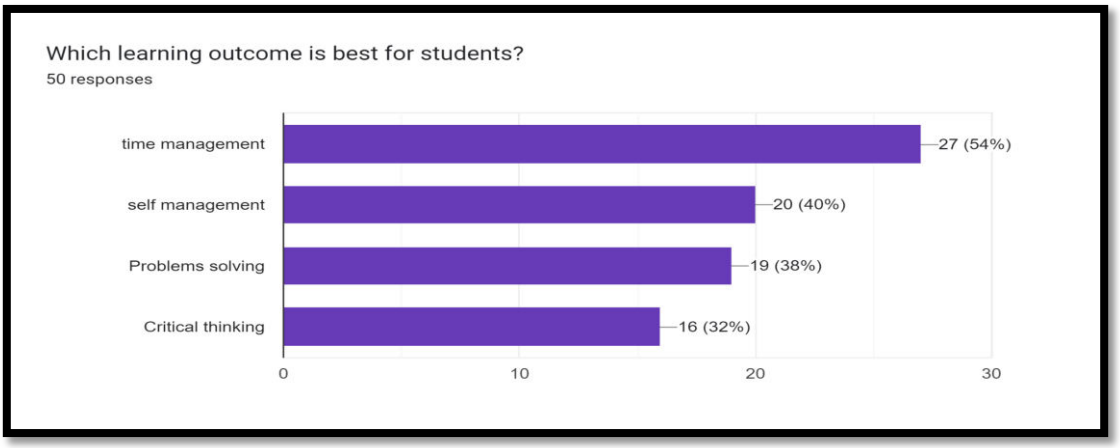
This pie chart shows that 68% of students are aware of multidisciplinary education, while 32% are not, indicating the importance of informing them about it.



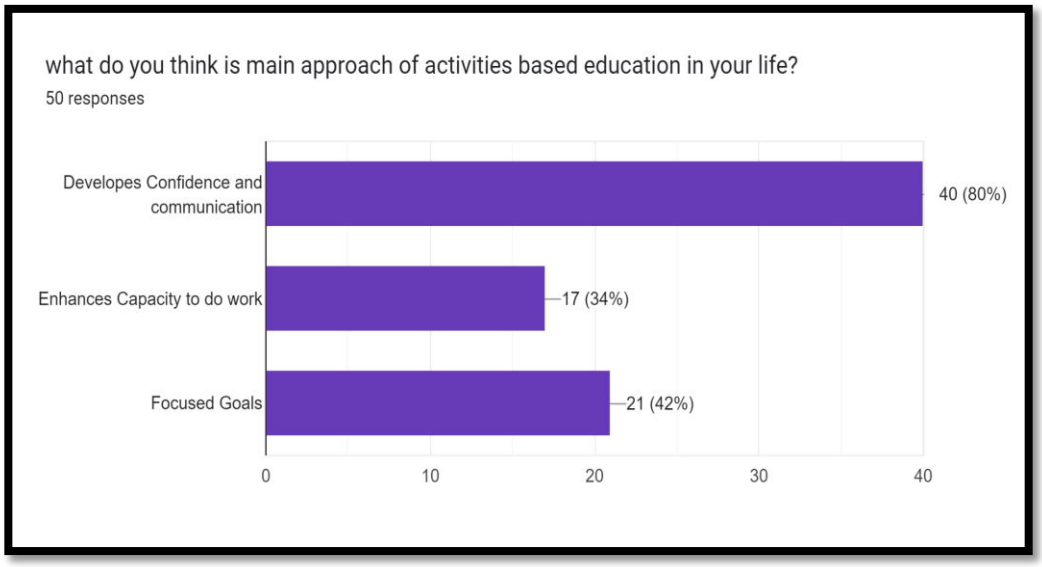
This bar chart shows that 64% of students want to do multiple activities while receiving mainstream education, 50% want to choose their own subject and learn it, and 28% want to develop a procreative attitude towards education.



This bar chart shows that how students are more interested in activity based teaching learning and experimental learning rather that some are interested in computer aided learning and workshops.



This bar chart shows that the best learning outcome for students is time management, as everyone is most interested in managing their time in a busy life, while others are interested in self-management, problem solving, and critical thinking.



This bar chart shows that 80% of people are interested in building up confidence and communication in their life and 42% persons wants to enhance their capacity to do work as to do progress and built up more work system and 42% people are interested in focusing goals for achieving their aims in life.

7. FINDINGS OF THE STUDY

a) As almost all students have selected activities in multidisciplinary education so as to improve their skills, very few are not interested in performing various activities in their education.

b) Almost all are interested in improving skills rather than creating deeper impacts and understandings.

c) Most people know about multidisciplinary education, which is good for education purposes, but among them, 34% don't know about multidisciplinary education.

d) The importance of multidisciplinary education in teaching helps them to pursue their passion along with mainstream education, and half of the students are interested in having flexibility in choosing subjects and a minimum are interested in developing a procreative attitude.

e) As per the survey, the best practical activities are activity-based learning and experimental learning, and the least interested are computer-aided and workshop learning.

f) The best learning outcomes are time management and self-management, and the minimum are problem solving and critical thinking.

g) In your life, the main approach to activity-based education is to almost believe that confidence and communication are the most important things, rather than enhancing capacity and focusing on goals.

8. CONCLUSION

Role of activities in Multidisciplinary Education is very important because for improving their skill, Multidisciplinary should offer variety of activities to the students. M.E. provides versatile classroom opportunities to the students, and they also enjoyed these activities. Participative learning is preferred by the students. It will develop confidence and communication skills. It

will help develop employability skills. An activity based education system will help students learn time management and self-management for a better personal and professional life. Multidisciplinary education system will create interest in study and developed the enhance capacity to do work.

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c) https://therealschool.in/blog/multi-disciplinary-learning-approach/#:~:text= Multi discip lin ary%20education%20is%20a%20separate,can%20take%20a%20humanities%20course **etc.**

MULTIDISCIPLINARY ECONOMIC DIMENSIONS IN EDUCATION

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ABSTRACT
During the period known as the economic and global financial crisis, economic forecasting came under heavy criticism for its inability to predict the crisis, to the point where said crisis was deemed not just a crisis of the global economy, but of economic thinking as well, in particular mainstream, neoclassical economics. The critique of economics has focused primarily on the following aspects: its unrealistic assumptions regarding markets and human behaviours; its poor track record in predicting phenomena such as the crisis itself; its over-reliance on models that bear little resemblance to real world conditions, and also that it has a very narrow focus, reluctant to integrate useful inputs from other fields, which is perceived as leading to stagnation and hindering progress in the field. Following the emergency in the realm of economics, a number of scholarly discussions took place, and various heterodox schools of economic thought received renew attention, while universities have begun to expand the range of disciplines included in their business programmes, moving towards a multidisciplinary strategy. The present paper aims to examine the concept of multidisciplinary with a focus on its role in business education today and to assess the extent to which its spread and prevalence can usher in a new paradigm in economic thinking.

Keywords: interdisciplinary, multidisciplinary, Economic, education

INTRODUCTION
The global financial crisis of 2007-2008 began in the United States and spread throughout the global economy, giving way to the economic decline known as the Great Recession, arguably the most severe recession since the Great Depression, according to the Encyclopaedia Britannica. Mathematician David Orrell (2017) compares the confidence that economics enjoyed prior to the crisis and the criticism it received in its aftermath, stressing that the models used had proven highly unrealistic and failed to capture essential aspects of the economy, an opinion that is also shared by economist Paul Romer (2016). This situation amplifies with the emergence of the knowledge economy and understanding the concepts of knowledge and knowledge dynamics. Against the backdrop of these criticisms, the academic community saw renewed interests towards heterodox view of economics, such as Austrian economics and behavioural economics, with Richard Thaler earning the Nobel Memorial Prize in Economic Sciences for his contributions to the latter field. Another shift, on which the present paper focuses, takes place at the level of economics education. Pressure on universities to reform their curricula began to increase as students clamoured for including alternative views in the programmes. One such movement was a student movement at the University of Manchester that coalesced into the "Post-Crash Economics Society", which promotes reform of economic curricula in universities in the hopes of bringing about progress in the field by encouraging pluralism in economic thinking. It was followed in 2014 by the global student movement for pluralist economics, a coalition of student groups that similarly endorse pluralism in economics. The idea of pluralism in economics – that is, a better representation of several schools of economic thought in academia – is not new, however, as its origins can be traced back to the 1960s. A related movement is the post-autistic economics movement, originating in France, with the term "autistic" being employed with the older meaning in French of "excessive subjectivity". The movement was born in the year 2000, its tenets being exposed in an open letter published in Le Monde. The pattern that we need to discern here, therefore, is that after the global financial crisis of 2008, increasing criticism against the mainstream paradigm in

economics has been linked to an increase pressure upon the academia to produce change in how economics is currently taught. While the previous paragraphs have dealt with pluralism, the focus of the present paper is on a wider trend namely that towards multi-disciplinarity.

Methodology, structure and hypotheses

The hypotheses that we seek to analyse are:

I) That multidisciplinary is an increasing trend in education and that economics is not an exception to it, and

II) That multidisciplinary should gradually determine a shift in the research output in economics as new avenues become available.

The paper is structured into the following main sections:

a) A distinction between multi-disciplinarity and the related concepts of trans-disciplinarity and interdisciplinarity for greater clarity;

b) An overview of the current prevalence of multi-disciplinarity in education in general and in economics in particular;

c) An examination of the extent to which a multidisciplinary approach can effect a change in the dominant paradigm of economic thought; 4) Conclusions based on the previous points.

The methodology employed in this paper is the following:

1) A review of the existing literature on multi-2017disciplinarity and its conceptual identity among other forms of collaboration between various fields of knowledge, and

2) Inductive and deductive methods to pinpoint the underlying patterns and discern its potential consequences for the development of economics.

Multidisciplinary Economic in Education

Plsek and Greenhalgh (2001) maintain that in healthcare, problems and the systems that underlie them are interdependent, with less rigid boundaries, characterised by a relatively high level of dynamism and fluidity, unlike mechanical systems wherein the role and importance of each component is fixed and well defined. The growth of the body of knowledge in healthcare has led to a deeper understanding of the factors that may lead to a given conditions; for instance, an epidemic would need to be analysed from multiple perspectives: genetic factors, the environment and the lifestyle of the affected persons. The crux of their argument rests on the notion that health care needs to be understood as a complex adaptive system i.e., “a collection of individual agents with freedom to act in ways that are not always totally predictable, and whose actions are interconnected so that one agent's actions change the context for other agents”, a system that can also be described through the adaptive capabilities of its agents and their emergent behaviours. Financial markets are given as an example of such a complex adaptive system. generations of researchers tend to take a more positive view of multi-disciplinarity. Nevertheless, newer Watanabe (2003) writes that there is a trend towards diversifying one’s training by adding more layers to it from other discipline, invoking that there are several advantages associated with multidisciplinary training, such as: greater professional prospects; higher quality research; enriching their core training with novel perspectives; better research methodologies. Hall et al. (2017). Looked on how students evaluated their involvement in a multidisciplinary geography programme, and the findings suggested a sitive opinion of this format, citing among others increased learning opportunities, interaction with peers from various disciplines and better job market openings, with a minority of students perceiving challenges, mostly associated with “specialist knowledge and disciplinary pedagogies, social issues within the classroom and class organization and some reservations regarding

groupwork". In short, we can discern a pattern from the works cited: although in the early 2000s, the trend towards collaboration between multiple disciplines had yet to distinguish itself in the academic community, over the course of the following decade it continued to develop; nevertheless, the pace and extend to which it pervaded research and education is uneven across disciplines, with some using this strategy earlier in the aim of quickening progress, while others have maintained a set pace of adherence to a classical style of learning. While interdisciplinary research collaboration can result in significant professional and academic advances, there are still a number of difficulties. that vary in nature from cognitive biases and reluctance to consider viewpoints from beyond one's own specialisation, to administrative and financial issues related to funding research and managing grants. The following part will examine what multi-disciplinarity implies for economics in light of how the public and academic communities have responded to the recent global financial crisis. At Several authors have argued in favour of a multi- and interdisciplinary approach in the study and practice of economics. For instance, Jonathan Leape (2012) makes the point that the manner in which economics is taught is insufficient, with a narrow focus, and do not grant inductive methods enough attention, preferring instead deductive reasoning flowing from theoretical assumptions while downplaying the importance of evidence and observations. Leape further makes the observation that the tendencies in economics education programmes had not shifted significantly at the time he wrote his article, despite the need for greater breadth in their education. Leape thus advocates for a wider variety in economics education to include views from other disciplines (citing among others history and anthropology) in order to gain both a deeper understanding of the phenomena that they study as well as a greater awareness of the limitations of the theoretical models used. Soumitra Sharma (2015) offers a view along the same lines, namely that multidisciplinarity is imperative for studying the theory and practice of economics. Sharma also laments what he perceives as a stagnation of the teaching of economics; he believes that "economics must thus struggle to avoid becoming apologetics for any school of economic thought" and that economists must learn to expand their expertise towards a wider array of disciplines aside from economics, such as mathematics, philosophy, history and socio-psychology. Multi-disciplinarity, in his eyes, is a solution to many ills, by cultivating the potential for innovation and progress. It's important to remember that these viewpoints were only expressed just before the start of the world financial crisis. In recent years, we have seen, a trend in the direction of adding a more diversity of perspective to economics, though with varying measures of success. Last but not least, another author who has opted for a different perspective on economic issues is MIT professor Andrew Lo (2017), who has applied insights from evolutionary biology in order to describe the economy as an adaptive system and to shed more light on the observed inconsistencies between human behavioural and theoretical predictions. In his view, economic tenets such as the efficient market hypothesis are incomplete, not altogether inaccurate, as cited by Brian Eastwood (2017). As far as academic programmes are Numerous prestigious universities in Europe have started to offer economics programmes with a focus on transdisciplinary instruction. The London School of Economics offers one such programme called the lse100 course that is focused on addressing diverse social challenges from the perspectives of numerous different disciplines to strengthen social scientific reasoning and improve critical research. To summarise this section, it seems that the subject of economics is moving towards an interdisciplinary and multidisciplinary perspective. The success and prevalence of this pattern depends largely upon the nature of the problems being studied and the goals of the research project. Apart from that, there is also the issue of overcoming the challenges that have been noted in other disciplines that have attempted the Multidisciplinary approach, namely reluctance to new trends, frictions when interacting with other disciplines, a rigidity in maintaining the boundaries between the disciplines. Last but not least, there is also the administrative issue of obtaining grants to fund multidisciplinary research in economics, which may be stimulated by the successes of research project. Greater diversity among faculty,

complementary curricula and encouraging the efforts and insights of the younger generations of researchers are all factors that can conduce in the long term towards cementing multi- and interdisciplinarity as a core component of future economic research.

CONCLUSIONS

The objective of the paper was to analyse the concept of multi-disciplinarity, settle upon a working definition of the term, analyse its potential impact on economics and discuss on whether or not it can produce a paradigmatic shift in economic thought. The paper provided a background of why a reassessment of economics is relevant in light of the criticisms that emerged against the backdrop of the last global financial crisis, where neoclassical economics and its predictive capabilities were subjected to harsh evaluations, and it was established that as the current paradigm has since been called into question, we may look into the prospects for a change in this sense.The paper continued with the definition of multidisciplinarity, distinguishing it from other forms of cross-disciplinary collaborations such as interdisciplinarity and transdisciplinarity, settling upon a definition of multidisciplinarity as the integration of ideas, concepts, analytical tools and methodologies from various fields into the scope of one field, in order to enrich theory and gain a better, multilayered understanding of the phenomena being researched. Furthermore, we looked into multidisciplinarity in research and education in general, the picture thus created showing us that the trend is heterogeneously developed depending on each field, though in more recent years, more and more authors have signalled that, as our understanding in one field grows, so does the necessity of interacting with other disciplines to accelerate progress, but it does not come without several administrative and cognitive challenges, most noteworthy being the reluctance to interact with or acknowledge the validity of other points of view, the risk of the trend being discouraged should research projects not prove fruitful, and obtaining funds and grants. With regards to economics, although the need for multidisciplinarity was acknowledged by John Maynard Keynes in the former half of the twentieth century, the trend was forgotten in favour of what is known as neoclassical economics which has dominated mainstream economics and which, as noted, was attacked for having failed to correctly interpret the signs that led up to the crisis after having enjoyed a long spell of popularity. Our research has revealed that in economics, incipient signs of a trend towards multidisciplinarity can be witnessed in two main forms: 1) a pattern of viewing economic problems using insights from other fields, with a preference towards behavioural economics, having experienced renewed popularity as an alternative to neoclassical economics, and 2) more diversified economic curricula created by universities with the goal of providing students with a multi- and interdisciplinary education and the chance to be exposed to other fields to complement their training as economists. Finally, in light of the arguments presented in the paper, it has been stated that multidisciplinarity has the potential to usher in a new paradigm of economic thought, with several caveats: it is dependent upon the successes of multidisciplinary research projects to confirm its viability, and the continuity of the trend over generations. Furthermore, the state of affairs today suggests increased cooperation between economics and other social disciplines. Due to the nature of this pattern, the final location it will lead to is unclear.

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ELECTRONIC LEARNING AND DEVELOPMENT IN MUITIDISIPLINARY EDUCATION

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ABSTRACT
A multidisciplinary approach is a technique for integrating disciplines into the curriculum that emphasizes the various viewpoints that different fields of study can contribute to demonstrate a topic, subject, or issue. Several disciplines are employed to study the same subject in a multidisciplinary programmed. In order to extend the breadth of higher education through a variety of disciplines of study and to give students freedom and autonomy in choosing their course of study, the New Educational Policy 2020 emphasizes on a multidisciplinary approach. The key components of the NEP 2020 programme, highlighting significant parts of it, and contrasting it with the present framework for national educational policy. Objective of this paper is Growth after NEP 2020, Development of an online qualitative testing framework, Development of a standard or framework for assessing the caliber of e-learning material. The methodology includes a conceptual talk outlining the key components of the national educational policy framework, highlighting significant elements of the NEP 2020 programme, and contrasting them with the present education policy. The National Education Policy 2020 represents a sea change in Indian education. Despite some novel changes to the educational system, this approach has a connection to global education.

Keywords: Development, electronic learning, virtual laboratory, caliber

INTRODUCTION
This theoretical framework cannot be fully expressed in any one discipline's account of development over the lifespan. Because of this, lifespan experts clearly state that it takes a variety of fields to fully understand development. Researchers in the fields of psychology, sociology, neuroscience, anthropology, education, economics, history, medicine, and others may be interested in and actively participating in studies of the normative age-graded, normative history-graded, and nonnormative influences that influence development. A new and improved understanding of development across the lifespan may be formed as a result of the important concepts that integrate knowledge that can be contributed by many disciplines[1]. A multidisciplinary curriculum involves looking at the same subject from the perspectives of other academic fields. The term "cross-disciplinary" also refers to the intention to bridge boundaries between disciplines. A multidisciplinary approach is a technique for curriculum integration that emphasizes the various viewpoints that experts from various fields can contribute to demonstrate a theme, subject, or problem. An interdisciplinary curriculum uses various academic fields to study the same subject. A multidisciplinary approach to education is a method of instruction that places a strong emphasis on several viewpoints and learning disciplines to help convey a theme, concept, or any issue. It is the one in which the same subject is learnt from several perspectives drawn from a variety of disciplines. The students benefit from gaining knowledge and viewpoints in various ways. A special educational system that encourages a multidisciplinary approach to assist students follow their passion is essential in today's hypercompetitive world of endless learning. Although institutions are urged to pay attention to the National Education Policy 2020 (NEP 2020), stakeholders are still undecided regarding its benefits and drawbacks [2]. The study of life span psychology is now an established field of study (Balts et al., 1999), and it is widely acknowledged that development continues throughout one's entire life and is still unfinished at the time of entering adulthood. Understanding the fundamental principles of life span psychology is crucial for comprehending

the importance of lifelong learning [3]. The Indian government has announced the New Education Policy 2020 in an effort to maximize each child's abilities and potential. In the context of virtual and international education, policymakers have struck a balance between the historical legacy of Indian education and the potential career paths for students. The decision-makers "provide inclusive and equitable quality education and encourage chances for all to learn throughout their lives." The goal of the strategy is to ensure that children can live independently after completing the bare minimum of schooling [4]. It takes more than merely uploading the face-to-face printed, materials to create an online course from a traditional face-to-face capacity strengthening course. The learning experience cannot be transferred straight from one format to another, so it is necessary to modify the learning tools and materials from the in-person course in order to improve learning outcomes in an online setting (Abel, 2005). Yet, in order to keep the advantages for the students, it is necessary to convert some significant elements of many face-to-face courses as closely as possible to their original form. Especially when there are no face-to-face meetings, active learning is a crucial component of online courses since it engages the learner beyond simply reading the course contents. It helps to increase the analytical and evaluative nature of learning processes and makes learning more practical, interactive, and social. Course projects, for instance, are a crucial practice that should be included in both traditional classroom instruction and online learning (Tobin, 2004). With course management system tools like discussion boards, many exercises and activities that are traditionally provided in a group environment during a traditional face-to-face course can be rebuilt as a group online activity [5]. The way that education is delivered in institutions of higher and continuing education has been revolutionized by e-learning. The use of computer-mediated communication (CMC), which can enhance communication over face-to-face mode, is a significant component of this. Less information is distorted while using CMC, and learners report feeling more satisfied and at ease. The method of communication and the format in which information is disseminated have an impact on the quality of the relationship between instructors and pupils. CMC and the internet have significant promise for the students in many disciplines of expertise, especially when education is centered on precision and practice. There has been a paradigm shift in how educational services are delivered. This recognizes that people seek education information differently depending on their age, income, and background, which may lead to a preference for online or offline modes of seeing information and a digital gap. Most online students are digital natives who are often younger, more eager to learn, use the internet for other things, and spend more time online each week. Education providers typically continue to be a source of knowledge and encouragement for behavior change. The creation and provision of the information that students require has gotten more difficult as a result of the rise in the number of students using websites. Culture, language, diversity, economics, and time constraints must all be taken into consideration [6].

METHODOLOGY

The methodology includes a conceptual discussion outlining the main points of the framework for national educational policy, highlighting major portions of the NEP 2020 programme, and contrasting it with the currently in place education policy. Employing focus group discussions to identify the innovations made. The predictive analysis technique is used to analyse the policy's ramifications. Many recommendations are made in light of the focus group analysis.

OBJECTIVES:

a. To study the Growth after NEP 2020

b. To study the Development of an online qualitative testing framework

c. To study Development of a standard or framework for assessing the caliber of e-learning material

ANALYSIS

a) Growth after NEP 2020

Many reforms to India's education policy are implemented by the NEP 2020. It seeks to swiftly raise public spending on education from about 3% of the GDP to 6%.

School Education

● Emphasis on Foundational Literacy and Numeracy: The policy places the highest importance on ensuring that all pupils are proficient in Foundational Literacy and Numeracy by Grade 3. According to the policy, achieving universal basic reading and numeracy in primary school by 2025 would be the top priority of the educational system. Only once our kids have successfully completed this most fundamental learning need (i.e., reading, writing, and math at the foundational level) will the remaining provisions of this Policy be applicable to them. The Ministry of Education will set up a National Mission on Foundational Literacy and Numeracy as a top priority to achieve this goal. In order to achieve universal foundational reading and numeracy in all primary schools, the State/UT governments would immediately draught an implementation plan, specifying stage-by-stage targets and goals to be attained by 2025, and closely following and monitoring progress of the same. In order to do this, the National Initiative for Proficiency in Reading with Understanding and Numeracy, or NIPUN Bharat Mission, was introduced on July 5, 2021.[7]

- The "5+3+3+4" model will take the place of the "10 + 2" structure [8]. This will be done in the following way:
- Foundational Stage: This is separated into classes 1 and 2 in primary school, followed by 3 years of preschool or anganwadi. This will apply to kids between the ages of 3 and 8. Activity-based learning will be the main emphasis of the investigations.
- Courses 3 to 5 in the preparatory stage will be for students between the ages of 8 and 10. Subjects including speaking, reading, writing, physical education, languages, art, science, and mathematics will all be gradually introduced.
- Courses 6 to 8 in the middle stage are for kids between the ages of 11 and 13. The more abstract ideas in math, science, social science, the arts, and humanities will be introduced to the students.
- Secondary Stage: Classes 9 through 12, which range in age from 14 to 18. Classes 9 and 10 cover the first phase, and classes 11 and 12 cover the second. This time, it is separated into two parts. The goal of these four years of education is to instill multidisciplinary study, along with depth and critical thinking. There will be a variety of subject choices.
- School pupils will only take three tests in classes 2, 5, and 8 rather than exams every semester.
- This policy intends to lighten students' academic loads and enable them to become more "inter-disciplinary" and "multilingual." One of the examples offered was, "Students will be free to combine chemistry and physics to study baking or pursue fashion studies." Report cards will include information about the student's abilities and will be "holistic."
- Coding will be taught beginning in class six, and practical learning **Higher Education**
- It suggests a 4-year undergraduate programme leading to a multidisciplinary bachelor's degree with a variety of exit alternatives. They will be executed in the following ways and encompass professional and vocational fields [9]

- After completing one year of studies, a certificate
- After finishing two years of studies, a diploma
- After completing a three-year programme, earning a bachelor's degree
- A four-year Bachelor's degree in multiple disciplines (the preferred option)
- To oversee higher education, India will establish the Higher Education Commission of India (HECI). Gross enrollment ratio growth will be the council's main objective.
- The National Higher Education Regulatory Council (NHERC), which is part of the HECI, would have four verticals to govern higher education, including teacher preparation but not medical or legal education.[10]
- "Meta-accrediting body" National Accreditation Council (NAC).[10]
- The policy suggests that institutions of higher learning, like as the IITs, make adjustments in relation to the diversity of learning. [11]
- The proposal is to internationalize Indian education.
- Indian universities can now establish campuses abroad. [12]
- The costs for both public and private universities will be set.[13] **EdTech**

NEP 2020 gives EdTech entrepreneurs and enterprises the direction and encouragement they need to create learning management systems, ERP software, assessment platforms, online laboratories, etc. for colleges and universities. An independent organization called the National Educational Technology Forum (NETF) was established to promote discussion of how to use technology to enhance learning. [14] According to NEP, NITI Aayog teamed up with Biju's in September 2021 to offer engineering hopefuls from 112 districts free access to its tech-driven learning programmes. [15]

Other Changes

Several new educational institutions, organizations, and ideas have been given legal authorization to organize as part of NEP 2020. They consist of:[16]

- The National Education Commission is led by India's Prime Minister [17].
- Academic Bank of Credit is a digital repository for credits obtained for the purpose of using them for future education [18].
- To advance innovation and research, the National Research Foundation [19]
- Special Education Zones, which concentrate on educating underrepresented groups in underdeveloped areas [20],
- Gender Inclusion Fund, which supports the country's efforts to educate female and transgender children [21].

B) Development of an Online Qualitative Testing Framework

Analytical framework: A set of codes organized into categories that have been cooperatively created by researchers involved in analysis and can be used to manage and organize the data constitutes an analytical framework. Instead of using the complete original narratives provided by participants, the framework produces a new structure for the data that is useful to summaries or simplify the data in a way that can support addressing the research questions.

Analytical memo: An analytical memo is a written analysis of a certain idea, theme, or issue that reflects on newly discovered problems in the data and encapsulates the analytical process.

Categories: Codes are organized into clusters during the analysis process around ideas or concepts that are comparable and connected. In the analytical framework, categories and codes are typically placed in a tree diagram layout. Creating categories is a means to begin the process of data abstraction even though they are directly and tightly tied to the raw data (i.e., towards the general rather than the specific or anecdotal).

Themes: The results of the analysis of the entire dataset are interpretive notions or hypotheses that characterize or explain various parts of the data. By examining data categories and comparing them between and within cases, themes are generated and defined. Typically, each subject or sub-theme would have a number of categories that fell under it.

C) Development of a Standard or Framework for Assessing the Caliber of E-Learning Material

These studies contrast the effectiveness of e-learning with comparable outcomes on other widely used learning platforms (Wang, Li, Ding et al, 2010; Wang, Li, Liu et al, 2010; Skalka et al, 2012). The results of these brief surveys, which frequently employ correlational methods, cannot be utilized to categories the content of the intended subject. Such evaluation has the potential to advance, but assessment methods are constrained by their substantial reliance on inconsistent performance across numerous learning platforms [22]. In essence, the phrase "performance evaluation" was created for student assessment and was first used by Scrivens (2006). Student performance is a crucial indicator of how effective an e-learning platform is, but the issue is that it is not the only component in determining how effective an e-learning technique is; other factors are also very essential. In the context of e-learning, performance evaluation is typically done using online tools to assess knowledge-based learner performance and is unable to identify intrinsic differences that are hurting a learner's performance. In a nutshell, this assessment can be understood as a knowledge-intensive assessment [22]. A framework for e-Learning in school was suggested. The foundation for an e-Learning teacher development course was delivered with the use of a method that combined hierarchical visualization of analysis results with computer-aided analysis of learners' reflection texts. With the use of the e-Learning framework, teachers' pre-post course reflections demonstrated a progress in their understanding of e-Learning, and students were more aware of the significance of pedagogy in e-Learning [23].

Table 1 provides a summary of the main terms for the technology dimension of e-learning, including the usage of e-resources, digital communication, and digital data collection. According to their modes of use in school education, the categorization of the keywords connected to the use of e-resources in education is divided into four groups. For easy access and usage throughout a significant curriculum delivery period, school curriculum e-resources are organized into a category called "e-textbooks." Another category of online resources is those that are relevant to the school curriculum; they are often topic-based online materials that were created with this application in mind. In general, open courseware is for self-paced or self-regulated learning and may or may not be related to the academic programmed. E-resources in general that are available for instructors and students to use as resources in learning and teaching activities but aren't specifically made for school usage fall under the fourth category. Digital means of communication make up the second component. It is currently divided into four categories. One category is the use of digital communication technologies in schools to engage students and improve classroom interactions [23].

CONCLUSION:

A turning point in Indian education is the National Education Policy 2020. This strategy has a connection to global education even though it makes some novel changes to the educational system. It was designed in accordance with the requirements of modern schooling. The human brain is capable of numerous forms of intelligence. If a person's skills are developed, he or she

can satisfy their own desire on their own. By ensuring a low dropout rate, it is an

Important tool for providing all aspirant students with excellent education, regardless of their socioeconomic status. No child should be denied entry to a top-notch education because of their socio-cultural background, according to NEP's primary motto, "Equitable and Inclusive Education". NEP seeks to increase the emphasis on improving teacher preparation, changing the current exam system, early childhood care, and reorganizing the educational regulatory framework. The viewer will learn about the Development of the caliber of e-learning content for this paper, as well as Growth after NEP 2020.

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OPPORTUNITIES AND CHALLENGES OF ARTIFICIAL INTELLIGENCE IN MULTIDISCIPLINARY EDUCATION

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ABSTRACT
Since the beginning of the industrial revolution, various manual tasks and processes that had been in use for years and where humans had reached the physical limitations of their abilities have been transformed by considerable advancements in technical innovation. In a wide range of commercial, academic, and societal applications, artificial intelligence (AI) provides this same transformative potential for the augmentation and eventual replacement of human functions and activities.

The emergence of AI technology has the potential to disrupt a wide range of businesses, including those in banking, healthcare, manufacturing, retail, supply chain, logistics, and utilities. In order to highlight the significant opportunities, realistic assessment of impact, challenges, and potential research agenda posed by the rapid emergence of AI within a number of domains, including business and management, government, the public sector, and science and technology, the study combines the collective insight from a number of leading expert contributors. This study recognises the influence of industry and society on the speed and direction of AI development while providing important and timely insight into AI technology and its implications for future business and society.

Keyword: Artificial intelligence, AI, Multidisciplinary, technology

INTRODUCTION
Artificial intelligence (AI) is a topic that has been discussed in public for many years. It is frequently portrayed in science fiction movies or discussions about how clever computers will eventually rule the planet, consigning humans to a menial existence in support of the new AI order. The reality is that artificial intelligence has arrived in the present and that many of us constantly deal with the technology in our daily lives, despite the fact that this image presents it in a somewhat caricature-like manner.

No longer the domain of futurologists, AI technology is now a crucial part of many organisations' business models and a crucial strategic component of plans for many international sectors of business, medicine, and governments. With recent studies focusing on the repercussions and consequences of the technology rather than the performance implications of AI, which appears to have been the dominant research subject for a period of years, this transformational influence of AI has generated great academic attention.

With implications for productivity and performance, the capacity of AI to overcome some of the computationally demanding, intellectual, and perhaps even creative constraints of humans opens up new application domains in education and marketing, healthcare, finance, and manufacturing. Organizational AI-enabled systems are fast growing, revolutionising business and manufacturing, and extending their reach into areas that are typically thought of as being entirely human domains.

A Multidisciplinary Perspective
There are major concerns about the impact, governance, ethics, and accountability of AI-based systems given their rapidly expanding capabilities and increasing influence in our lives. worldwide use of these technologies. How can judgements be made regarding when, what, and

how AI should be used, as well as how to take into account the various viewpoints and needs of those who use, interact with, and are influenced by these technologies?

How can we use AI systems to their fullest potential while preventing them from exacerbating or even introducing new biases and inequalities? Computer science and engineering alone cannot provide an answer to these concerns.

In reality, we can claim that artificial intelligence is no longer a field of engineering and now involves a wide range of participants and disciplines. An essential role for education is played here. However, the majority of the world's existing AI and robotics curriculum produce engineers with an overly limited work perspective. Engineering education has to be expanded to incorporate the following due to the widespread impact of AI on society :

1. Analysis of how distributed AI applications integrate socio-technical systems and the intricacy of agent-human interaction.
2. A discussion of the significance and overall impact of the autonomous, emergent, decentralised, and self-organizing nature of distributed learning units.
3. Incremental design and development frameworks, unanticipated good and bad effects of individual choices on a system level, as well as how these affect democracy, education, and human rights.
4. The effects of diversity and inclusion in design, and how these influence methods and outcomes.
5. Understanding of governance and normative concerns, including perspectives on health, safety, risks, explanations, and accountability, in addition to comprehension of competencies and obligations.
6. The cultural, legal, and economic frameworks that underlie socio-sociotechnical systems.

Possibly another method to draw in a more diverse student body is to expand AI programmes.

It is reasonable to assume that female students, who typically choose humanities and social sciences over engineering, may be inspired to pick AI if the field's courses are known to be transdisciplinary. Curriculums in the humanities and social sciences must also incorporate lessons on AI theory and application. For instance, legal specialists must be prepared to address legal and regulatory challenges related to AI through legal education programmes.

Software Engineering for AI Systems

With the development of AI approaches, businesses and developers now have the chance to create software solutions that handle tasks intelligently, increase accuracy and efficiency, and offer a tailored user experience. AI has been extensively used in a variety of fields, such as patient diagnosis and creating chatbots to enhance customer Clever tutoring systems also improve the educational experience.

Building AI products entails creating models from insights as well as software and the process of gathering insights from data (data-centric) (model-centric or product-centric). Data preparation, model creation, and model deployment are the three high-level phases that make up the process of extracting insights from data.

The technical challenges of software engineering for AI systems have been previously studied. These challenges include difficulties in problem formulation and specifying desired outcomes, a lack of critical analysis of training data, and a lack of model evaluation with business-centric measures. The development team must also take into account a variety of factors when creating AI products, including interactions, performance, cross-platform usability, and social good.

Despite the relatively low usage of documentation for this purpose, the AI development team must embrace communication between diverse roles and leverage the experience of each other. Our research intends to provide light on the mechanisms underlying cross-role and cross-stage communication within AI development teams.

Emerging Roles and Collaboration Practices of AI Development Teams

In a data-centric workflow, new roles and collaborative techniques have been identified through prior research. People with the technical know-how to identify patterns and manage data in a variety of contexts are referred to as "data scientists" in our terminology.

Sectors include business intelligence and decision sciences, marketing and product analytics, fraud and risk analytics, data services and operations, and infrastructure as well as engineering and infrastructure data.

Building AI systems falls under the umbrella of data engineering and infrastructure, where data scientists need to have strong development and implementation abilities. Data scientists continue to transform numerous careers in various industries as a result of the expanding impact of data science. For instance, in order to incorporate machine learning into their own processes, many software engineers are currently learning about it using unofficial resources (such as interactive machine learning tools). Data science teams that work well together can benefit from one another's skills and produce better results. Various team setups, including professional data scientists, civic data scientists, subject matter experts, and software-oriented data analyzers, have been the subject of studies examining collaboration methods. The broad methods of collaboration employed by technical and non-technical team members in data science.

Communication Challenges in AI and Software Engineering Teams

The communication challenge is acknowledged to be broad and tough in the field of data science. Data scientists and biomedical scientists frequently have different incentives when working on scientific discovery projects. Due to a mismatch in their incentives, users who were biomedical scientists kept asking data scientists new questions even if the data scientists still hadn't found a solution to their earlier query.

Sometimes the data scientists are unable to convert a business challenge from a subject matter expert into a clearly defined data science problem. In order to translate for the conversation, a third party may be required to play the "broker function" or act as a bridge.

Developed a system that enables AI engineers to have informal conversations while working on their code in a Jupyter Notebook environment. The system may then use these messages as contextual links for the code. Shared waypoints and social tagging were examined by Storey et al. in collaborative software development. However, the majority of systems weren't designed with inter-role communications between an AI developer and a domain expert in mind; they were instead created to support conversations between technical AI developers.

With a focus on the communication difficulties that occurred between the AI developers and the collaborator domain expert, we thus conducted this interview study to examine the communication patterns of AI development teams.

AI Team Working Practices

The consensus among participants was that the AI project is divided into two teams: an AI team and a stakeholder team.

The stakeholder team's needs must be gathered by the AI team, who must then formulate the issue in terms of data science and create an AI model to address it. The Stakeholder team is in charge of assisting the AI team in understanding the real-world problem, offering

recommendations, and verifying and consuming the final model outcome. They frequently have extensive expertise and domain knowledge in a particular industry.

The data scientist and the strategic consultant are the two major positions in the AI team. Models are created and evaluated by data scientists. The project is guided by the strategic consultants, who also maintain contact between the two teams. The domain specialists, data scientists, software developers, and business experts make up the stakeholder team. The subject matter specialists in the area of the problem that the AI team is attempting to assist in solving are known as domain experts.

Data scientists work on the stakeholder teams, but their primary responsibility is to sustain the AI team's solution. The data scientists on the stakeholder teams are typically more focused on their particular business domain than the data scientists on the AI team. It is the responsibility of software engineers to assist in integrating the AI solution into a programme or service. The business expert is a management position that is in charge of managing a complete business sector that is represented by numerous domain experts.

This graph was produced using the murals the project-overview interview participants painted. This diagram illustrates how, as a project progresses, different roles move in and out of various lifecycle phases. As a result, a lot of the work is done in secret, which may explain why it might be difficult to maintain a shared understanding of all the responsibilities.

CONCLUSIONS

The creation and application of AI have raised numerous questions. Fundamental questions regarding what constitutes intelligence, what constitutes a fair and right judgment, how to strike a balance between the interests of the individual and the group, how to resolve moral conundrums, or how automation will affect the labour market cannot be resolved by technology alone. These concerns require interdisciplinary approaches to be answered.

The purpose of the research paper is to advance knowledge in the humanities and social sciences about the problems that AI, autonomous systems, and software are posing, as well as to lay the groundwork for using this knowledge to educate society and business about how to design socially conscious systems and their potential effects on business, society, and humanity. We are eager to work with other organisations doing programmes that are comparable to ours.

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MULTIDISCIPLINARY EDUCATION IMPLEMENTATION ISSUES

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ABSTRACT
The need to inculcate a multidisciplinary approach in education has been felt for quite some time now, but the basic idea has so far remained confined to theories and discussions. Multidisciplinary or multidisciplinary learning is a "whole" or "complete" approach that integrates various knowledge disciplines to cover an idea, topic, or text. It is a very powerful method of teaching that crosses the boundaries of a discipline or curriculum in order to enhance the scope and depth of learning. Multidisciplinary education is a form of educational strategy that brings together multiple disciplines to create a holistic learning experience. It is designed to foster an understanding of the interconnectedness of various fields and how they can be integrated for better problem-solving

***Keywords**: Multidisciplinary education, challenges, National Education Policies, NEP 2020*

INTRODUCTION:
Multidisciplinary science **enables researchers to cross boundaries between disciplines and gain unique insights into their subject**, as the researcher spends time working on a problem that intersects two fields, for example, combining neuroscience and psychology, or biochemistry and nano-technology.

Here are few Examples of Multidisciplinary Approach?

- A student who has taken science and mathematics also studies history.
- An engineering student can pursue a subject in humanities

Multidisciplinary education, if implemented in schools and colleges, allows students to gain a deeper understanding of the subject matter through the lens of different disciplines. A multidisciplinary curriculum means studying the same topic from the viewpoint of more than one discipline. It is also called cross-disciplinary which indicates the aim to cross boundaries between disciplines. This approach encourages creative thinking, critical analysis, collaboration, and communication skills. This type of curriculum integration highlights the diverse perspectives that different disciplines can bring to illustrate a theme, subject or issue. Here multiple disciplines are used to study the same topic. This way of learning gives a major focus on diverse perspectives and different disciplines of learning to illustrate a theme, concept, or any issue. It is the one in which the same concept is learned through multiple viewpoints of more than one discipline. It helps the students to gain perspectives and knowledge in different ways. A student who uses a multidisciplinary approach develops a wealth of skills that are easily transferable to different work settings, including problem-solving, critical thinking, time management, self-management, communication and writing, analysis and research methodologies, teamwork, and much more.

The National Education Policy (NEP) 2020
It aims at bringing about a multidisciplinary approach in education – firstly in schools and then eventually in colleges as well. The National Education Policy (NEP) 2020 is an ambitious policy document aiming to revolutionize the education system in India. One of the key aspects of the policy is the emphasis on a multidisciplinary approach in education.

The NEP 2020 emphasizes the need to incorporate this educational approach into the curriculum from an early age. By giving students exposure to multiple disciplines, we can help them understand their chosen field better and also develop an appreciation for diverse

knowledge systems. This will enable them to become more well-rounded citizens and prepare them for the future.

Limitless learning and a special educational system that encourages a multidisciplinary approach to assist pupils follow their passion are crucial in today's intensely competitive world. Although the **National Education Policy 2020 (NEP 2020)** has asked institutions to pay attention to it, stakeholders are still in a dilemma about its advantages & disadvantages.

In this article, I am going to cover the advantages and disadvantages of a multidisciplinary educational approach. You can use these ideas, whether you're a member of the faculty, a learner, or an educator, to promote institutional success.

How to promote it?

The NEP outlines several measures that will help facilitate a multidisciplinary approach in education.

Firstly, it promotes interdisciplinary studies across different educational institutions. This includes collaboration between universities, colleges, research institutions, and other organizations. Secondly, it encourages the integration of traditional Indian knowledge systems into modern curricula. This helps enrich the learning experience by providing students with a more holistic view of different topics.Finally, the NEP encourages the development of courses and programs that cover diverse disciplines like mathematics, science, arts, technology, and humanities.

Multidisciplinary education is a vital part of India's modern education system. By embracing this concept, the NEP 2020 seeks to give students access to a wider knowledge base and skills and prepare them for a rapidly changing world.

It encourages students to broaden their learning beyond traditional boundaries, explore multiple perspectives, and cultivate new skills. This type of learning allows students to develop a more comprehensive understanding of any given topic and to integrate knowledge from different fields better.

By providing a wider range of learning opportunities, we can provide students with greater flexibility and choice in their studies. For example, a student studying history can choose to pursue a minor in economics or political science, or a student studying math can choose to focus on coding or data analysis. This approach can help them gain new skills and knowledge that they may not have encountered otherwise.

In addition, a multidisciplinary approach in education enables students to explore topics from different angles, allowing them to form their own opinions and views. The NEP 2020 aims to make multidisciplinary education the norm across all levels of education in India. By making it part of the mainstream curriculum, this approach to learning will be accessible to more students and can help create a new generation of thinkers and innovators.

Advantages of Multidisciplinary Approach in Education

1: The Privilege to Choose

To change the mindset of youngsters and make them realize the power of the Indian education system, authorities have seriously taken great efforts and multidisciplinary education is a live example of it.

With multidisciplinary education in colleges, students get a right to choose their favorite subject, the subject that they want to learn. Subjects that can **add some value** to their knowledge. Subjects that can **raise the bar of education.**

Not the ones which are forced onto them.

Ultimately, it will help in establishing a more **collaborative** teacher-student relationship.

2: Reach Within To **find your Passion**
Choice of subjects is the main phrase here, but students' personal development is also benefited. Let's make it simpler for you.

On one hand, as a faculty, one has the power to innovate the usual teaching-learning processes. And on the other, students will be able to access **vast e-content** that can help them realize their passion or true purpose.

The more e-content they consume, the more insights about their deeper interests they'll find!

Even when students are clueless about their passion initially, they can discover it during the teaching-learning journey. Hence, a multidisciplinary approach together with online education tools like a learning management system (LMS) integrated with the college ERP software can help students grow personally.

3: Pragmatism & Flexibility
Multi-disciplinary education allows students to understand the power of new ideas.

It helps them develop a **pragmatic attitude** by allowing them to decide what subjects they will opt for and what could be their possible benefits. They get time to make a decision by calculating the risks & advantages. Thus, a multi-disciplinary program brings pragmatism and flexibility to the table.

It enables students to **carve their own path** by utilizing their mind-power.

Multidisciplinary research encourages more critical thinking, integrates several fields, and cultivates abilities for lifelong learning.

Challenges of Multidisciplinary Approach in Education

1: Distractions
Honestly, getting distracted from the final learning goal may become prevalent with multicultural education. Sometimes, students may feel a little bit lost as they hop on to a variety of subjects & courses. The only thing that can save them from getting distracted is planning & keeping a tab on their daily activities.You must have university management software or college ERP software with an advanced activity monitoring platform, such a dashboard, if you're a professor or instructor. The dashboard will help you analyze the students' progress reports on a daily basis. Whenever you feel that things are going smoothly, you can always re-plan your online education imparting techniques!

2: No Master- Only Jack!
There's a famous phrase – ***"Jack of all trades, Master of none."***

It can manifest into reality & back-fire all your plans for achieving the **best student learning outcomes.**

I agree that having a few skills in your kitty is an advantage.

However, if you have gained knowledge of everything, but haven't achieved expertise in one skill that matters the most, then there's no use of other skills as well. Students need to have **expertise** in one domain that they like. With multi-disciplinary college education, faculties have to be extra careful when they evaluate the students' performance. They need to ensure that their students achieve mastery in one domain at least.

3. Team building
Maintaining a productive and friendly team can become difficult. Issues such as **uncertainty of the team's position in the overall service, caseload, poor coordination between team members, and uneven work distribution** may cause disruption.

4. Lengthy decision-making process.
As each team member contributes their opinions to a problem or scenario, it can take a long time for everyone to come to a consented decision. If there are no effective means of swift communication, the decision-making process may become much longer. heightened conflict

5. Factors that can hinder effective multidisciplinary working
- Separate documentation.
- Poor working relationships.
- Lack of awareness and appreciation of the roles and responsibilities of others.
- Limited time and resources.
- Overlapping of roles and duplication of services.
- Poor communication.
- The biggest drawback of interdisciplinary research is that it might be challenging to draw connections between several fields of study.

The Challenges for Implementing it in India
- Schools need to equip themselves with experienced staff who are capable of delivering such an approach and ensure they have the necessary resources.
- Additionally, there needs to be greater collaboration between different departments and institutions to ensure successful implementation.
- Lastly, many school systems lack the infrastructure and support needed to successfully integrate multidisciplinary learning.
- Students should be given the freedom to explore different topics, develop critical thinking skills and gain a deeper understanding of how different subjects interact with each other. With the right support and resources, multidisciplinary education can revolutionize the Indian education system and provide students with the tools they need to thrive in the modern world.

How do multidisciplinary teams overcome challenges?
Overcome Organizational Obstacles Larger organizations often become compartmentalized, and that can lead to stalled progress.

An method that involves a diverse team dismantles institutionalized silos and fosters team cohesion. This frequently results in quicker problem-solving.

CONCLUSION
Multidisciplinary education is a concept that has been embraced by the Indian government through the new National Education Policy (NEP) 2020. This approach to learning looks at how different disciplines can interact and overlap with each other to create a comprehensive understanding of a subject. A multidisciplinary approach in education is often seen as the ideal way to tackle complex problems and will be essential for India's continued success in the global economy. With the NEP 2020, India is well positioned to build on its current educational system and move towards a more multidisciplinary approach.

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A SURVEY ON THE ROLE OF SOFT SKILLS IN MANAGEMENT EDUCATION

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ABSTRACT

Soft skills are more important in management education. These skills are also highly sorted by students in the management of education. The main aim of this survey was to investigate students' perceptions of how soft skills are essential for their education and employment. A set of questionnaires was used for data collection through Google Forms. It was found that a majority of the students felt that soft skills were useful for social interaction as well as for career advancement. The top five important soft skills agreed upon by the students were: teamwork and collaboration, decision-making, problem-solving, time management, and critical thinking skills. Due to upcoming educational trends, the flexibility of educational programmers, the abundance of highly skilled workers, and the fiercer competition for jobs, getting jobs and finding them in the current scenario is getting difficult. Students have no choice but to gear up their hard skills and soft skills in order to show their potential. This paper focused on the role of important soft skills in management education.

Keywords: Soft Skill, Management Education, communication skills, managerial skills

1. INTRODUCTION

Back when people with excellent academic records and a combination of good relevant work experience were admitted by the majority of business institutions, the education system as well as market strategies were evolving quickly. However, in the modern era, cognitive ability and experience are not sufficient for entry and advancement in the business world. At the moment, employers only hire and encourage people that are creative, self-directed, and have outstanding communication skills. This is one of the key causes of the decrease in corporate hiring.

Despite the fact that interpersonal skills are so important, the majority of schools, universities, and institutions lack excitement for including soft skills training into their curricula. The academic landscape is rapidly evolving in the modern day. In the current environment, no of how knowledgeable a person believes they are in terms of hard skills or technical skills, they will not be successful in the corporate world if they are unable to interact or communicate with their team members or clients.

It is general knowledge that the faculty and management of any college or institution charge newcomers of lacking soft skills and interpersonal abilities, which makes them unsuitable for employment. Speaking about academic institutions, they decline to accept any accountability, thus it is entirely up to the guardians to teach their wards soft skills. The eventual result of all this commotion is that the student suffer as everyone tries to place blame on one another.

2. REVIEW OF LITERATURE

In general, soft skills are people's skills or behavior skills. The power of a person as a "leader, listener, speaker, or as a conflict mediator" is determined by their soft skills, which are "non-technical, intangible, personality-specific skills." Soft skills are character traits and propensities that have more to do with attitude and behavior than knowledge or technical ability (John, 2009). The skills that an individual possesses that complement their hard skills are known as soft skills. Whereas soft skills are not a replacement for technical or hard skills, they function as complementary abilities that help people with good hard skills unlock the potential for highly effective performance.

"Skills refer to an individual's degree of performance on a specific activity or their capacity to do a job well, and they can be further separated into technical parts and social elements" (Noe, Hollenbeck & Gerhart, 2015). Technical criteria evaluate "HARD" technical talents, whereas communication criteria evaluate "SOFT" skills, which cover applicants' attitudes and methods of working, such as their capacity for teamwork (Daud, Abidin, Sapuan & Rajadurai, 2012). The disparity between what the market requires in terms of skills and what local academic institutions are currently providing is known as the skills gap (Alsafadi & Abunafesa, 2012).

In accordance to Bancino & Zevalkink's (2007) explanation in their article, Thornton & Perreault (2004) defined that a competent manager needs to strengthen his personal traits & attributes with total skill development; they stated that hard core professionals are unemployed owing to soft skills. They claimed that only people with good soft talents are desired after by employers. Effective communication abilities, teamwork, interpersonal skills, and a respect for diversity, honesty, ethics, and integrity are examples of soft skills. These abilities are critical for top performing firms to successfully retain their personnel, according to numerous studies. Technology transformation is the key factor driving businesses' demands for communication and presentation abilities from management students due to the dynamic environment (Mitchell et. al, 2010)

Literacy, numeracy, and life skills are essential skills needed for successful educating students, according to McGrath, S. (2012).After getting their degree, management students looking for work must make sure their abilities match with those needed by companies and work to develop those that are still lacking. The foundation for student improvement is the quality of skill development. The strength and weaknesses of the institutions affect quality. Although they may have a degree, students cannot get employment since businesses do not view them as useful resources. 2012 (Okada, A.)

However, according to academics like Robles (2012), "despite management students' complete knowledge of the subject and theoretical components, they fall short in functioning effectively and efficiently due to a lack of soft skills." In higher level leadership and management roles at work, "soft skills like communication, interpersonal, and critical analysis - plays a significant part" (Bedwell et. al, 2013).

According to Ramos, F. (2014), there are a number of university courses that focus more general information, which is enough for a young person to start their profession and function well as a team in the workplace. Many researchers have underlined the importance of soft skills for new hires.

3. OBJECTIVES OF RESEARCH

1) To study the effective communication skills.
2) To study the usefulness soft skills in management education.
3) To study the importance soft skill required in management education.
4) To study the usefulness of management education for improving managerial skills.
5) To study the usefulness of management education for developing entrepreneurial skills.

4. RESEARCH METHODOLOGY

This is a fact finding research approach. Research was based on the survey method. The survey of students conducted for knowing the responses to Upcoming education policies. Student’s opinion and their interest in application of soft skill management in education.

5. Sources of Data:

A) Primary Data:
Data were collected through the questionnaire and discussion with the students and few from parents.

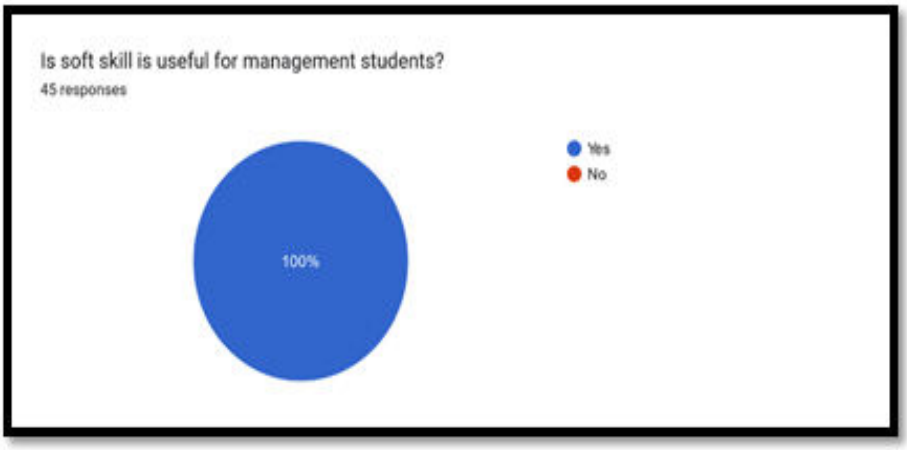
Questionnaire were sent to students.

B) Secondary Data: Data gathered by websites and journals.

6. Sample Size: Collecting a data in a simple random sampling technique was used. Data were collected through the survey. 45 Students were selected as a sample from college.

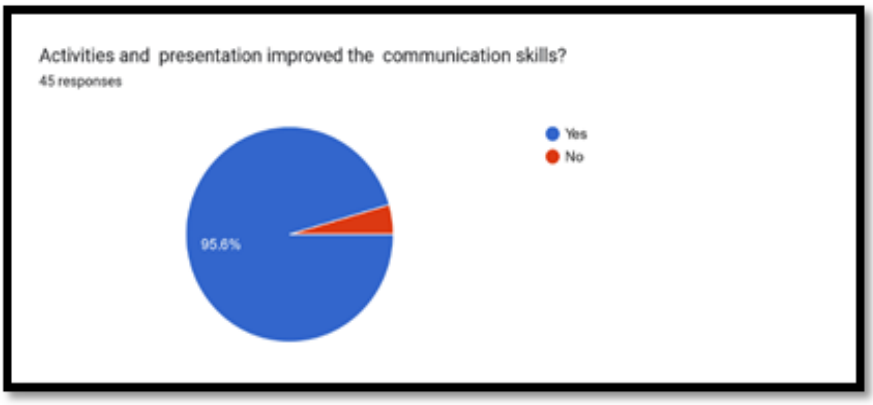
7. Data analysis and interpretation:

Data collected from the students through questionnaire form. The analysis of responses collected from the students are as follows:

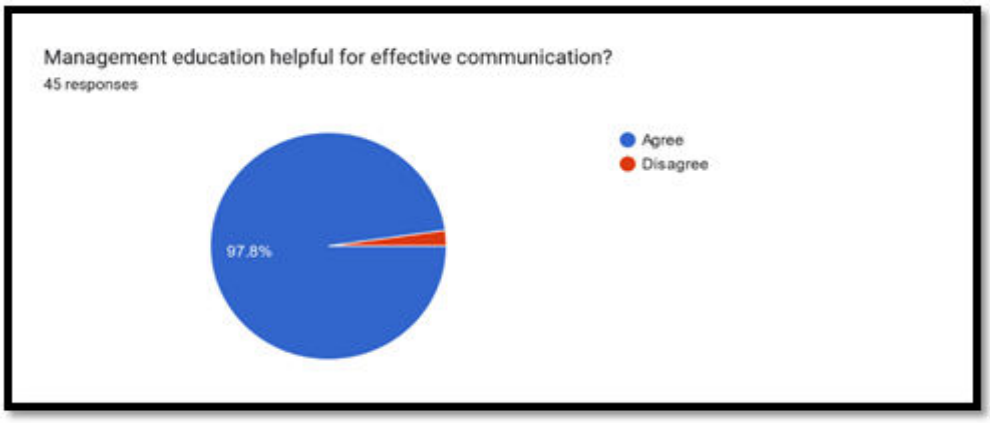


This pie chart shows is soft skill is useful for management and round 100% of students were agree

Soft skills can help you manage stress and feel at ease in the role. So here we can understand that how the soft skill is much more useful for management as shown in chart.

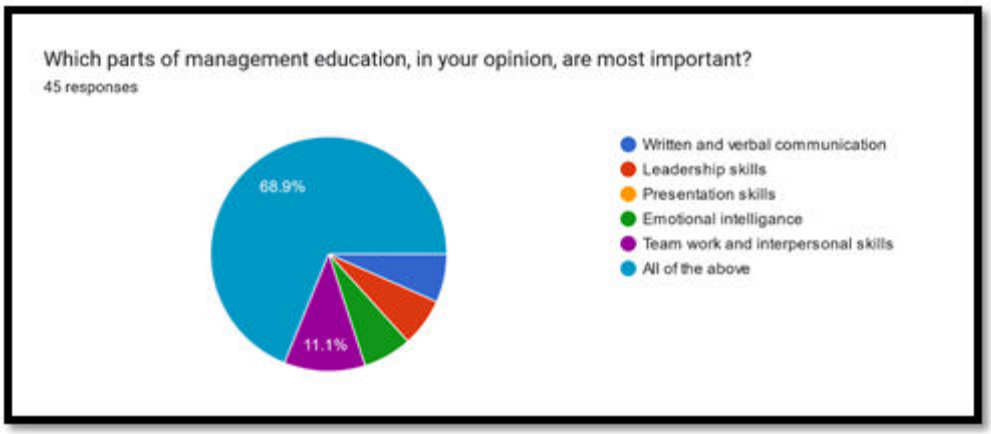


This pie chart shows the activities and presentation improved the communication skills and hence has been proved that more than 95.6% of students are been agreed. If we have effective presentation skills, this means you are good at communicating.



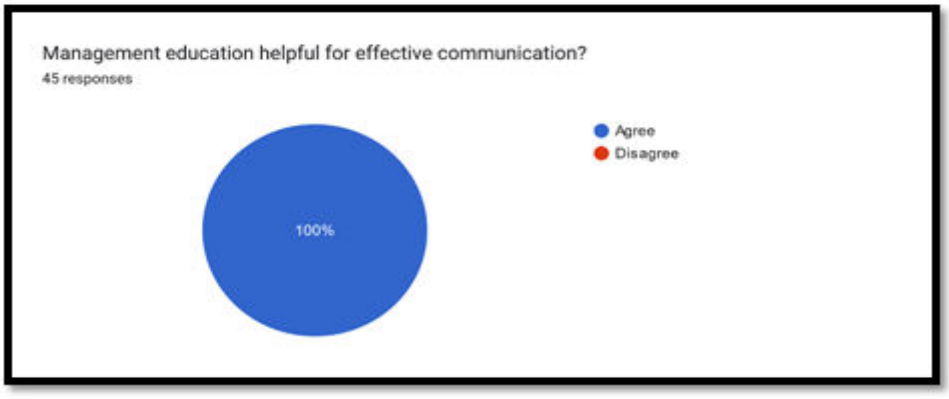
This pie charts shows that the management education helpful for effective communication and round more than 97.8% of students are agreed that the management education is helpful in effective

Communication.

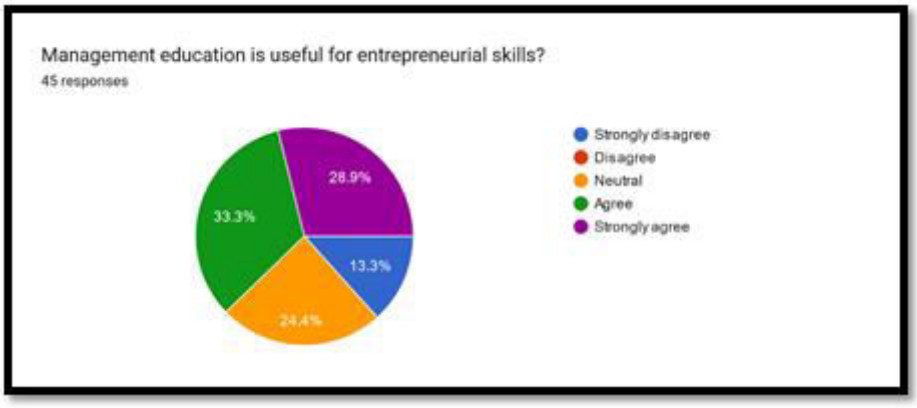


This pie chart shows that in which part of management education would students think is most important and around 68.9% of the students refers to written and verbal communication, leadership skills, presentation skills, emotional intelligence, team work and interpersonal skills.

Round 11.1% of the students refers to team work and interpersonal skills and over 5% of the students think that written and verbal communication, leadership skills, presentation skills and emotional intelligence are most important part of the management education.



In this pie chart we can see that how the effective communication is helpful in management education and as we can see over 100% of students are agreed to this that management education is most important and helpful for effective communication.



In this pie chart we can see how the entrepreneurial skills are useful in management education and over the students point of view 33.3% of students are agreed to the given question, over 28.9% of students are strongly agreed, 24.4% of students are neutral to the question and 13% of students are disagree to the question

Hence it has been proved that average students are agreed that the entrepreneurial skills are useful in management education.

8. FINDINGS OF THE STUDY

1) Most of the students participated in online survey, and gave positive feedback. Hence most of the students have been agreed that soft skills are useful in management education.
2) More than 100% of the students have the agreed that management education are effective in communication platform also.
3) It has also been seen that the students also refers to written and verbal communication, leadership skills, presentation skills, emotional intelligence, team work and interpersonal skills and also says that in education management this above skills are most important.
4) On the other hand we have also found that in management education the entrepreneurial skills are also important and over average students were also agreed to this.
5) In the end it has been also proved that activities and presentation also improves the communication skills.

9. CONCLUSION

Here, I conclude at the end that in leadership positions, soft skills are increasingly replacing hard talents. High-level technical training is simply insufficient if a person lacks the softer, interpersonal, and relationship-building abilities necessary for successful collaboration and communication.

In a short, they are the manners and personality qualities required to get along with people and create successful connections. Soft skills, as opposed to hard skills, which are generally transferable across job titles and industries and include a person's technical skill set and capacity for carrying out certain functional activities.

Such desirable traits, such integrity, communication, kindness, responsibility, professionalism, creativity, and teamwork, are referred to as soft skills, sometimes known as key skills, core skills, core competencies, or employ ability skills.

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THE ADVANTAGES OF A MULTIDISCIPLINARY EDUCATION

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ABSTRACT
Due to the fact that education promotes societal advancement, a nation's ability to provide school and higher education depends on its system of educational policy. The stages of the school and college education cycle vary amongst different countries' varying educational systems. Yash Pal Committee Report underscores the importance of multidisciplinary education. The report notes "there is a need to expose students, especially at the undergraduate level, to various disciplines" (Yash Pal, 2009, p. 21). For the modern university, its administration, and its faculty, interdisciplinarity is a core tenet of operations. The National Education Policy 2020 is a crucial piece of legislation that outlines the government's goals for upgrading education in India. Modernization can only be accomplished by focusing on multidisciplinary education. This article discusses about advantages of multi disciplinarity in Education.

Keywords: interdisciplinary, multidisciplinary, NEP, Advantages of Multidisciplinary Education

INTRODUCTION
Young adults nowadays are more self-aware, capable of making decisions, and accountable for their own destinies. Modern universities have a responsibility to provide an educational environment that stimulates discovery, growth, and most importantly, maintains the flame of curiosity perpetually burning when students enter the realm of higher education. A multidisciplinary approach can help with all of this and much more. But because we come from a time when academic departments don't interact with one another, opportunities are obscure, and access is limited, it's critical to first comprehend the possibility of a multidisciplinary education. It's normal for a young person just out of high school to lack perspective on the decisions that lie ahead in life. Higher education is not just about mastering specialised knowledge; it's also about identifying your interests, fostering your passions, utilising your talents, pushing yourself, and developing as a learner, person, and member of society.

In order to extend the breadth of higher education through a variety of disciplines of study and to guarantee the learner's freedom and autonomy in choosing their course of study, the New Educational Policy 2020 emphasises on a multidisciplinary approach.

Why Multidisciplinary Education is The Need of the Hour
The world is evolving quickly in many different ways. There are many topics emerging due to a lack of resources, and this trend will continue to grow. Without the ability to support themselves in today's competitive atmosphere with the aid of a job, a person would be forced to specialise, which would not only cause them to go bankrupt but also impede their academic advancement. The ideal course of action in this case would be to have a multidisciplinary education where people would study several courses, making it simpler for them to get employment because their skills could be applied to many other fields. The increased emphasis on employability is a crucial factor in the promotion of multidisciplinary education. Many individuals with reasonably respectable CGPAs who graduate from college lack the abilities required to be hired by a corporation. The level of subject-specific knowledge a student has is closely related to their employability. The job descriptions of the majority of organisations today are multidimensional, so expanding one's knowledge in a single area won't cut it. Multidisciplinary education can help in this situation.

ADVANTAGES OF MULTI-DISCIPLINARY EDUCATION

1. Giving Students Academic Autonomy

A creative setting where kids can learn at their own pace is what the modern world requires. Online education is bridging this gap, but student autonomy has the potential to close much more of it. Giving students the flexibility to study what they are interested in is crucial to fostering their creativity and assisting them in developing original ideas that can influence the future. With a multidisciplinary education, students can select their preferred disciplines, becoming incredibly knowledgeable on those subjects and improving their learning.

2. Learn more, at once

The best universities in the world exhibit quite distinct learning processes. Students can enrol in courses from many institutions, consciously erasing boundaries between subjects. As a result, the depth and breadth of a university education are greatly improved. Multidisciplinary universities are always the most effective. In addition to exposing students to new and varied disciplines, concepts, views, or perspectives, a multidisciplinary education also enables them to identify their personal interests and learn how to connect their specialised fields of study to other factors. You would benefit from studying public policy while also enrolling in classes on journalism, law, or the environment.

3. Create a New Generation of Lifelong Learners

A concept known as continuing education encourages students to continue learning after they graduate, even when they are not required to do so by their course of study. Students that are truly invested in the material they have learned will continue to be interested in it, which is the result of continuous learning. With a multidisciplinary curriculum, students will only have to study what they are passionate in, which will keep them interested in it even after they have earned their college degree. It might encourage a group of individuals to continue learning throughout their lives, which is crucial in the twenty-first century.

4. Encourages the Growth of a Pragmatic Mindset

In that it can aid pupils in comprehending the strength of novel ideas, multidisciplinary education is exceptional. Given the option to select the courses they are interested in and the potential benefits of each, it may aid in the development of a pragmatic attitude towards learning. They will have enough time to weigh the benefits and the calculated risk before making a choice. Thus, it enables pupils to forge their own route and make the most of their mental strengths.

5. Aids in Developing Vital Soft Skills

Time management, problem-solving, and decision-making abilities are some of the most crucial soft skills needed in the twenty-first century. All of these can be easily encouraged in a multidisciplinary curriculum because, when you give a student the freedom to choose what they want to study, you are actually helping them develop their problem-solving and decision-making skills. This is because, at such a young age, they will have to make decisions that will have a significant impact on their lives, so they will be aware of the responsibility that goes along with them. After that, the student will give every decision careful thought, making them all lot more sensible.

6. Holistic Comprehension

A multidisciplinary approach to education has many advantages, one of which is that it fosters a more comprehensive view of the world. A multidisciplinary approach combines portions of each department into the study plans of the other, as opposed to looking at individual departments and their subject topics independently.

7. Diverse Viewpoints

Have you ever been working on a problem on your own and encountered a portion that completely stumped you? You spend hours staring at it yet are completely baffled. Then, one day, a friend strolls by, picks up that crucial component, and precisely positions it. Ah, the power of several viewpoints!

8. A Practical Approach

Multidisciplinary learning is more than just a schooling concept; it's also a practical approach to comprehending the world. Why should school be any different than working with people from diverse disciplines when you graduate? Your ability to gather information and work with individuals from various backgrounds will help you succeed in the workplace.

9. Collaboration Skills

Any educational path you choose should highlight the value of teamwork. However, the concept of working together to produce a greater whole is one of the most significant benefits of a multidisciplinary curriculum. Effective communication with individuals from different fields is essential to multidisciplinary learning. You have a common lexicon, share their ideals, and comprehend their driving forces. These abilities will enable you to collaborate effectively with your peers, forge connections, and resolve challenging issues.

CONCLUSION:

Multidisciplinary education is essential for moving society in a path that is both inclusive and forward-thinking. Why should education be like that? Nothing in nature and nothing about human nature or human beings is black and white. The existing educational system was developed to prepare individuals to work in factories and coal mines while adhering to directives. It is past time for us to modernise, not just in terms of curricula but also in terms of education. The industrial revolution began at the turn of the 20th century. Because they have all the tools at their disposal to figure it out on their own, it is past time to let students make the best decision for themselves. Giving them the freedom to think freely is all that is required; miracles will undoubtedly occur.

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7) Analysis of Higher Education in Indian National Education Policy Proposal 2019 and its Implementation Challenges P. S. Aithal* & Shubhrajyotsna Aithal** *College of Management & Commerce, Srinivas University, Mangalore – 575 001, INDIA **Faculty, College of Engineering & Technology, Srinivas University, Mangalore, India

REVIEWING ARTICLE ON RELEVANCE OF BOTANY AS MULTI-DISCIPLINARY EDUCATION

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ABSTRACT
The scientific and technological field of botany is wide and well-versed. Its study is centred on the evolution of plant structure, growth and differentiation, reproduction, biochemistry, metabolism, chemical components, the emergence of diseases, and the taxonomy of plants. The control of gene expression in a plant cell and molecular genetics and epigenetics have been the subjects of modern botany research in the twenty-first century. It can be used in many different ways to meet a human's fundamental needs for food, clothing, and shelter. the current article is a reviewing article which explains the scope, importance, application, and branches of botany as a multi-disciplinary subject.

Keywords: Botany, research, molecular genetics, epigenetics differentiation

INTRODUCTION
Botany is also known as plant biology or plant science. It is a discipline of biology that focuses on the study of plants. It is the science of plant life, the evolution of plant structure, growth and differentiation, and reproduction. A botanist is a person who specialises in studying plants. Botanists are scientists who investigate the biology of plants, particularly how they develop and change with their surroundings. In addition, there are other subfields of botany that concentrate on plant biology as well as forestry, horticulture, agriculture, conservation, and plant ecology. For instance, while plant physiology examines a plant's internal mechanisms and functions, plant taxonomy investigates how plants are categorised and arranged. Plant ecology is the study of how plants interact with the other creatures in their habitats. The fact that it has so many real-world applications; it is one of the more fascinating fields to study. Experts in plants frequently work in agriculture, landscape architecture, environmental protection, or even the cultivation of medicinal plants [1]. Understanding how people interact with and depend on natural resources like trees and other plants requires knowledge of botany.

The word "botany," which means "pasture," "grass," or "fodder". Ancient Greek, is the source of the word "botany" [3]. Thus, it is a fundamental science that aids in our understanding of the world and how we fit within it. We can understand how plants interact with their surroundings and how they adapt to various habitats by studying them. Additionally, the study of botany provides us with important knowledge regarding the function of plants in the Universe without an understanding of botany. We cannot completely comprehend or value the natural world.

Botany has historically encompassed the study of mycology, which is conducted by mycologists, and phycology, which is conducted by physiologists, together with the study of plants and biological communities. Botanists have currently researched roughly 400,000 different types of living things, of which about 260,000 are vascular plants and about 248,000 are flowering plants [3].

METHODOLOGY
We gathered both primary and secondary data online.

Divisions of Botany: The study of plant life and general plant function is a subfield of botany. Botany is divided into various subfields, including

Horticulture: This branch of botany is concerned with cultivating and learning about plants for use as food or medicine. It includes all topics, even the most fundamental. Gardening to industrial farming techniques [2].

Taxonomy: The science of classifying plants according to their morphological characteristics, such as the hue of their flowers or the shape of their leaves. This enables categorized plants into families, genera, and species by scientists [2].

Ecology: Ecology is the study of interactions between organisms and their surroundings. To better understand how various species interact with one another and their environment. Ecologists perform laboratory and field studies [2].

Systematics: Based on shared characteristics, such as ancestry or appearance, systematics investigates how plants are connected to one another. This area of botany also investigates the rate of speciation and the degree of interspecies relationships [2].

Despite the fact that each discipline of botany focuses on various facets of plant life, all branches of botany aim to increase understanding of how plants grow, metabolize, and function in the universe [2].

The Evolution of Botany

One of the first sciences, botany, has its roots in early human attempts to distinguish between edible, medicinal, and toxic plants. Later, the study of plants was included in science. Early botany was essentially utilitarian and scientific, and attempts to develop a more distinctive body of knowledge known as "natural philosophy" date back to the 16th century. Around this time, Carl Linnaeus, the pioneer of taxonomy, began early work on the classification of plants. Around 600 BC, the Ionian school's principal looked for plant names that would accurately describe the plant and be simple to recall. Initially, botany was a branch of zoology because all plants were either categorised as animals or minerals [3]. As this category evolved with the development of botany as a distinct field of study, this classification grew increasingly complicated. Theophrastus (c. 371-287 BC), an Aristotelian student renowned as the "Father of Botany," is credited with establishing modern botany more than 25 centuries ago in Ancient Greece [3]. Theophrastus' De Historia Stirpium, which was published around 300 BC, is regarded as the first botanical book [3]. He studied plants and divided them into three categories: trees, shrubs, and herbs. He also made a distinction between plants that produce fruit and those that only produce bare seeds. Given that it was a key text for 2000 years, this was one of the first works on botany.

Other early writers include Hildegard of Bingen in Germany, Theognis of Nicaea in Greece (304), and Avicenna (Ibn Sina) in Persia (1030). Abulcasis in Spain, Serapion the Younger in Egypt, and (1099) (early 11th century). The most well-known herbals were Johan Coler's Kreuter Buch, Agnolo di Tura's Herbal, and De Materia Medica by Dioscorides from the first century (1582) [3]. Many of these mediaeval herbals included images, while others included text that was completely illustrated.

The popularity of gardening and plants in modern times has given rise to various associated hobbies and occupations, including landscape architecture, landscape design, landscape gardening, and flower design. Botany, also known as plant biology, is a discipline of biology that deals with the scientific investigation of plant life. It involves research on mosses, algae, fungi, and terrestrial and aquatic plants. Agricultural botany and biology are different in that large-scale farming and forestry studies are excluded, and they normally doesn't cover planting or harvesting activities. Ethnobotany, the study of how people obtain their food and medicine from plants, is a practical application of plant life. Anatomy, biochemistry and physiology, ecology, growth and development, genetics, and molecular biology are some of the key research

fields in modern botany. Modern botany is therefore a multidisciplinary field that incorporates ideas and methods from almost every other field of science and industry. It includes fundamental science (like plant biochemistry), applied science (like agriculture and horticulture), medication discovery and development (like pharmacology and ethnobotany), and environmental biology among its equally diverse research fields (e.g., conservation and management).

Applications and Research Fields

Providing staple foods and textiles, modern horticulture, agriculture, and forestry, plant propagation, breeding, and genetic modification, the synthesis of chemicals and raw materials for building and energy production, environmental management, and the preservation of biodiversity are just a few of the many uses for botanical research.

The Relevance of Botany in the Modern Era

Botany is frequently referred to as the mother of all sciences. Although there may be some disagreement on this, botany has undoubtedly had a significant impact on contemporary civilization. The impact of this importance on agriculture, medicine, and environmental preservation are only a few examples.

Relevance of Botany as a Multidisciplinary Discipline in Agriculture

Agriculture is one of botany's most significant fields of application. Research on plants has produced the New and improved crop types that are more resilient to pests, diseases, and environmental stress have been developed as a result of botanical study. This has significantly increased global food security and decreased poverty in many poor nations. Like botany, which uses taxonomic applications to provide identification, classification, etc. for the recognition of novel species and fungal and bacterial infections. By creating biofertilizers, genetically modified plants, and other methods, it additionally aids in the development of yield [1].

Relevance of Botany as a Multidisciplinary Subject in Medicine

In medicine, botany also has a significant impact. For instance, plants have been utilised for thousands of years to provide natural cures for a range of illnesses and problems. Recent advances in botanical research have resulted in the development of numerous novel medicinal preparations, which are presently utilised extensively in the cosmetics, pharmaceutical, and other sectors [5]. Many medicinal plants, like *Amaranthus spinosus* L. contais higher alkanes, *Alternanthera sessilis* L. produces α and β-spinasterols, *Calotropis gigantea* L. contains cardiac glycoside, *Eclipta prostrata* L. contain Ecliptal, *Achyranthus aspera* L. yields saponins etc.[5], are utilised in their composition to help for natural herbal medicines, as well as algae such as *Spirulina* spps. is best source of antioxidants [8], *Lyngbya* spps. us Anti-Myocardial [7]. Fungi like, *Ganoderma lucidum* contain antiviral compounds, *Amanita muscaria* contains psilocybin and psilocin [6] for therapy. The ability to identify plants makes it simple to learn about their medical properties, and their phytochemical components have aided in the development of novel drug-producing plants in the pharmaceutical industry.

Relevance of Botany as a Multidisciplinary Field in the Environment

In order to preserve the ecosystem, botany is crucial. The study of plant species and habitats by botanists aids in our comprehension of the delicate balance that exists between humans and the environment. This is essential to safeguarding threatened species and maintaining natural environments for upcoming generations. Geographical factors like light, humidity, temperature, water, rainfall, and so on can be studied under the discipline of ecology through botany. This helps us to understand the delicate relationship between humans and nature. Techniques like in-situ, ex-situ, germplasm, gene banks, and so forth have proven to be sources for the conservation of natural resources [1]. Thus, it is evident that botany has had a significant influence on contemporary culture. Botany continues to play a significant role on our planet,

whether it be through increased food security, innovative medicinal procedures, and environmental preservation. Thus, it influences our lives in a variety of ways.

CONCLUSION

In conclusion, botany is an essential academic discipline that has a significant impact on contemporary society. This includes raising agricultural output, creating a fresh environment for preservation, and providing medical care. Despite its many advantages, botanical study encounters financial issues and issues with environmental deterioration. However, it continues to be a vital field of study that will influence our planet in the future.

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RELEVANCE OF THE NEW EDUCATION POLICY 2020 AND SUSTAINABLE DEVELOPMENT GOAL: AN OVERVIEW

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ABSTRACT
The National Education Policy (NEP-2020) has been introduced in India after thirty years by the current administration. The New Education Policy of India 2020 suggests revising and overhauling every aspect of the its regulation and governance, educational structure in order to create a new system that is in line with the aspirational goals of 21st-century education, including SDG4. At the same time, this new system will build on India's traditions and values. By 2030, Goal 4 (SDG4) of the 2030 Goal for Sustainable Development, which India endorsed in 2015, intends to "provide equitable and inclusive quality education and motivate permanent learning opportunities for everyone." In order to accomplish all of the crucial targets and goals (SDGs) of the 2030 Agenda for Sustainable Development, such an ambitious aim will demand that the entire educational system be redesigned to support and nurture learning. NEP-2020, which will replace the 1986's National Policy on Education, is a broad structure emphasising education from the primary level through higher education in the nation. The goal of any educational system is to help children, and the By 2030, the Gross Enrolment Ratio (GER) in education is expected to be 100% according to NEP-2020. To ensure that no child is denied the chance to gain knowledge of and succeed due to their situation of birth or surroundings.

Keywords: Education, Development, Environment, Human, Sustainable Society

INTRODUCTION
The 1st education strategy of the twenty-first century, the National Education Policy 2020, seeks to address the different and growing developmental needs of our country. In order to provide a fresh framework that adheres to the aspirational objectives of 21st-century education, such as SDG4, while drawing on India's customs and belief systems, the educational framework, including its governance and regulation, is proposed to be revised and modernised in this policy. The National Education Policy places particular focus on the enhancement of each person's creative potential. It is founded on the idea that education must foster the development of not only cognitive skills—both the "foundational skills" of numeracy and literacy and "higher-order" cognitive skills, including problem solving and critical thinking — but also of emotional, ethical, and social dispositions and skills. Under the direction of the United Nations, all 193 member nations jointly established the Sustainable Development Goals (SDG) in order to address the world's pressing economic, political, social, and environmental challenges in addition to the humiliation of poverty. These goals were established in relation to the MDG deadline. SDGs are more comprehensive than MDGs, which comprise a set of 17 universal goals and 169 targets that must be monitored by 232 different indicators. Ending poverty, preserving the environment, promoting peace, and ensuring everyone's prosperity were the goals. All signatory nations, including India, began drafting their national strategies for the ensuing 15 years in 2015. Out of the 17 goals, SDG-4, "Ensure equitable and inclusive quality education and encourage everyone to pursue a lifetime of learning," is about education quality. According to Ramesh Pokhriyal, Union Minister of Education, achieving foundational numeracy and literacy for all pupils by Grade III—a goal the government is committed to accomplishing by 2025—is one of the key foundations of NEP. Under programme of "Atmanirbhar Bharat", National Initiative for Proficiency (NIP) in related with NIPUN—Bharat means Understanding and Numeracy will shortly be created in order to translate this specific vision of NEP-2020. The educational needs of roughly five crore children between the ages of 3

and 11 would be met by this project. Additionally, the mission will adopt a comprehensive strategy and actively include all stakeholders in attaining the objectives. If NEP is adopted on all levels and concentrate on create education inclusive, egalitarian, and accessible, it will completely revolutionise the nation's educational system.

NATIONAL EDUCATION POLICY, 2020

The aim for India's future educational system is described in the NEP 2020, which was adopted by the Indian Union Cabinet on July 29, 2020. The former National Education Policy from 1986 has been replaced.

The National Education Plan 2020 (NEP 2020) aspires to achieve 100% GER (gross enrolment ratio) in school education by 2030 and a 50% GER increase in higher education, with the primary goal of reintegrating two crore out-of-school children. The policy's principal goal is to make high-quality services available to everyone, with the potential to turn India into a superpower in the field of knowledge. Every level of our educational institutions' curriculum and pedagogy must be structured in a way that promotes a profound respect for the fundamental obligations and constitutional principles as well as the conscious understanding of obligations. A responsible citizen who is committed to human rights and sustainable development in spirit, thinking, and action is what is intended to produce, construct, and rise.

The key components of NEP 2020 are:

1. Recognizing, appreciating, and developing each student's distinct strengths in academic and extracurricular activities.
2. Having all kids master fundamental literacy and numeracy skills by third grade;
3. Adaptability to select learning paths and programmes,
4. Dismantling barriers between, for example, the arts and sciences, extracurricular and extracurricular activities, academic and vocational streams, etc.
5. Emphasise a multidisciplinary and comprehensive education encompassing the humanities, social sciences, arts, and sports;
6. Emphasise intellectual comprehension over memorization and studying for tests;
7. Emphasise critical thinking and creativity for rational decision-making and innovation;
8. The significance of moral, constitutional, and human principles such as accountability, cleanliness, and respect for others;
9. A focus on language power and multilingualism in the teaching-learning process;
10. Improvement of life skills including resilience, cooperation, and communication;
11. Preference for frequent formative evaluations of learning over summative evaluations;
12. Significant use of technology in the evaluation and instruction of learning, including bridging linguistic barriers;
13. A commitment to diversity and the integration of local context into all curricula, pedagogies, and policies;
14. Integration of curricula from the primary to the postsecondary levels;
15. Consistent hiring, ongoing professional development, gratifying working circumstances, and conditions of service for faculty and instructors;
16. Upkeep of the regulatory framework to guarantee the moral character, openness, and resource effectiveness of the educational system;

17. Fostering and ensuring a favourable environment for research and development;
18. Regular professional review of progress;
19. Showcasing India's rich and varied traditions, ancient and current cultures, and spreading information
20. The right of every child to a quality education is a fundamental one;
21. A large investment in the educational system, as well as private and community involvement.

The 2030 Agenda for Sustainable Development

"A plan of action for people, planet, and prosperity" is what the Agenda is. There are 17 Sustainable Development Goals in it (SDGs). These objectives, which cover social, economic, and environmental aspects, are interconnected.

In line with its mission to "provide equitable and inclusive quality education and encourage permanent possibilities for everyone to learn" Sustainable Development Objective 4 (SDG 4) is the goal pertaining to education. Ten targets, seven outcome targets, and three modalities of implementation make up SDG 4. The foundation of global citizenship education policy and advocacy activity since 2015 has been ten SDG4 targets. The 7 outcome goals are:

1. **Universal primary and secondary education** –By 2030, all boys and girls will have had a free, equitable, and high-quality primary and secondary education that produces useful and efficient learning results.
2. **Early Childhood Development and Universal Pre-Primary Education** - By 2030, all boys and girls must have access to early childhood development, high-quality pre-primary education and care in order to be prepared for primary school.
3. **Equal Success to Technical/ Higher and Vocational Education** - Access to affordable, high-quality technical, tertiary, and vocational education, as well as university, for all people, men and women, on an equal basis. This will aid in skill development and technical and vocational education and training (TVET), beginning at the secondary level, as well as tertiary education, including university, and provide opportunities for lifelong learning for children and adults. In accordance with current international accords, tertiary education should gradually become free.
4. **Relevant Skills for Decent Work -** By 2030, there should be a significant rise in the number of children and adults with the necessary abilities, including vocational and technical skills for good jobs and entrepreneurship.
5. **Gender Equality and Inclusion** – eradication of gender gaps and guaranteeing equal access for the disadvantaged, including people with disabilities, indigenous peoples, and children in vulnerable situations in education, to all levels of education and vocational training.
6. **Universal Youth literacy** – By 2030, all children and adults worldwide should have attained levels of numeracy proficiency and functional literacy that are comparable to those attained at the successfully completing the fundamental education.
7. **Education for Sustainable Development and Global Citizenship**- Through education for global citizenship and sustainable development, which includes human rights and peace education as well as intercultural education and education for international understanding, citizens can acquire the attitudes, values, knowledge and skills necessary to lead successful lives, make informed decisions, and take initiative in addressing and resolving global issues, both locally and worldwide. All students should, by the year 2030, be equipped with the

knowledge and abilities required to advance sustainable development, including among other things, sustainable lifestyles, gender equality, human rights, the promotion of a global citizenship, nonviolence and culture of peace and appreciation of cultural diversity.

MODE OF IMPLEMENTATION ARE

1. **Effective Learning Environments** – This goal focuses on the requirement for sufficient physical infrastructure and welcoming, safe environments that foster learning for everyone, regardless of background or level of handicap. To construct and renovate educational facilities that are gender, child, and disability-sensitive and offer all students a secure, non-violent, inclusive, and productive learning environment.

2. **Scholarships** - To enrol in higher education, including technical training and programmes in information and communications technology, engineering, and science in developed countries and other developing countries, developing countries, especially the least developed countries, African nations, and Small Island developing states, were offered a significant increase in scholarships by the year 2020. Scholarships awarded to students from developing countries by industrialised nations should be created to strengthen the capabilities of the developing country. It is important to recognise the value of scholarships, and donor countries are urged to improve other types of aid for education. Scholarships are to be explicitly aimed to young people from disadvantaged circumstances, according to the SDG4-Education 2030, which emphasises equity, inclusivity, and excellence.

3. **Teachers and educators** - All of the SDG4 targets can be attained with the help of teachers. It needs to be addressed right now since, particularly in underserved areas, there is a scarcity and unequal distribution of properly trained teachers, which exacerbates the equity gap in education. Systems that are properly regulated, well-resourced, and efficient should support A crucial requirement for ensuring the quality of education is that instructors are empowered, properly recruited and compensated, motivated, and professionally qualified. By 2030, there should be a significant increase in the number of trained teachers available, including through international collaboration for teacher training in Small Island developing States, particularly least developed nations and developing nations.

RELATIONSHIP BETWEEN NEP2020 AND SDG

In terms of much-needed changes in education, the NEP has accomplished a lot. Numerous calls to action have been made in the area of education since the Kasturirangan committee's Draft Education Policy was first introduced in 2019, particularly during the current COVID 19 paradigm shift.

The pre-school years are now the emphasis of the policy, which brings about significant improvements in education and near the beginning childhood care. The policy, which is well-packaged with changes to school curricula and pedagogy, also takes attaining foundational reading and numeracy into consideration. The strategy calls for considerable changes in multilingualism and the importance of language, taking into account the social factors that affect education. India's higher education system used to be fairly inflexible, but the NEP offers several exit points that will assist students better communicate their educational level and employment readiness, enabling India to take advantage of its demographic dividend. The following list includes the SDG 4 on Quality Education and the indicators, where the policy reforms cross paths with them.

SDG 4.2 Equal Access to Quality Pre-Primary Education -The 3-6 year old age group receives particular attention under the NEP, which is crucial. This was a significant flaw in the 2008 Right to Education Act. The forerunners of Anganwadi learning will receive much-needed support under this project. Additionally, the creation of a separate Gender Inclusion Fund with funding for education and support for students with disabilities are proactive.

SDG 4.3 Equal Access to Affordable Technical and Vocational Education- Under the NEP, technical skills like vocational education will be available at a younger age and coding would start in the sixth standard. A National Education Technology Forum is also being established by MHRD to address challenges relating to knowledge sharing, technology and capacity building.

SDG 4.4 Increase the number of people with relevant skills for financial success - The 10+ 2 model of curriculum design in school education and higher education has been replaced with the 5+3+3+4 model under NEP. This change will improve outcomes because the benchmarks are more clearly stated. There are numerous options for leaving higher education and this approach is used in the majority of industrialised nations to improve individuals' individual abilities. The transferable academic credits that can be used to complete a final degree have been preserved digitally. The NEP seeks to achieve a gross enrollment ratio for higher education that is at 50% by 2035 in order to make sure that the most of the population, who are under 35 years of age, have a strong skill base.

SDG 4.5 Eliminate Discrimination in Education - By creating a new unit that deals with Internet-based e-learning, Digital learning, infrastructure, and capacity building, it is recommended that the Digital Divide be closed under NEP. The strategy attempts to get around the infrastructural restrictions connected to internet bandwidth and electrical supply that have become obstacles to overcome under the new educational paradigm of online classrooms.

SDG 4.6 Universal literacy and numeracy - A National Foundation of Numeracy and Reading will be established under the NEP to give fundamental literacy and numeracy abilities by the third grade. In India, the enrollment rate for children aged 6 has been 96% since 2010. However, the dropout rate is also fairly high. With education being a shared topic between the states and the centre as outlined by the country's Constitution, this strategy will both aspire to bring and undoubtedly be a challenge to enable reforms in India. The states would attempt to be proactive in contextualising the NEP's recommendations given the initiative and space for public voice provided by the NEP. All parties involved should read this text as a source of inspiration during these trying times. In addition, they should fully embrace all of its principles and wish to use it as advice to schools and universities.

CONCLUSION

The Sustainable Development Goals (SDGs), substantially reflect the development agenda of India, as Prime Minister himself noted in his speech at the United Nations Sustainable Development Summit in September 2015 and are very much an important part of the country's longstanding heritage and tradition. Our Prime minister has quoted, "The Sustainable Development Goals broadly reflect India's development agenda. Our country's plans are aspirational and focused; One-sixth of humanity's sustainable development will have a significant impact on the beautiful planet and world." The new National Education Policy (NEP) 2020 is indeed a good policy as it aims at making the education system holistic, flexible, multidisciplinary, aligned to the needs of the 21st century and the 2030 Sustainable Development Goals (NEP2020 Ministry of Human Resource Development, Govt. of India).

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ROLE OF ARTIFICIAL INTELLIGENCE IN NATIONAL EDUCATION POLICY 2020

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ABSTRACT
In July 2020, the National Education Policy 2020 was unveiled, and it includes promising aspects for digital education. The policy has emphasized the symbiotic relationship between technology and education in keeping with the nation's objective of becoming a "Digital India." The National Education Policy 2020 incorporates all the elements, with a strong emphasis on artificial intelligence. Both the educational curriculum and research fields must incorporate AI. The creation of an academic bank of credits to digitally record the academic credits earned by students from various universities has also been recommended by NEP 2020. As a result, it will be simpler for universities to grant degrees based on the credits that students have earned. According to the policy, technological advancements such as artificial intelligence will fundamentally alter how students learn in the classroom. However, further research is needed in both the technological and academic fields.

This research paper investigates the role of artificial intelligence in National Education Policy 2020. Challenges of AI implementation in National Education Policy are also explored.

Keywords: National Education Policy 2020, Artificial Intelligence, Academic Credits

INTRODUCTION
The new education policy seeks to significantly improve the educational system in order to get the next generation ready to lead original inventions and turn India into a knowledge superpower. When formulating the concepts of the new education policy, it was kept in mind that the necessity for online education was the most important requirement following the COVID-19 issue. In situations like the current pandemic, where conventional forms of education fall short, it aims to provide alternate modes of high-quality education [1]. Additionally, it plans to create satellite-based TV channels, apps, online courses, and modules. In the increasingly automated and AI-driven world of technological advancements, New Education Policy (NEP) emphasizes a future generation that is technology literate.

Numerous academic institutions are now aware of how important it is to include artificial intelligence into their curriculum. The NEP 2020 emphasizes the requirement to implant modern technologies such as AI and analytics, which are predicated on logical reasoning, critical reasoning, and problem-solving abilities [W 1.1]

The establishment of NEAT (National Education Alliance for Technology), an autonomous body with the mission of promoting technology advancements to improve online learning, examinations, administration, and planning, has been suggested by National Education Policy 2020. Artificial intelligence based features in NEP 2020 are listed below [2]:

- **AI in Curriculum**

NEP 2020 suggests introducing machine learning and artificial intelligence education to students at all levels as soon as possible.

- **Experiential Learning**

The new structure promote experiential learning including hands on training. Instead of rote learning, the emphasis would be on essential learning goals.

- **Educational Softwares for Learning**

According to the policy, educational software would be developed using AI-based technology and made available to teachers and students in all local languages. These courses will be widely accessible and beneficial to students, even those who attend school in extremely rural areas or have special needs.

- **Smart Classrooms**

The National Education Policy 2020 states that the use of AI technology will aid in the development of smart classrooms that will allow for online interactions and collaborations amongst students from various schools across the world.

- **National Teachers Portal**

All of the digital content created by all state boards, CBSE, NCERT, ICSE, ISC, and other organizations will be available on the National Teacher's Portal, a digital platform. Also, there will also be content for teachers' professional development.

Fig (1) summarizes features of Artificial Intelligence in NEP 2020.

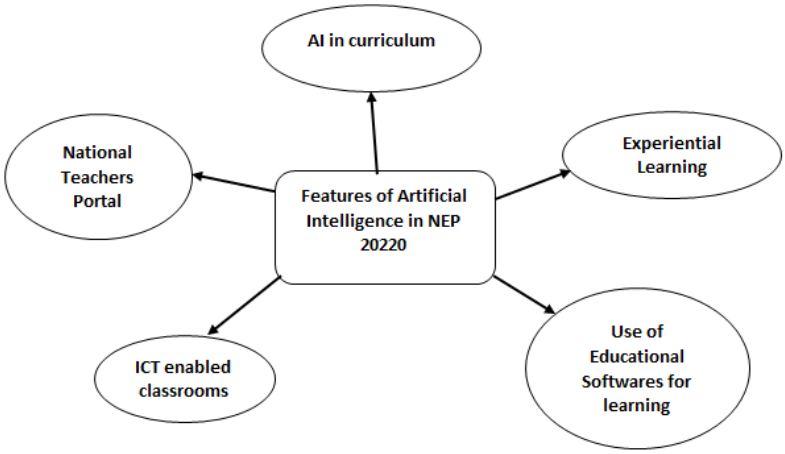

Fig. (1): Features of Artificial Intelligence in NEP 2020.

Challenges of Ai Implementation in National Education Policy

There are a variety of strategies for organizing and planning the application of AI techniques in the field of education, but discussion over the significant issues for decision-makers is still going on. The following is a list of potential issues that may impact the adoption of intelligent technologies [W 2, W 3].

- **Forming a thorough understanding of Public Policy about AI for Sustainable Development**

The complicated technological requirements for advancement in this subject require the coordination of many institutions and factors. To build an AI ecosystem that supports sustainable growth, national and international public policy must cooperate.

- **Securing Equity and Inclusion for AI in Education**

With the development of AI, the least developed countries run the risk of experiencing new technological, economic, and social gaps. To create the fundamental circumstances for putting innovative strategies that make use of AI to enhance learning into action, some major challenges including the fundamental technological infrastructure must be overcome.

- **Educating Teachers to use AI in the Classroom**

To apply AI in the educational filed, teachers must acquire new digital abilities.

- **Enhancing Research on AI in Education**

It is reasonable to predict an increase in research on AI in education in the coming years, it is still important to remember the challenges the education sector has faced in applying effective educational research for both training and policy-making.

- **Creating Inclusive and High-Quality Data Systems**

This should be a top priority if education is going to become more data-driven in the future. To enhance data collecting and systematization, state capabilities must be built. The growth of AI should provide a chance to elevate the role of data in managing the educational system.

- **Searching of Funding**

In order to develop academic and research facilities for the formation and training of AI specialists, it is essential to identify new funding opportunities

CONCLUSION

The Indian educational system is becoming more and more aware of the value of skill-based education and the necessity of educating the next generation using artificial intelligence, machine learning, and analytics. The NEP 2020 emphasizes the importance of making the educational system comprehensive, adaptable, and in accordance with the needs of 21st-century learning. But in order to achieve all of these objectives, we must consistently and long-term overcome all execution challenges. According to the National Education Policy, technological advancements such as artificial intelligence will fundamentally alter how students learn in the classroom. However, further research is needed in both the technological and academic fields.

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DIGITAL EDUCATION: TECHNOLOGIES AND TOOLS USED IN ONLINE EDUCATION FOR ASSESSMENT AND EXAMINATION TO ACHIEVE THE AIM OF NEP 2020

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ABSTRACT

The Union Cabinet's approval of National Education Policy 2020 indicates that the country now has a new education policy after 34 years. Technology integration is a major priority of the NEP 2020 since it may play a crucial role in promoting holistic development. Use of technology is an important part of digital and online education. With the help of digitization we can fight any disaster like Covid-19. Online educational platforms and tools played a very important role during the pandemic. This is possible only because of the internet, new technologies and tools available.

This paper will focus on use of technologies for digital and online education in India. And tools to evaluate the students in online examinations. Main focus on Google forms as a assessment tool with third party add-ons.

Keywords: NEP 2020, Digital education, Online platforms, Assessment tools, Google forms, COPPA/ FERPA

INTRODUCTION

New education Policy 2020 i. e NEP 2020 include three main parts:

I. School education

II. II. Higher education

III. Other Key area of Focus and

IV. Making it happen.

In part III there is 2 important topics given as A) Technology Use and Integration for education B) Online and Digital Education: Ensuring Equitable Use of Technology.

The main goals of using technical tools will be to strengthen educational access, support teacher preparation and professional development, and improve teaching-learning and evaluation processes. Additionally, they will work to simplify admissions, attendance, evaluation, and other administrative processes related to planning, managing, and administering educational programmes. To develop e-content for all classes of different boards like CBSE, ICSC etc. and give open and free access to that content on platforms like SWAYAM and DIKSHA.

NEP gives the focus on technologies like Artificial Intelligence, Virtual reality Block chain etc.

Online and Digital Education: Ensuring Equitable Use of Technology

The objective of the study is to develop the students' creativity and providing them with the skills to explore and create are the goals. The implementation of technology in the classroom can successfully accomplish this. The policy intends to improve learning outcomes. initiatives such as Online assessment and examinations.

E-Learning Platforms Available In India

Following are platforms provided by Government of India under the Digital India programme:

- Shagun online junction providing 3 platforms for school Diksha, e-pathasala, NROER (National Repository of Open Educational Resources).

- SWAYAM- This portal is connected with various national coordinators.
- Swayam Prabha- It is a collection of 32 DTH channels for students which run 24x7.
- NAD- National Academic Depository- Run by UGC
- E-Yantra for Robotics education and NIOS (National Institute of Open Schooling)
- FOSSEE (open source software for education),
- Virtual labs- Key initiative of MHRD and spoken learning programmes.
- Most of these online platforms are run by the National Council of Education Research and Training (NCERT), an autonomous organisation of the ministry of HRD.

NEP 2020 is focusing on online platforms SWAYAM and DIKSHA

Use of following Technologies will be more benefited according to NEP 2020
Artificial intelligence, adaptive computer testing machine learning, , smart boards, handheld computing devices, block chains and other different kinds of learning technology and software will not only change what students learn in the classroom but also how they learn, necessitating extensive research in these and other related fields on both technological and educational fronts.

Adapting to Artificial Intelligence
Artificial intelligence has already been utilised in education, notably in a few tools and assessment applications that aid in skill development. Artificial intelligence can improve productivity, customise services, and simplify administrative procedures so that teachers have more time and opportunity to impart knowledge and flexibility. In the development of artificial intelligence, teachers and machines will collaborate to the greatest of their ability, benefiting pupils. The Policy highlights the necessity to adapt changes brought on by the excessive usage of AI across industries while acknowledging the risks posed by its broad use.

After receiving periodic studies from the NETF, which will categorise emerging technologies according to their capabilities and anticipated timing for disruption, the Education Ministry will officially determine the most important technologies. The Policy is leading the way in identifying the need to increase awareness and carry out study on a number of aspects of the new disruptive technologies, including issues about data handling and security.

Machine Learning: Teaching, learning, and research are all being radically altered by machine learning (ML), which is transforming education. ML is being used by teachers to identify challenging children earlier and take appropriate action to increase achievement and engagement. To make fresh discoveries and get new insights, researchers are expediting their research with ML. The impact and consumption of online learning materials are expanding as a result of localization, transcription, text-to-speech, and personalization. AWS is collaborating with leaders in the public sector to adapt to the new ML environment and better provide kids with the information and abilities they need to succeed.

Blockchain: The current learning certification system is subject to a variety of difficulties due to academic fraud and dishonesty. In order to protect universities and students, a transparent, shared database based on trust should be created. Here, academic and learning fraud may be effectively prevented by blockchain technology, and the safety can be maintained so that the certificate is universally accepted by institutions and employers throughout the globe. By digitally keeping student certificates and degrees, blockchain technology—despite being a growing field reduce paper and printing expenses and avoid legal costs that arise in the previous methods due to missing or damaged documentation.

Smartboard Technology in the Classroom: Using classroom smart boards, students and teachers can access a range of online educational resources, including videos, texts, images, and software. This makes it possible for the instructor to use both audio and visual assistance to explain the subject to the class.

Smart technology like interactive whiteboards is the perfect solution for schools that struggle to keep pupils engaged or link them to course topics. Students can use the tools they are comfortable with and recognize in the classroom using a smart board. It encourages participation in the class and facilitates interaction. Students can then see how the technology they utilise relates to the academic books they are learning.

Handheld Computing Devices

Small, portable machines known as handheld computers are thought of as "on-the-go" computers. They are less expensive, have less memory to hold documents and files, and are more smaller and simpler to move. On the other side, a sudden reversal in the pendulum is caused by the shift to handheld platforms combined with the shift toward cloud services. These portable devices can offer the same assurance that has made browsers so popular with users thanks to their portability. Typically, they can retrieve wireless Internet signals and be used to browse the web, check email, and send new emails. They can also function as a word processor, graphing calculator, and other tools. With the emergence of modern mobile handheld devices, classroom functionality has expanded.

Students can use the handheld computers without an on-site expert present. Students always have access to handheld devices, which makes it simple to connect, interact, and study. Because they are portable learning tools, handheld devices are popular among academics and students.

ONLINE ASSESSMENT TOOLS

Assessment: In order to improve the general standard of teaching and learning in higher education, assessment is a key component. What and how students learn mainly relies on how they imagine they will be evaluated (Biggs & Tang, 2007). All evaluations result in certain degree of learning outcomes, but facilitating the appropriate learning is a key difficulty. In order to shape the efficacy of student performance, it is essential that assessment techniques are created to communicate to students the proper messages about what they should learn and how they should learn it.

From a student's viewpoint, the connection between teaching and evaluation frequently comes down to a single item: a grade by McMorran, Ragupathi and Simei, 2015.

Assessment is about assessing student accomplishments and improving instruction. Assessment serves a variety of functions, such as providing feedback on learning, promoting improvement, evaluating success, promoting learning, and sustaining standards.

We need to give quality of assessment not on quantity of assessment.

To ensure that nobody is being left behind, teachers must be aware of how effectively their students are absorbing the material. At the end of each quarter, term, and semester, you must evaluate each student and assign a final mark that takes into account both their level of understanding and effort.

In order for remote learning to work, teachers must have access to online assessment tools. You must constantly be aware of what your learners are understanding. You can modify your classes to specifically address their learning gaps if you have a handle on them.

More than 30 assessment tools are available in the market. Some of them are Google Forms, Google classroom question tools, Gimkit, socrative, Jamboard, Kahoot, Mote, Mentimeter, poll everywhere, padlet, Pear Deck etc.

There are two types of tools available

a) Formative Assessment Tools

b) Summative Assessment Tools

a) **Formative Assessment**: Quizzes, homework, class test, and group discussions are all examples of formative assessment methods that teachers use to monitor and direct (or mould) their students' learning. That works both ways because teachers frequently build their lesson ideas and lectures on the responses provided by their students through formative assessment methods.

b) **Summative Assessment Tools**: The final essays and exams that are provided at the conclusion of a project, course, semester, unit, programme, or academic year are known as summative assessment tools. These are used by teachers to assess student learning by contrasting performance against a standard. These tests have a high point value and are very important. Midterms, term papers, and Internal evaluation tests are a few examples.

Qualities of good Assessment Tools

1. Are important abilities assessed with high fidelity?
2. Are relevant to students' educational experiences and contextualised.
3. Appreciate the breadth or extent of content coverage
4. Are realistic, effective, and economical
5. higher-order cognitive capabilities
6. Create a rationale for using and interpreting test results.
7. Are fair and unbiased
8. Is broadly applicable and transferrable, at least within an area of themes
9. Make sure the content quality is in line with the most up-to-date knowledge in the industry.

Advantages/Benefits of Online Assessment

- Cost effective
- Providing instant feedback
- Providing students with several chances to practise grasping the possibility of multiple attempts at online tests or assignments
- Reduce administrative workload
- Helps in storing and reusing of assignment and test
- Question shuffling facility
- Faster at marking and releasing results.
- Authoring Collective Questions.
- Test assembly tools that are automated.
- Provides tools for on-screen marking

- **Environmentally Friendly.**
- Scalable with Worldwide Reach
- **Increased Security.**
- The freedom to take tests anywhere
- Quick evaluation reporting.
- Assessments that are Open to Everyone

Use of Google form in Assessment and Examinations

Google's free, web-based Google Docs Editors suite comes with a survey management tool called Google Forms. Google Docs, Google Sheets, Google Slides, Google Drawings, Google Sites, and Google Keep are also included in the service. Google Forms is available only in the form of web application. The application facilitate users to collaborate in real-time with other users while creating and editing surveys online. A spreadsheet can be automatically updated with the information gathered.

A Google workspace providing tool for building forms for collecting data is called Google Forms. Both students and educators can use Google Forms to make surveys, tests, assignment feedback forms, and event registration forms. Participants can be given access to the web-based form by sending them a link, an email, or by embedding it in a blog post and web page. The data collected via the form is often saved in a spreadsheet. Although there are other online survey applications on the market, Google Forms is a fantastic free choice.

Create Google Form: To create Google form just need to log-in into gmail account. Open Google drive and use option new to create google form. There are three options: we can select a blank form, blank quiz or Form template. When we use templates different options are available. Templates providing ready to use forms, just need to edit as per requirement.

When we selecting blank forms, untitled blank form will display in front of you.Here we can add questions and answers depending on requirement.

In Google form we can add images, videos and video link in question.

Question

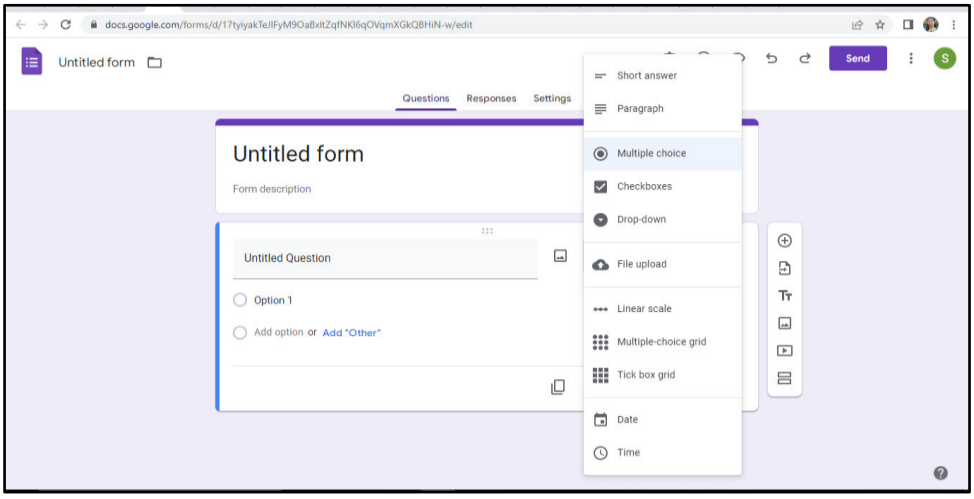
We can add questions as per assessment type. Google form provides facility to use images, drawing as a question. After that need to set answer type. Following types available.

Answer types-Short answers, Paragraph, Multiple types, Checkboxes, Drop down, File upload, linear scale, multiple choice grid, Tick to grid, Date, Time etc.

Here is an option to add an answer key. You can set correct answers, point value and feedback also.

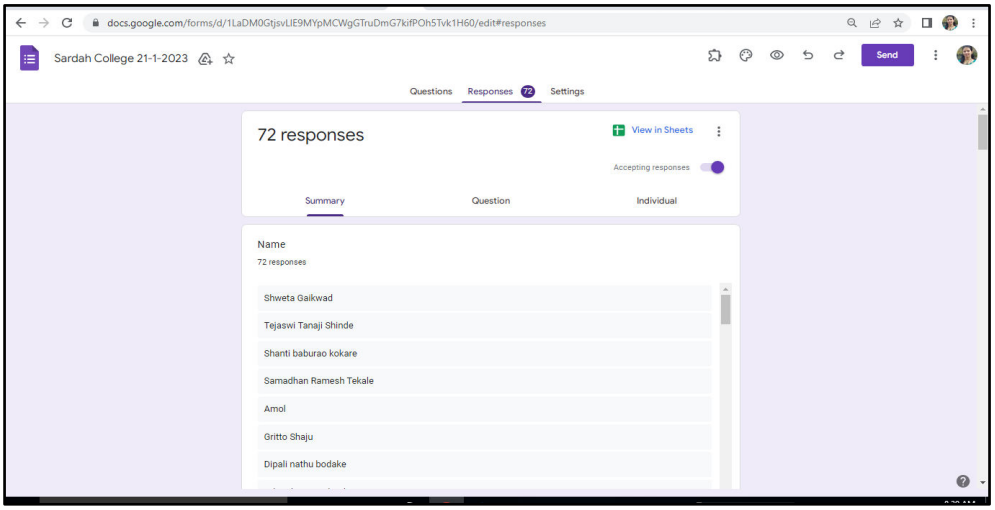
We can create a copy of the question by using the option available. You can make questions compulsory and apply settings like Description, Data validations-Apply Validation Options to Control Data Entry, Question shuffling.

We can import questions from available forms. We can add images, videos, and sections by using options available.



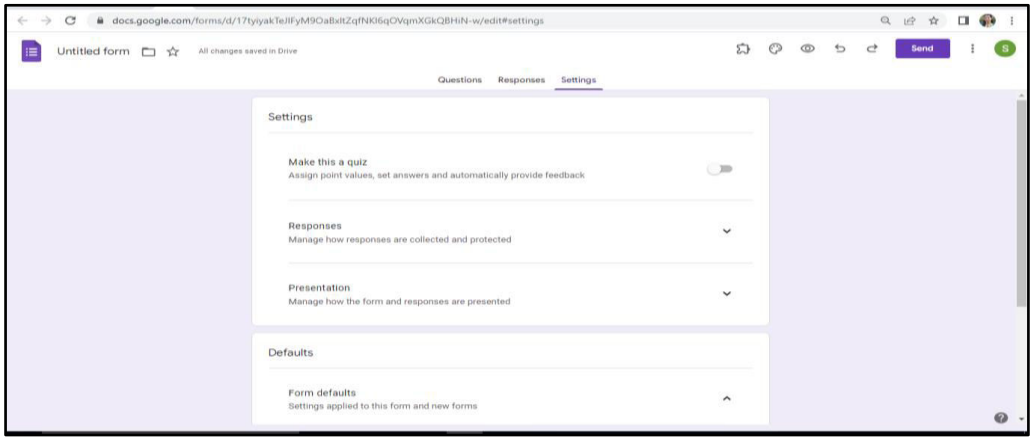
Responses: Under the responses we can create a spreadsheet of recorded responses. Here we can turn on or off the Accepting responses radio button.

Main three tabs here is Summary: Which will display summary of recorded responses in details with graphs. Second option question will display question wise recorded responses. Third option will display an individual summary of recorded responses. When we are selecting the answer type as SHort answers or Paragraph we need to use an individual option to check responses manually.



Settings: In settings we can change settings to make a form as a Test/ Quiz for assessment. There are separate settings for releasing marks, for immediate release or after manual review. Here we can change respondent settings also to change settings as missed questions, correct answers and point value. Responses settings available, it includes collecting email address, sent copy to respondent, limit of responses etc.

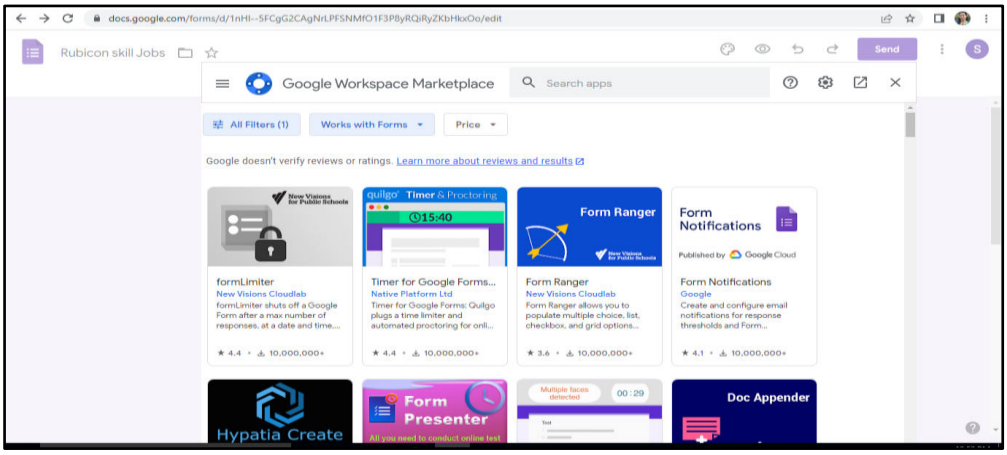
Presentation settings about how form and responses are presented. Here option available for question shuffling, confirmation message after submission, restriction option is also available here.



Google forms Add-on

We can extend the functionalities of Google form by using the third party plug in (Add-ons).

To add an add-on you only need to open Google Forms, click the three vertical dots for more options, click Add-on, choose the desired Add-on, and then install it. After installation, there will be a puzzle shape icon; simply click on it to view a list of installed add-ons. Google forms providing 100+ add-ons for different types of functionality.



For assessment we can use add-ons like:Quilgo timer -: Quilgo enables clock countdown tracking for your test, camera recording and cheating prevention tools for your Google Forms, it shows you how many times participants focus on Quilgo transforms Google Forms into tests and assessments for online skills.

Form Limiter- For accepting responses within given time and limited responses,

Assessment tracker - To track assessments and get assessment data.

Form Presenter+Timer -Form presenter is used to conduct online assessments of the participants, quiz, class test & exams with time bound, action and presentation controls for your Google Forms. "Form Presenter" is an important add-on to present your Google Form with time, audience, action, presentation controls with friendly user experience (UX).

Choice eliminator: To select choice, it will help in creating schedules.

Development of Add-ons: Add-ons can be used to enhance Google Forms so that users can create new surveys, link to external applications, and combine Forms data with other Google Workspace products (like Google Sheets).

Types of add-ons: There are two types of add-ons you can build with Apps Script: Google Workspace Add-ons and Editor Add-ons.

With a Google Forms extension, you can achieve the following things
Using the interconnected Apps Script Forms service, Google Forms may be created, accessed, and edited. We can evaluate the Google Sheets where form response are saved using the Worksheet service.

The Forms service's Forms service allows you to modify form functionality from an add-on. You can check, for instance, if the form is accepting responses or if it is sending confirmation messages to users.

Using conventional HTML and CSS, you may construct a variety of custom dialogues, sidebars, and menus. The Google Forms editor is extended by these user interface elements, not the form that respondents see.

When specific triggering events take place, you can utilise add-on triggers to activate predefined routines

Triggers :Apps Script triggers let a script project execute a specified function when certain conditions are met, such as when a form is submitted or when an add-on is installed.

Test an Add-on; To make sure they function as planned, add-ons should undergo extensive testing before being released. You can use Apps Script to test Editor Add-ons on particular Google Docs Sheets, Forms, or Slides files. This may be utilised for check that a stanlone script-written add-on performs as anticipated whether used with a worksheet, doc, presentation, or form. Make sure the add-on installation process functions as intended, especially for various initial authorisation lifecycle phases (i. installed, ii. enabled, iii.or both).

When using an add-on to alter a specific document or its contents, make sure it works as intended. Test and contrast the add-ons recent and earlier iterations. Determine that your add-on is finalized and you completed work.

Publish add-ons: When you publish your add-on, you make it available for others to find, install, and use.

Upgrade existing Add-ons: Google provides facility to upgrade existing add-ons and release new versions of the same.

COPPA/ FERPA used in Google forms
The Children's Online Privacy Protection Act of 1998 (COPPA) is a U.S. regulation applicable to the collection of personal information from children under the age of 13.

Core Services for Google Workspace for Education can be used while adhering to the Children's Online Privacy Protection Act (COPPA). Schools using Google Workspace for Education are obligated by contract to comply with COPPA's parental consent requirements.. Google services can be used in compliance with COPPA as long as a school has parental consent.

The Family Educational Rights and Privacy Act (FERPA), 20 U.S.C. 1232g; 34 CFR Part 99, protects student educational records. Any school with specific programmes supported by the U.S. Department of Education is subject to this federal statute.

Google Workspace for Education is used by more than 140 million teachers and students worldwide. Our agreements contain a commitment to FERPA compliance, which allows Google Workspace for Education to be utilised legally.

CONCLUSION

The importance of assessment in the learning process cannot be emphasised. It is the procedure for gathering and analysing data in order to assess the success of student learning objectives. Teachers are capable of conducting transparent assessment using cutting-edge methods. Various tools for interactive online evaluation are available. How to utilise Google Forms to evaluate students successfully. Utilizing several Google Form add-ons to increase capability for student assessment. This essay also offers teachers tips on how to stop students from sharing quizzes. Stop stealing answers during online tests.Google form provides security and supports COPPA and FERPA.

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CHALLENGES AND OPPORTUNITIES OF IMPLEMENTATION OF MULTIDISCIPLINARY EDUCATION IN CHEMISTRY

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ABSTRACT
The curriculum offered in higher education institutions may concentrate on teaching material pertaining to a single field for some traditionally, professionally, or technically oriented careers. Contrarily, multimodal, multidisciplinary fosters critical thinking and enhances affective and cognitive learning, giving students the chance to build a solid general knowledge foundation. The field of chemistry is one that straddles the science, technology, engineering, math, and medicine continuum. The importance of chemistry in the real world in terms of individual, organizational, national, and international contexts is discussed in this article, along with the enormous potential for its integration into multidisciplinary activities in higher education. It describes the difficulties in developing and implementing legacy higher education infrastructures that require imaginative visionary leadership with strong and helpful management and administrative functions, as well as the need for curriculum design that promotes inclusivity and collaboration and is pitched and balanced appropriately. Future prospects are discussed at the end, particularly how millions of people worldwide are employed by industries with billions of dollars annual sales that are supported by the discipline of chemistry.

Keywords: Multidisciplinary education, Higher Education, Chemistry Field

INTRODUCTION
One may say that education is a component of the continuing change, which includes both possibilities and difficulties. It is challenging to correctly benchmark performance and track progress toward national and international goals because of the structural and content differences among national education systems. In the absence of real student participation, teaching chemistry can degenerate into the dry recitation of chemical facts. It is required of a new undergraduate student to adjust rapidly to the formality of lectures, the size of the class, and the prerequisite coursework. This should provide an opportunity to connect chemistry-based material to other scientific fields, but in practice, implementing translational teaching approaches in a lecture-heavy course with a mixed-ability and scientific background is difficult. Due to the undergraduate curriculum's heavy emphasis on written evaluation, many students were unprepared when oral assessments were introduced later on. This negative experience had a negative impact on degree performance. To overcome this issue it needs to implement a multidisciplinary approach in chemistry. The various goals included actively encouraging group learning, information gathering, analysis, and multilayer presenting and communication abilities also to draw attention to many components of the multidisciplinary approach to teacher education. The transition from a teacher-centered classroom to a learner/student-centered classroom, which emphasizes the instructor as the "facilitator" and may combine some activities with other topics, fosters collaboration and creativity in multidisciplinary education.

In a multidisciplinary approach, students from different disciplines can work together by each utilizing their specialized knowledge. To use this method to improve and expand classroom learning, teachers must have nearly all necessary skills and knowledge. Students from various disciplines can collaborate by each using their specialized knowledge in a multidisciplinary approach. Since chemistry is the fundamental or central science, it is particularly connected to the discoveries made in other branches of knowledge and calls for an appropriately

multidisciplinary approach to experimentation and learning. A multidisciplinary approach in chemistry will be beneficial to encourage creativity and improve critical thinking. Chemistry students should be exposed to multidisciplinary approaches to thinking about the subject. By integrating examples from biology and medicine to illustrate how chemical principles are applied in other fields, the effort gave students the knowledge and abilities they needed to tackle multidisciplinary challenges without "sacrificing" the course's core chemistry subject. Supramolecular interactions in biological processes (such as protein assembly, gene expression, etc.), which could be covered in molecular biology and biochemistry curricula, are examples that emphasize the significance of the awareness of the underlying chemical principles in other disciplines. The last few decades have seen revolutionary changes in computer technology and software, which have transformed our understanding of chemistry and created new subfields that may now be included in curricula around the world. Students' improved computer and technology literacy is lowering obstacles to understanding computational chemistry and how to apply it to other disciplines. Some curricula offered in higher education institutions around the world place an emphasis on monodisciplinary or interdisciplinary instruction, allowing learners/students to show a breadth of knowledge and expertise in practice following course completion. This essay's goals are to provide a precise definition of multidisciplinary education or multidisciplinary approach in education and to examine the various facets of this method.

OPPORTUNITIES OF IMPLEMENTATION MULTIDISCIPLINARY EDUCATION IN CHEMISTRY

Knowing various educational approaches, such as interdisciplinary and trans-disciplinary, is important in order to understand the fundamentals of multidisciplinary education. The process of integrating the knowledge of two distinct fields into a student's learning is known as an interdisciplinary approach and Trans-disciplinary curricula are a way of breaking down the barriers between disciplines and combining them to develop new, comprehensive bodies of knowledge that may be used to address the needs of the emerging societal phenomenon. When we discuss the topic of teacher education, the multidisciplinary approach is still a relatively new idea. In order to use this new method of teaching and learning, educators must first be mature enough to do it. This innovative teaching strategy can readily be developed by new teachers in training, who also have plenty of chances to impress students and broaden their range of knowledge and experiences. Training future professionals in innovative procedures and approaches as well as how to approach these kinds of problems from a multidisciplinary standpoint may raise the likelihood that they will come up with solutions that have a higher probability of being successful. The current need in teacher education is for a multidisciplinary approach. From an Indian viewpoint, this strategy is hardly brand-new. The country's ancient gurukul educational system, used at various times, served as the best example of multidisciplinary education. As chemistry includes various branches like science, technology, engineering, biochemistry, medicinal chemistry, life science, and microbiology, it is necessary to provide a multidisciplinary curriculum to chemistry students. Many authors have claimed that students who take part in interdisciplinary or integrated curricula perform as well as or better than students in a traditional program, according to more than 200 studies that have been conducted to evaluate the effectiveness of the various forms of integrative curriculum and instruction. Implementation of multidisciplinary education in chemistry includes experiential learning, project-based learning, learning based on the analysis of some ingredients, practical demonstration of important theory concepts, and some computer-based applications because computer-based applications are useful to draw reactions. The advantages and opportunities of multidisciplinary subjects or curricula for chemistry students can improve learning, understanding, and improved ability to apply knowledge and engage in imaginative big-picture thinking; to develop one's reading, writing, and math skills; and to advance one's own development, self-confidence, motivation, and civic engagement. Some curricula offered in

higher education institutions around the world place an emphasis on monodisciplinary or interdisciplinary instruction, allowing learners/students to show a breadth of knowledge and expertise in practice following course completion. A multidisciplinary teaching approach will increase the ability of students to obtain a broad general knowledge base. Some firms like such broadly based curricula because they show that job candidates are well-rounded and capable of adapting to the changing workplace. A student who is pursuing a higher education credential must complete formal teaching components in a college or affiliated industry partner workplace, such as a lab or plant, in order to be given the degree. According to educational research, multidisciplinary fosters significant learning by exposing students to learning opportunities in the classroom that allow them to hone a variety of employability-related skills, such as communication, numeracy, project and time management, IT literacy, and technical and scientific knowledge. Through the acquisition and understanding of knowledge and concepts, multidisciplinary education enables students to improve their fundamental grasp of a variety of topics. Additionally, it gives students the chance to combine concepts and methods from many academic fields, to integrate their knowledge base, and—perhaps most importantly—to learn how to learn, fostering an understanding of metacognition. Students can also learn when and how to use specific abilities. As a result of the diverse backgrounds, experiences, interests, and skills of the staff and students involved in multidisciplinary environments, multidisciplinary education in chemistry promotes student engagement and, as a result, learning by providing students with a variety of learning experiences and assessment strategies that reflect the diversity of individual learning styles. In addition, multidisciplinary curricula give students the chance to collaborate in teams on interdisciplinary, transdisciplinary, and multidisciplinary projects. These projects include problem-based and research-based learning exercises, which are crucial for many real-world applications of multidisciplinary and other disciplines, such as the development of chemicals, such as natural or synthetic drugs and/or polymers, for technical applications, such as computing, building, engineering, textiles, and for medical fields. Through the prism of Maslow's hierarchy of needs, the requirement of working in multidisciplinary groups including chemistry to address complicated challenges found in real-world situations may also be seen. The industries that supply people with sustainable resources to meet our needs for food, rest, water, and warmth involve chemistry at the interface of other disciplines such as physics, biology, engineering, etc. Problems connected to our physiological demands involve chemistry. Multidisciplinary organizations working on medications, personal protective equipment for use in clinics, laboratories, warfare, and, or counterterrorism are tackling issues relating to human demands for safety and security. These issues also involve quantum technology e.g. communication, sensors, etc.

The "Chemistry Connections Challenge" is a fascinating illustration of a fun learning activity that emphasizes real-world applications of basic organic chemistry through a combination of lecture material from the instructor and self-directed learning activities (with students submitting work on the real-world application of organic chemistry to a variety of topics including biological processes, botany, chemical warfare, cosmetics, gastronomy, materials, medical applications, natural products, pharmaceuticals. Therefore, chemistry is a crucial discipline to include in multidisciplinary activities since it can play a significant role in future multidisciplinary research when combined with other domains of knowledge. A higher education institution needs creative and imaginative leadership, supporting management, and an administration that promotes an environment for innovative curriculum creation in order to successfully build and deliver multidisciplinary.. Additionally, computational chemistry offers a variety of platforms to study intramolecular and intermolecular interactions that can be used for research and development in a safe and affordable manner, such as guiding the selection of candidates to bind to biological targets. Students can learn about important concepts such as kinetics and thermodynamics, molecular descriptors, stereochemistry, and 3D structures using

computational chemistry in an interactive virtual learning environment. Academics have the chance to contribute to multidisciplinary activities in fields of direct interest to themselves and the students through research projects at various points throughout curricula, especially capstone projects that is student-centered learning, which helps students direct their learning of course material toward an outcome that is directly relevant to them. Multidisciplinary education can improve the overall knowledge of student which will be useful to solve the various problem in their work area. This strategy aids pupils in using their mental faculties and reaching the right conclusions. It fosters the blending and adjusting of diverse ideas among people and enriches them through critical analysis. The multidisciplinary approach to teaching promotes a more comprehensive view of the world and accelerates the development of students' personalities and moral character. Through this form of instruction, students will be exposed to the uncommon and essential societal values and ethics.

CHALLENGES IN THE IMPLEMENTATION OF MULTIDISCIPLINARY EDUCATION IN CHEMISTRY

Innovation is not just about technology or technical fixes for commercial, market-based, or sector-based issues. Innovation is the process of finding creative solutions to difficult problems by approaching them from the corporate, technological, and human viewpoints. Every discipline engaged in the innovation process is vital, and to create solutions that have a better chance of succeeding in every field, one must have a thorough understanding of the technologies needed for each field. People who are multidisciplinary have the chance to develop a variety of skills that are necessary to work in these teams, including hard skills cognitive flexibility and adaptability, collaboration, communication, critical thinking, curiosity, operational, management, reporting, and writing, and soft skills emotional intelligence, empathy, leadership, and teamwork. Those with multidisciplinary experience are well suited for higher-skilled positions because someone with a broader perspective is more likely to effectively identify and prioritize both current and future problems. However, extrapolating this finding to all nations is difficult due to the complexity of job markets. Each of these frameworks is evaluated using metrics and supplementary narratives that reflect the context—geography, socioeconomics, etc.—and the efforts made to achieve the objectives of each evaluation. Combining subjects that are typically taught in distinct curricula is known as "integrative learning." Students can connect with and apply theoretical and practical knowledge and skills they have acquired in a variety of contexts (such as lecture halls, tutorials, laboratories, and possibly even in the workplace) thanks to this approach. A well-designed multidisciplinary curriculum with a variety of core courses that contain interdisciplinary and transdisciplinary ideas, methodologies, and theories enriches this approach with a problem-, question-, and theme-based integrative learning experiences. The organizational structures of universities' departments and faculties, as well as their teaching and training programs, which are frequently centered on the requirement to ensure training standards and to secure externally recognized accreditation for the program of study, are the most obvious obstacles to the development and delivery of multidisciplinary curricula. The multi-method evaluation found neither loss nor gain in discipline-specific learning, increased comprehension of the traits of problems of the twenty-first century, particularly those connected to sustainability, and enhanced student perceptions of basic calculus as being favorable. For the purpose of facilitating meta-disciplinary learning, the advantages of many disciplinary and engaged-learning efforts are widely documented.

CONCLUSION

Chemistry can act as a link between other fields of study, giving students in multidisciplinary programs the chance to develop both hard and soft abilities as well as the capacity to express ideas across these fields. Therefore, chemistry is a crucial discipline to include in multidisciplinary activities because, when combined with other fields of knowledge, it can help find multidisciplinary, interdisciplinary, and transdisciplinary solutions to the complex real-

world issues that each of the various economic sectors face. Collaboration among faculty, students, and external parties like the government and industry is necessary for the design of the curriculum. It also calls for creativity and a well-balanced approach, which means balancing disciplinary input with other topics like assessment. All of this is significant because chemistry as a subject supports the success of the world by providing businesses with graduates, enhancing the experience of graduates (as they care about the world), and providing graduates with a set of skills that support their employability. Success has also been linked to the incorporation of concentrated periods in solitary workstations, outside of the typical classrooms and labs. Due to its methodical approach through iterative divergent convergent phases and testing with users and other stakeholders, the Design Thinking approach offers effective methods to deal with ambiguity in open situations. In the modern global system, a multidisciplinary approach is highly relevant and broadens the range of employment opportunities for students both domestically and abroad. This approach strengthens the student's managerial and corporate skills and procedures while assisting them in working in a managerial capacity. They have the capacity to quickly combine ideas and concepts gathered from various sources.

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INTERNET OF THINGS IN MULTIDISCIPLINARY EDUCATION: A STUDY ON FUTURE LEARNING

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ABSTRACT
Technology will have a significant impact on education in the upcoming years. The Internet of Things (IoT) is reaffirming its critical role in the context of information and communication technologies and societal advancement. Institutions may improve learning outcomes with the use of IoT by offering more opulent learning opportunities, increasing operational effectiveness, and collecting real-time, actionable insight into student performance. The goal of this study is to determine the potential of IoT in higher education and how to increase its advantages and minimize its risks. For IoT systems and technologies to reach their full potential, further work is required. As a result, this essay presents research on how the Internet of Things has affected universities in particular.IoT has the potential to fundamentally alter the way universities operate and improve student learning across a wide range of subjects and grade levels. If leadership, staff, and students are well-prepared to ensure widespread and effective implementation, it has enormous promise for universities and other educational institutions. IoT needs to be developed, and institutions may take the lead. The discovery and development of IoT systems, devices, applications, and services can be led by academics, researchers, and students because of their unique positions in society. A number of research groups and businesses have supplied evidence about the future of IoT in higher education over the next few years, which is also provided in this paper. On the other hand, IoT poses significant difficulties for higher education.

INTRODUCTION
The Internet of Things (IoT) is transforming many facets of our daily lives. The omnipresent nature of IoT technologies sets them apart from earlier advancements and encourages the development of intelligent and autonomous solutions

Basic Components of IOT
[1]. IoT advancements are a significant strategic technology trend

[2]. The conceptual base for the new learning model was thought to be ubiquitous sensors and the capacity to connect the physical and digital worlds. The capacity to integrate sensors into any object and use Machine-to-Machine (M2M) communication to connect billions of objects/devices to the existing Internet infrastructure is the idea underlying this major paradigm change. The physical world as a whole is quickly going online. IoT is expanding swiftly and becoming a worldwide concern that inspires both enthusiasm and trepidation

[3]. There are several signs that the Internet of Things will transform various industries, including higher education, particularly universities. Universities now have the chance to take the lead in IoT technical development and innovation models, develop future IoT leaders, and handle TIPPSS threats, which stand for Trust, Identity, Privacy, Protection, Safety, and Security in relation to IoT. The Internet of Things (IoT) is a physical global network that links devices, items, and things to the Internet infrastructure in order to interact with the internal and external environments, as shown in Figure 1, and to exchange information through information sensing devices in accordance with predetermined protocols. In order to reach the goal of intelligently recognising, tracking, and managing things, IoT is enabling connectivity for everything and for anybody to be networked throughout the world anytime, anyplace utilizing any network or any service

[4]. As shown in Figure 2, it is an extension and expansion of Internet-based networks that increases communication between people (H2H), things (H2T), and other things (T2T)

[5]. As presented in Figure 2.

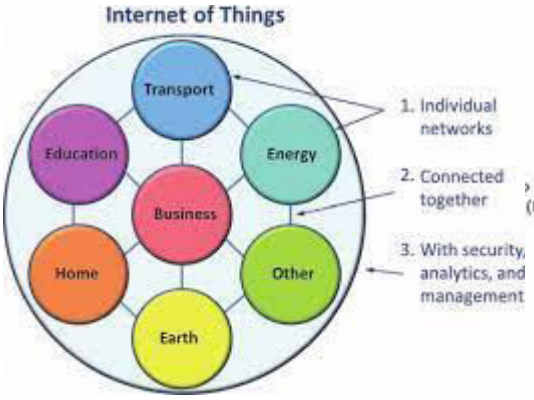

Figure.1. IoT is viewed as a global network. (***Source:*** Cisco IBSG).

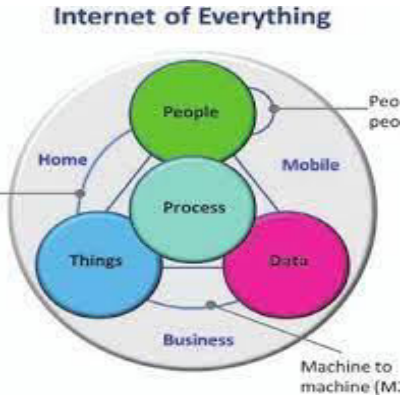

Figure.2. Internet of everything (***Source:*** Cisco).

IoT will eventually consist of billions of physical objects with digital sensors that are connected to one another via any network, according to predictions made by a number of research groups and analysts on the future of the technology and its potential effects on the Internet. According to Juniper's investigation.

[6]. More than the entire world's population was forecast to be linked in 2015 at 13.4 billion devices, and by 2022, that figure is projected to triple to 38.5 billion devices. People may access an infinite amount of information at any time and from any location thanks to the ability to engage with many everyday things that are connected to the Internet. Researchers and intellectuals are already thinking about new ideas and innovations that this vision opens up. The IoT vision is based on the conviction that the unwavering advancements in microelectronics, communications, and information technology we have seen in recent years will last into the foreseen future.

[7]. Sectors including healthcare and customer service are already utilizing IoT applications. Schools and universities are now joining the celebration. While certain applications of the IoT in education may be clear, others may be less so. Therefore, this essay will discuss the major effects of connected gadgets in higher education and how they might influence how the next generation learns. The use of current technologies is not essential for the future of higher education. It focuses on how colleges will change to meet the evolving demands of the knowledge worker of the future, the changing nature of work, and the economy. This essay examines the potential effects of IoT and the IoT future in higher education as it provides an overview of IoT in higher education institutions, particularly universities. It also looks at numerous new trends that are transforming higher education. examining some of the IoT difficulties that the higher education sector is facing.The Internet of Things (IoT) is enabling technology experts to create more power-efficient, more inexpensive, and more compact wireless systems that can be incorporated into virtually any sort of device.

[8]. Three IoT elements allow for seamless connections, and they are as follows: Sensors, actuators, and embedded communication devices comprise hardware. Tools for on-demand processing and storage for data analytics are known as middleware. and Presentation: new, simple-to-use visualization and interpretation tools that are widely available on several platforms and may be created for a variety of applications.

[9]. There are several possible methods for providing low-power communications to an IoT node, ranging from low power variations of Bluetooth, Wi-Fi, and NFC to purpose-built protocols like ZigBee. IoT improves other formats, including Radio Frequency Identification (RFID) technology, which is used throughout business, industry, and personal technology systems and allows the design of microchips for wireless data communication. Wi-Fi is the most widely used form of integrated wireless technology and has the best power-per-bit transmission efficiency.

[10]. Some of this technology can add wireless sensor capabilities (WSN) to any type of device, like FitBit wearable fitness trackers, and books

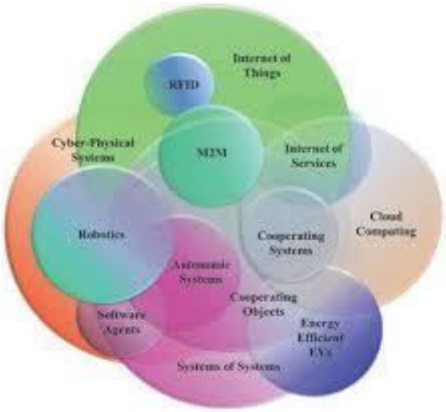

Figure 3: Technology convergence

Concept of Digital Campus

Students can access a variety of information through the Digital Campus System . Additionally, various facets of campus administration are being impacted by new technologies. Universities in particular are under increasing pressure to digitize their programmes and coursework, change how they conduct their operations, and otherwise improve the efficiency of academics and researchers working in a digital environment.

A well-designed physical campus that fully embraces technology is essential for developing the reputation of a digital university by improving the student experience and offering the right environments and resources for instruction, learning, and research. It supports, stimulates, and promotes lifelong learning. A digital university needs the technology to support collaborative research, teaching, and learning. Universities can compete against all current digital challenges, but few have the foresight, adaptability, platforms, or qualified leadership to set up the plans necessary to ensure that they can innovate or respond to market conditions. Technology can lower operating costs, enhance security, and provide tools for researchers, academics, students, and employees inside a digital campus. These advantages provide genuine value to educational initiatives, student and researcher experiences, and university operations.

There are two key parts to the digital campus. First off, it makes use of the end-to-end infrastructure of the IT Service Delivery Platform to maintain network connectivity, mobility, and security for all applications and services across the campus. Second, it has a lot of Internet of Things (IoT) apps that run on the platform system to support university staff members, make teaching possible, andActivities that promote learning and improve student experiences. IoT applications differ from traditional network applications in that they enable sensors and sensor data rather than users and user data, according to Cisco in "Digitizing Higher Education To Enhance Experiences and Improve Outcomes." The five key IoT application categories for the digital campus are building control and management, security and access control, video and

information systems, location and attendance systems, and monitoring and controlling energy. according to Figure 4:

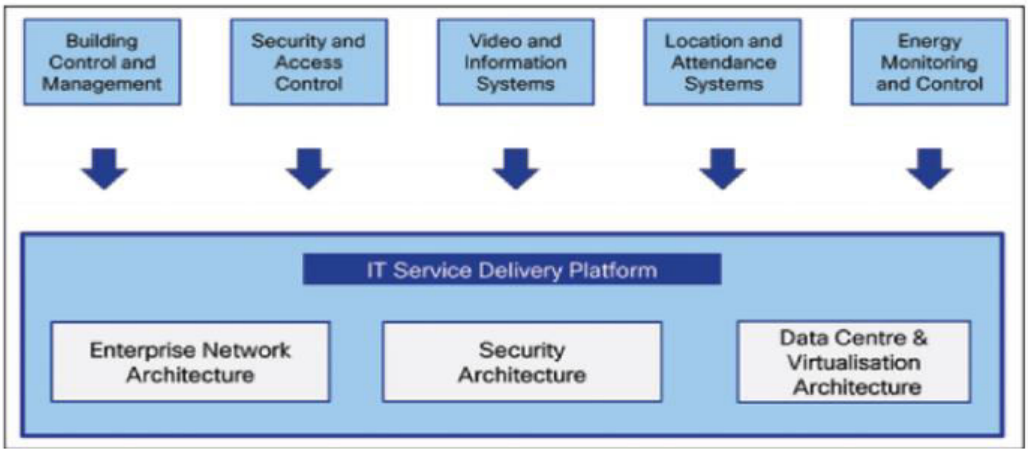

Figure 4: IoT Applications for the Digital Campus

Source: Cisco- Digitizing Higher Education To enhance experiences and improve outcomes Since the wireless network is crucial to the digital campus, it must be built to match the high standards of a contemporary university. Additionally, IoT reform and change teaching and learning on campus. For instance, IoT in the training of the same site, making the teaching space, training venues, sports venues, learning dormitories, restaurants, and students across the campus of IoT, making the campus to train students anytime and anywhere, can become a physical, mental, and skill place to acquire a full range of learning and training. Due to this, colleges will provide training and education to everyone.

Impact of Internet of Things on Higher Education

Every aspect of civilization will be impacted by the IoT at some point in the near future. Universities in particular, and higher education institutions in general, can collaborate across academic fields to advance IoT technologies, business models, ethical standards, and future IoT-enabled economic leaders. For instance, computer science and engineering professors at universities are in charge of IoT labs for the creation of IoT technology. Additionally, Informatics College can impart TIPS lessons on how to make use of the sizes of IoT data. Additionally, they might collaborate with business colleges to create IoT courses that will result in new business models. Law schools may instruct students on IoT ethics, privacy, and policy, and medical schools can enable the Internet of Medical Things.

Higher education institutions will be able to analyze and manage Big Data as they start to create and use solutions like radio frequency identification (RFID) and cloud computing through IoT technologies, claims Zebra Technologies. The Internet of Things (IoT) is not merely a technological advancement within the sector; it has the potential to affect all aspects of society, including institutions of higher learning. IoT will take the lead in transforming and reforming institutions of higher learning. IoT will drive. changes in teaching, learning, management of change, experimental and practical changes, campus changes, changes in teaching materials, and other changes in educational technology.

The three areas of the IoT's potential application in higher education are the students' ongoing evaluation, the integration of existing teaching platforms, and the creation of educational middleware. The teaching process is now more productive for professors and instructors, and it is more convenient for students.

Teachers and professors can concentrate on the actual learning that is more beneficial to the students rather than performing the mundane chore thanks to the flow of connected gadgets and technology. Additionally, by offering real-time and useful data about student performance, IoT has the potential to improve the learning experience.

Today's students, especially those in higher education, are gradually switching from textbooks to modern technology like tablets and laptops. With the aid of cutting-edge e-learning tools, students may study at their own speed and enjoy a consistent learning environment in both their homes and classrooms. This improves advancement and satisfaction rates and allows teachers to give one-on-one training and ongoing evaluations of their students.

Additionally, by using IoT technology, educators can gather information about students' performance and decide which ones require additional care. Additionally, this data analysis enables instructors to precisely modify their strategies and plans for next classes. Additionally, educators may conduct interactive exercises in the classroom using connected devices. If pupils have a wristband that monitors ECG patterns, interventions and attendance tracking will be made easier.Furthermore, by providing a warm-up exercise and workout for students to complete on their own devices, these gadgets might refocus a student's attention.

Additionally, EEG sensors can be utilized to track students' cognitive activities throughout lectures.Stakeholders can observe the pupils, organization, and financial resources thanks to this vision and comprehension. Organizations are able to make wise judgments thanks to this asset intelligence in order to improve student understanding and learning experiences, operational proficiency, and campus security.

Enhanced Learning Experiences and Outcomes, Improved Operational Efficiency, and Safer Campus Designs are just a few of the areas where educational institutions can improve results by adding values, according to Zebra Technologies (2015). In addition, institutions can use linked devices outside of the classroom to monitor their students, staff. Additionally, colleges are now better able to monitor key resources, boost access to information and applications from anywhere at any time thanks to the growth of mobile technology and the Internet of Things. By connecting people, data, and things, IoT is revolutionizing student learning in addition to facility management.

Future of IoT in Higher Education

Universities have long been aware of how technology might interfere with instruction, learning, and evaluation. Technology disruption is also essential for a modern institution to differentiate its student offer, thereby boosting admissions, enhancing retention, and achieving targeted results. But it takes a lot of work to get pupils ready for the workforce.

It calls for competent academic leadership, student exposure to cutting-edge technology, and access to a rigorous curriculum and content.Numerous institutions of higher learning have begun to concentrate on the related technologies and IoT applications as a result of the development of the IoT. This method is also applied in higher education. E-learning is now a standard practice in most university systems as a result of the Internet's entrenchment in colleges and institutions .

Education is on that list, even if it is not an obvious application of the IoT. There are many IoT applications at universities, and the implications of this are significant. IoT will enable better operational effectiveness across all learning settings. IoT can complement classroom instruction by enhancing the learning environment, learning resources, learning strategies, and management.

Challenges of IoT in Higher Education

IoT presents higher education with a wide range of opportunities and difficulties. The unique development of ubiquitous computing, emerging IoT technologies like cloud computing, big data, and analytics are beneficial for fostering a new digital culture as well as for enhancing the fundamental principles of education and research.

The IoT drives digital momentum into higher education institutions with expanding prospects for online degrees and easy access to educational content in both structured and unstructured formats. IoT represents a significant movement from the conventional paradigm of education while integrating other fields, such as social science, to increase the value of large data obtained through social media. Some IoT issues in the higher education sector include:

6.1. Cloud Computing

For hosting IoT applications, many institutions are utilizing hybrid clouds as their enterprise architecture.

The rise of tablet and mobile technology, combined with the millennial generation, who are among the most tech-savvy university students, has created new opportunities for improving corporate architecture, instructional technologies, research settings, and learning environments.

The cloud offers seamless connections and access to information technology services thanks to ubiquitous computing. Enterprise architecture currently relies on hybrid cloud infrastructures in many higher education institutions, with computing platforms on private clouds and enterprise and instructional apps gradually migrating to public clouds.

Due to the high demand for content in instructional technologies, the massive growth in the usage of audio and video for instruction, and other factors, enterprise design in these institutions needs to reduce latency time.

6.2. Instructional Technologies

Massive amounts of organized and unstructured data, including audio and video information, are being produced as a result of the expanding usage of Learning Management Systems (LMS) like Moodle and Blackboard. Students have the chance to access educational materials on demand at any time in sophisticated electronic classrooms with lecture capture systems and web broadcasting.

6.3. Mobility Applications

IoT applications are being utilized more frequently for systems of evaluation and grading as well as to incorporate mobile learning applications. The perfect application will help students take advantage of educational resources, organize their assignments, and complete activities. Some of these programmes are also used by teachers to impart highly technical knowledge, challenging physical and scientific simulations, and social themes. Security and privacy, section

6.4. Security and Privacy

IoT technology implementations provide brand-new, distinct security and privacy concerns and issues. It should be a top priority to address these difficulties and problems in order to guarantee the security of IoT products and services . Effective and reliable privacy and security methods are required as one of the core requirements for IoT. The IoT ecosystem's security and privacy risks affect higher education. Despite increased movement toward addressing IoT infrastructure security, there is still no plan in place to evaluate the business risks related to data breaches.

Standards for securing IoT applications must be developed by the higher education sector. Higher education must embrace IoT platforms and systems in order to produce millions of future workers, despite the difficulties associated with IoT funding, growing digital educational pedagogy, training, and multidisciplinary research. Additionally, as society increasingly relies

on IoT applications, IoT applications must involve the future workforce in moral and ethical discussions about cyber security challenges. Consequently, a cooperative approach to safety and security will need to provide solutions in an acceptable and effective manner to address IoT security challenges.

The IoT's full potential also hinges on policies that take into account people's privacy. Therefore, in order to take advantage of these opportunities, new approaches must be developed that take into account a person's privacy preferences and expectations while also encouraging the development of novel technologies and services.

6.5. Research Computing

Higher education continues to benefit from IoT integration. As the cost of hardware reduces, interdisciplinary research has gained momentum in the last few years. In addition, with the availability of big data, even smaller universities can increase their interdisciplinary research footprint and put in high performance computing (HPC), big data platforms, and analytics. STEM education has seen the necessity of identifying broader collaboration with IoT ecosystems by using sensor technologies, Unmanned Aerial Vehicles (UAVs) and microcontrollers. Engineering laboratories use audio video technologies, UAV, Raspberry Pi and open source systems (OSS) that are driving innovations and enhancing learning processes in engineering projects. Social science researchers intrigued by the plethora of big data generated by social media and omnipresent computing are constantly using distributed computing platforms such as HPC, GPU clusters, Hadoop clusters and big data analytics to improve IoT research.

6.6. Quality and Ethics

In recent years, there has been a lot of discussion about the quality of learning, both on-campus and online, as well as the rising price of higher education. Delivering online classes is now possible because of the Internet of Things.However, it also presents difficulties for maintaining the standard of instruction and reviewing students' work. To enhance the standard of research and solve ethical concerns in higher education, IoT educational applications require tools and technologies for teachers, professors, and the scientific community.

6.7. Financing

Each year, the price of information technology both as a content and an application rises. These application stacks on enterprise technologies, research computing, and instructional technologies keep expanding both horizontally and vertically. Most colleges lack a plan for cost sharing and calculating the total cost of ownership for an IoT infrastructure in addition to the fees for labs and information technology. To pay for IT infrastructure and services, higher education must develop fresh concepts.

CONCLUSION AND FUTURE WORK

With the development of technology, including The Internet of Things, colleges may overcome a number of difficulties, including managing vital resources, enhancing information access, generating better planning, and creating safer campuses.

IoT systems have the potential to significantly improve higher education by energizing the faculty and staff, encouraging the students, and accelerating the learning process. This study's goal was to determine the potential of IoT in higher education and how to make the most of its advantages while addressing its problems and lowering its risks. As a result, the focus of our future work will be the adoption of IoT in higher education.

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INTERDISCIPLINARY EDUCATION: A NEED OF A SCIENCE EDUCATION IN INDIA

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ABSTRACT
The importance of interdisciplinary study in the science field and problem involved had been discussed in this article. In better education, interdisciplinarity includes the layout of topics that provide the possibility to experience 'one-of-a-kind methods of knowing' from students' middle or favoured disciplines. Such a training is an increasing number of essential in an international know-how economy. Many universities have begun to introduce knowledge base studies or subjects to satisfy this perceived need. With today's evolving technological there may be a desperate want for retailoring education. Whether biology or physics, chemistry or computing, arithmetic or engineering, one must be seeking for interplay between disciplines not handiest at research level but additionally at coaching levels. The term 'interdisciplinary' is more and more gaining which means for the new technology of researchers and educators as the novel techniques to all areas of technological know-how are primarily based totally on multidisciplinary methods. In undergraduate studies it has been observed that there is commonly increase interdisciplinary studies. The role of interdisciplinary courses shows wide variation in terms of the disciplines integrated, the audience involved and the method of lecture or classroom as well as laboratory.

Keywords- interdisciplinary, multidisciplinary, science, education

INTRODUCTION
Interdisciplinary training is essential for scientific education, as it provides fresh resources for technology and scientific advancement in the fields. The interdisciplinary project's goal is to dissolve the boundaries between different areas study and promote learning across the curriculum. Association, integration, and transfer of knowledge are the essential components of an interdisciplinary education. Learning skills alone is not a viable option in contemporary education. Through knowledge domain teaching the scholars will expertise the practical half of what they're learning and also see the worth of it. Together with constructive and crucial thinking, effective learning is encouraged as well. An interdisciplinary route syllabus should be defined and structured in conformity with the needs of the precise industry/ medical/ environmental/educational or research area. Both undergraduate and postgraduate students come across common gaps of their understanding due to the fact of the lack of coordination and interplay between disciplines. Science literacy goals can be achieved through interdisciplinary education provided at higher studies.

SCIENCE LITERACY GOALS INCLUDES

1) On Intellectual Level
a. How effectively a person uses his scientific and techno knowledge in every day problem solving also use of ethical values to solve problem and to make effective decision. And also, uses of scientific and technological information sources in taking actions and solving problems.

b. Able to distinguish between reliable and untrustworthy data, evidence from science and technology, as well as personal opinion.

c. It also offers natural phenomenon explanations. For investigating the observable universe, it provides Scepticism, meticulous methods, logical reasoning, and inventiveness.

d. Upholds thoughts and actions with evidence-based rational arguments and investigates the interactions between science, technology, and society.

2) On Attitudinal Level

a. Develop an interest in the natural and man-made worlds.

b. Remains open to new evidence and the tentativeness of scientific/technological knowledge. Engages in science/technology for excitement and possible explanations. Societal

c. Recognises that science and technology are human endeavours.

d. Weighs the benefits/burdens of scientific and technological development.

e. Recognises the strengths and limitations of science and technology for advancing human welfare.

f. Engages in responsible personal and civic actions after weighing the possible consequences of alternative options. Interdisciplinary

g. Connects science and technology to other human endeavours e.g. history, mathematics, the arts, and the humanities.

h. Considers the political, economic, moral and ethical aspects of science and technology as they relate to personal and global issues.

3) Societal Level

a. Acknowledges that technology and science are human endeavours.

b. Evaluates the advantages and disadvantages of scientific and technological growth.

c. Acknowledges the benefits and drawbacks that science and technology may bring to improving human welfare.

d. To access the potential repercussions of different options, takes appropriate personal and civic acts.

4) Interdisciplinary Level

a. Establishes links between science, technology, and other fields of human endeavour, such as history, mathematics, the arts, and the humanities.

b. Examines how science and technology's political, economic, moral, and ethical implications relate to individual and planetary issues.

Science Education issues in India

India's science education system currently faces three real-world difficulties. Since Independence, the **first issue** has persisted and defied resolution. Infrastructure is the most fundamental issue. This is a result of our incapacity to supply scientific labs and equipment to schools and colleges. Science is the study of the physical, natural world. It is information derived by careful observation, measurement, experimentation, exploration, conjecture, and theorising about the characteristics and interactions of natural objects. Whether the subject of forces in Physics or the chemical properties of compounds in water, or in biology, germination, the scientific curriculum focuses on the physical world and the things and processes that exist in it that it wants students to learn—to see, name and consider things in light of the theories and concepts that define various discipline approaches. However, the Indian science classroom and colleges make glaringly no mention of this tangible reality. The same rules apply to language, geography, history, and science studies. Teachers also use textbooks to teach these subjects. The textbooks discuss many topics, demonstrate experiments and processes, and include images. They frequently go the route of not only describing the experiment but also informing students

of what they should observe and conclude, which is an implicit admission by those responsible for designing the textbooks that students won't actually get to experience or see the things they are supposed to learn about.

The lack of well-trained teachers is the **second challenge**. There will undoubtedly be regional variations in this, but everywhere where there are higher paying and more prestigious jobs available for science graduates, we find a disproportionate number of young people coming to train as teachers who have backgrounds in the social sciences and arts rather than math and science.

The question of what should be covered in the scientific curriculum is the **third practical issue** that Indian school education must deal with. Following the Right to Education Act of 2009, we are much more conscious of the variety of students who enter our classrooms and to whom the curriculum must "constructively" address itself. I purposefully use this last word to emphasise how important it is for the curriculum to make sense to people learning it, rather than just being memorised in the hopes that it would eventually make sense.

The Problem with Specialized Education

The increase in specialisation has led to a co-dependent relationship between society and students, strengthening established structures and making change more challenging to implement. Because they believe there will be a need for their skill or trade in society as a whole, many students enrol in higher science education to learn a particular skill or trade. The negative effects of a specialised education have been more obvious over the past few decades with the arrival of the technology revolution, showing that graduates need more than one type of ability if they wish to compete in today's labour market. At first glance, graduates with degrees in art history may appear to be less desirable than those with degrees in computational biology, but a degree in science, technology, engineering, or math can be just as valuable.

The Benefits of Interdisciplinary Studies in Science Education

What is evident is that scientific education must integrate science with topics like environmental studies, economics, history, social studies, and civics if it is to achieve the aforementioned goals. Political education as opposed to only its conventional association with mathematics. Recognition of the borders of subject sub-divisions, such as whether electron transfer should be taught in chemistry, electricity flow as part of physics, or electrical impulses in muscles under biology, is of considerably less importance. The nature of scientific inquiry is the same, as are the scientific methods. In fact, it is clear that science education, regardless of its cover (biology, chemistry, physics, or science itself), has to become more comprehensive in its covering of educational objectives and, as a result, more multidisciplinary in its approach to learning. And with this, the outdated notion of "science for the scientist" is being replaced with "science for the citizen."

Students will effectively use his scientific and techno knowledge in every day problem solving also use of ethical values to solve problem and to make effective decision. Also, He or she can acknowledge the benefits and drawbacks that science and technology may bring to improving human welfare. Interdisciplinary science education will help them to establish links between science, technology, and other fields of human endeavour, such as history, mathematics, the arts, and the humanities also help in examining how science and technology's political, economic, moral, and ethical implications relate to individual and planetary issues.

Charles Eliot thought that eighteen-year-old students had reached the age of autonomy and should be permitted to make their own educational decisions around the turn of the 20th century. The majority of kids are enthusiastic about life and want to experience all that it has to offer at the age of 18, therefore they should be made aware of all their options. Why should a teacher or anyone else dictate what a student who is eighteen years old should or should not

learn? Exploration is a phenomenon that cannot be neatly packaged and distributed to everyone; it is what education is. Many first-year college students are taken aback by how drastically it alters their way of thinking, sense of self, and viewpoint. For the majority of young, college-age students, the distinctive setting generated by residential college life is an amazing experience. It is almost unreasonable to expect students to know what they want from the experience before they arrive because it is such a transforming experience for so many people. Students can enter college and take the helm of their own, individualised knowledge exploration thanks to interdisciplinary studies. Interdisciplinary studies, in the opinion of Oskar Gruenwald, editor of the Journal of Interdisciplinary Studies, will revolutionise higher education. By offering students the chance to cross disciplinary boundaries, new relationships are created and significant contributions to higher education and society at large are made. Students can mix various academic fields and follow various paths of inquiry into a single issue or topic. It is a cutting-edge approach to education that promotes inter-disciplinary cooperation, gives students the chance to hone their critical thinking abilities, and offers numerous growth chances in the "real world." A paradigm shifts from a science learning method that is discipline-based to one that is interdisciplinary offers a variety of desirable educational benefits for both students and teachers, including the development of cognitive and emotive domains. Since specialisation precedes interdisciplinarity, many academics agree that interdisciplinary education is based on the well-established body of knowledge from each disciplinary field. Knowledge of the specialised subject matter is a must and prerequisite for gaining an understanding of other disciplinary knowledge bases and for the delivery of effective instruction. The reason for the efficacy of interdisciplinary education should be supported by actual data in upcoming investigations. Teachers who have been exposed to interdisciplinary teaching strategies and their effect on teaching quality would validate the study's theoretical justification. Now more than ever, teachers and administrators need to work together to influence scientific education and advance it in an interdisciplinary manner. Interdisciplinary teaching should be incorporated into the core of present science education in order to stop this loop.

The Benefits Interdisciplinary Studies for Job point of view

In a Forbes Magazine article, it was stated that "businesses are looking for someone who is confident in themselves and what they want out of a career, confident in the successful tasks they have completed, knowing your strengths, independent thinkers, ambitious problem solvers, goal-oriented proactive workers, works well on a team, enjoys learning new things, and finally, someone who is reliable and responsible. Any business would be happy to recruit someone with all of these qualities. Will a recent graduate who graduated with a profession-oriented degree, such as "business," be successful in her career after she starts working? There are eight types of intelligence, according to developmental psychologist and education expert Howard Gardner: linguistic, logical-mathematical, spatial, musical, bodily-kinaesthetic, naturalistic, intrapersonal, and interpersonal intelligences. Students miss out on a fantastic opportunity to develop as individuals if they attend school and only pursue a single degree without expanding their thoughts with new ideas and disciplines. Learning how to study and how the brain functions is one of the obvious advantages of earning an interdisciplinary degree for students. Interdisciplinary students improve their critical thinking skills, develop a greater sense of self, and achieve more self-awareness as a result of being challenged by a variety of educational opportunities. Many governments and educators continue to reduce funding for the humanities despite the obvious advantages of interdisciplinary courses, claiming that education should be skill-based and career-oriented. Legislators are depriving students of the chance to think in a variety of ways by banning disciplines like philosophy, English, and art history from colleges and universities. Even though they may not want to work in the field, graduates with anthropology degrees are well-equipped to evaluate various cultures and traditions critically, to compile their findings, and to express their views in writing. These are abilities that have

numerous uses and applications. Students who study interdisciplinarity are more likely to develop affective cognitive skills, reading, writing, speaking, and thinking skills, a higher level of learning curiosity, more creativity and originality in thought processes, and the capacity to integrate traditional ideas with contemporary ideas, according to a 1988 study by William Newell and James Davis. Finding innovative and integrative approaches to mix disciplines has considerably more advantages than downsides.

CONCLUSION

In sum, we may claim that higher education in science has grown significantly throughout time. There are not enough institutions, students, or other measures of education. India's economy is dealing with a number of issues facing higher education that must be overcome by the creation of proper policies and their efficient application through introduction of interdisciplinary studies.

In India, higher education of science plays a variety of roles. It is extremely important to many people, and improvements are frequently viewed as grave dangers to certain social arrangements that benefit powerful groups. And for this purpose, there is need to introduce interdisciplinary education system in India.

In conclusion, multidisciplinary education is a hugely significant component of contemporary Indian society and is entwined with the political and social structures of the country.Through interdisciplinary studies we can covered all the Literacy Goals of science education.

The reason for the efficacy of interdisciplinary education should be supported by actual data in upcoming investigations. Teachers who have been exposed to interdisciplinary teaching strategies and their effect on teaching quality would validate the study's theoretical justification. Now more than ever, teachers and administrators need to work together to influence scientific education and advance it in an interdisciplinary manner.

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MULTIDISCIPLINARY APPROACH TO REVOLUTIONARY TEACHING AND LEARNING

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ABSTRACT
Education is the most commanding tool to revolution the world. Different strategies are used in the teaching and learning process. There are many different traditions to teach. A unique educational strategy known as interdisciplinary education allows students to study and explore multiple courses or curricula in different fields. Education is not limited to one field of study. Mainly through discussions, debates and lectures. These methods highlight memories, applications, and themes while focusing on the main idea. Students can learn by listening and observing, thinking and doing, remembering and imagining, creating mathematical models, imagining and visualizing. To raise educational standards, this research primarily focuses on creative approaches to the teaching and learning process. Information and communication technology (ICT) and other technologies are widely used in modern learning and teaching. The presence of technical elements helps to increase student concentration, foster collaborative learning, stimulate creativity, and foster critical thinking in students. Focusing on interdisciplinary cooperation, learning experience and joint experimentation in innovation projects, researchers can know the phenomenon of learning experience in interdisciplinary innovation projects. Researchers describe traditional and modern approaches to the teaching and learning process in interdisciplinary education. These ideas can be applied by teachers, students, or educators to promote organizational success.

Keywords: interdisciplinary, modernization, knowledge, current practice, contemporary tools

INTRODUCTION
A unique educational approach called interdisciplinary education allows students to learn and explore many courses and curricula in different fields. Education is not limited to any particular field of study. Education fosters the growth and progress of every society. It does more than disseminate information, cultivate talents, and teach moral principles. It is also responsible for creating human capital that fosters, drives and guides economic development and technological progress. Both students and teachers benefit from the development of creativity and creative skills. A multidisciplinary approach to curriculum integration highlights the different perspectives that multiple disciplines can bring to a topic, problem, or question. Researcher's hope the need for teamwork is emphasized everywhere. Learning knows no borders and the interdisciplinary teaching strategy used in NEP 2020 is the best step yet taken to support this. The National Education Policy (NEP-2020) aims to bring about a paradigm shift and revolutionary change in the country's education system. Education always fosters a better society. Communicate information, develop skills, transmit value, and contribute to the development of human capital that drives economic development and technological progress. If there is a willingness to change, improvement is expected in each sector. Developing innovative teaching and learning strategies benefits both students and teachers. Education does not force information sounds into the brain. Find the Right Instrument and Achieve Full Mental Mastery Using multidisciplinary approaches in teacher education is a relatively new idea. By using this unique approach to teaching and learning, educators and trainee trainers are better prepared to transfer knowledge and skills. Learners will be immediately impressed and trainee teachers will have many opportunities to improve on this innovative teaching strategy and broaden their experience and diverse skill sets. Experiences collected from various fields are used by educators or prospective teachers to demonstrate lessons. Due to the importance and

applicability of this strategy in the current development era, NEP2020 strongly recommended its integration into the national framework. Education not only fosters intellectual growth, but also improves the moral character of students and helps them develop experienced, holistic individuals with the essential skills of the 21st century. NEP-2020, recognizing the need for a more inclusive education system, calls for provision of teacher training in interdisciplinary colleges and universities by 2030. By building a dynamic and well-resourced education sector, all multidisciplinary higher education institutions will be able to offer bachelor, master and even doctorate degrees in education. According to NEP-2020, a Bachelor of Education degree will focus on pedagogy related to basic mathematics and arithmetic, multi-level teaching and assessment techniques, children with disabilities and children with special needs using teaching techniques and learners.It covers the latest and most relevant teaching methods, including our teaching. - Central or collaborative learning. This educational approach is exemplified through the traditional Gurukul system. This old curriculum has been expanded to include multidisciplinary courses and subjects.

OBJECTIVES OF THE STUDY

1. Understand the concepts underlying interdisciplinary approaches to education.
2. To help young people develop their general qualities and strengthen their capacities.
3. Addressing the many elements of an interdisciplinary approach to teaching and learning

HYPOTHESIS

The main hypothesis of the Present research paper is as follows:

1. As knowledge becomes more accessible, teachers take a more active role as facilitators.
2. An interdisciplinary approach is based on using different disciplines to reconstruct problems and develop solutions.
3. Knowledge becomes more accessible and teachers play a more intermediary role.
4. The interdisciplinary approach is based on reframing problems and developing solutions from different disciplines.

5. **RESEARCH METHODOLOGY**

The information required for the current research study was collected on the subject matter in question in relation to the above objectives. As a result, literature was collected through trips to several libraries. Other government agencies were also visited to obtain official documents and statistics. Additionally, supplemental data is collected from a number of websites. Descriptive and analytical methods are used.

- **INTRODUCTION**

The Value of Innovation in Teaching and Learning.

Thinking beyond what people can already do, recognizing tomorrow's great ideas and putting them into action is part of invention. Today's students demand opportunities to participate in global events and an education that meets their unique needs. We want educators to be creative and create learning environments that are engaging, challenging and rewarding. The Learning Forum is open to all disciplines. Students are using technology creatively to extend learning outside the walls of the classroom and transforming education with new ideas. Concepts used to advance human goals are enhanced by innovative methods. Improved knowledge and understanding of how to test new ideas enables the implementation of new ideas that add new value.

The steps in the innovation process are:

1. Defining the Need for Innovation.
2. Learn from others by adapting and improving current ideas.
3. Preparing for and taking the test.
4. Present your opinions, ideas and thoughts.

This approach raises education standards and promotes progress and growth in higher education.

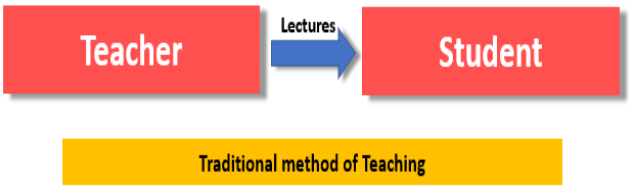
Traditional Teaching and Learning Process

- The traditional approach to teaching is a teacher-centered approach that supports teacher dominance in the classroom. Teachers used rote here. Children learn this technique through memorization and practice. Traditional learning is inflexible because it is tied to time and place. Students' learning needs are not met by conventional education. A teacher-centered approach prioritizes student preferences over individual student needs. Teachers rarely adhere to the teaching methods they believe are best for their students.

To improve understanding, the researcher describes her three basic processes of traditional teaching and learning.

- **Direct Instruction and Lectures**

Teaching and Lectures The only way to convey information is to speak in class with chalk. A teaching method in which the teacher modifies the material for the student. The teacher regularly keeps her talking for an hour without knowing the students' opinions and suggestions.



The information provided is derived exclusively from textbooks and lecture notes. A "plug and play" approach to teaching and learning takes precedence over practical considerations. In the classroom, there is too little interaction with children.

- **Demonstrating-**

- The description for the Demonstrate is "obvious display". Students use demonstrations to approach problems in a traditional way. Teaching through examples and experiments is the methodology used in the demonstration process. For example, a science teacher can demonstrate ideas to students by conducting an experiment. Demonstrations can be used to prove facts by using visual evidence and associated logic. Demonstrations are comparable to

written storytelling and examples in that they allow students to relate to the content being presented. Recalling a list of facts is a cold and impersonal experience, but learning the same knowledge through demonstration makes it more accessible to learners

- **Students Learn Through Listening and Observation**

Students learning by observing the behavior of others is called observational learning. After observation and memory, the desired behavior is imitated. Because children imitate the behavior of adults, they are most likely to learn through observation, also known as shaping or modeling.

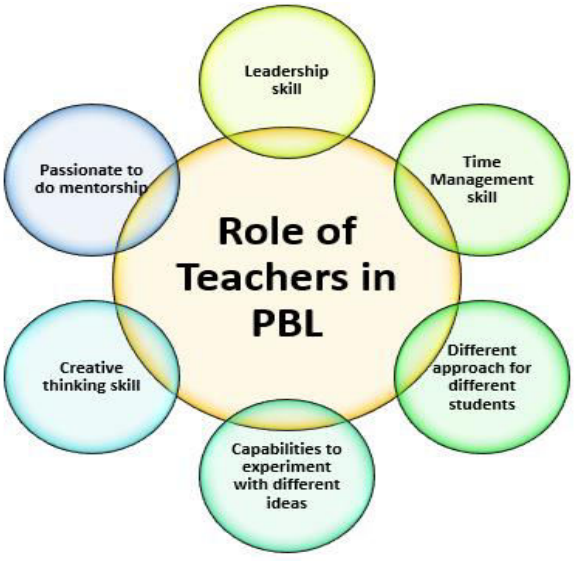
New Approaches to Education and Learning

The educational process of interdisciplinary learning is unusual. In an interdisciplinary curriculum, a single subject is studied from the perspective of different disciplines by imparting educational skills for the 21st century, the National Education Policy (NEP)-2020 focuses on the holistic personality development of each individual. It focuses on the integrated development of all human capacities: intellectual, aesthetic, social, physical, emotional and moral." In addition to studying economics and political science separately. Students have faculty members for each subject who use specializations to provide students with a comprehensive understanding of the subject. Economics and political science may cross-pollinate lectures to give students a better understanding of how economics and political science work together as a whole. excels at enriching students' personal and academic experience by providing examples and experiences from other areas of study.

For example, a liberal arts student could choose an engineering major, while a business administration student could easily choose a social studies major. An interdisciplinary curriculum involves looking at topics from multiple disciplinary perspectives and tackling problems from different disciplinary perspectives. Students can develop a wide range of skills with relative ease, including problem-solving, critical thinking, time management, self-management, communication, analysis and data interpretation, research methodology, and teamwork. Understood the interdisciplinary approach to education. Innovative teaching techniques have been developed in a variety of ways to address problems in the traditional teaching and learning process.

These techniques include problem-based learning, project-based learning, case-based teaching, e-learning, and multimedia learning with interdisciplinary components.

A. Problem-Based Learning-



In problem-based learning (PBL), students learn about a topic by working in groups to find solutions to free-form problems. Motivation and learning are driven by this theme. Present the problem first, rather than teaching relevant content and then having students apply their knowledge to solve the problem. PBL assignments can be short or long. An entire semester is required for completion. PBL is often group-oriented, so it's beneficial to allocate classroom time that helps students work in groups and prepare to participate in a PBL project.

The PBL project gives students the opportunity to develop the following skills:

• Teamwork.

• Activities in project management and management positions.

• Written and Oral Communications.

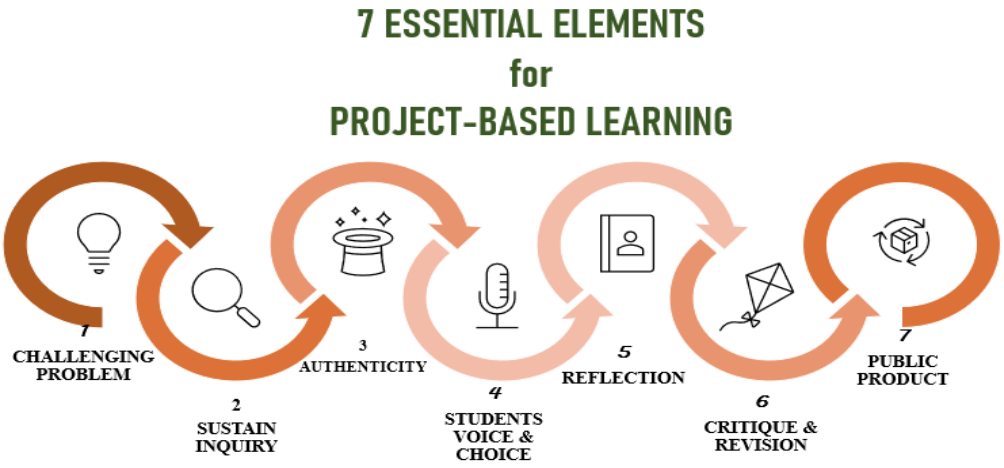
• Self-Awareness and Group Process Assessment.

• Independent Work.

• Analytical and critical thinking

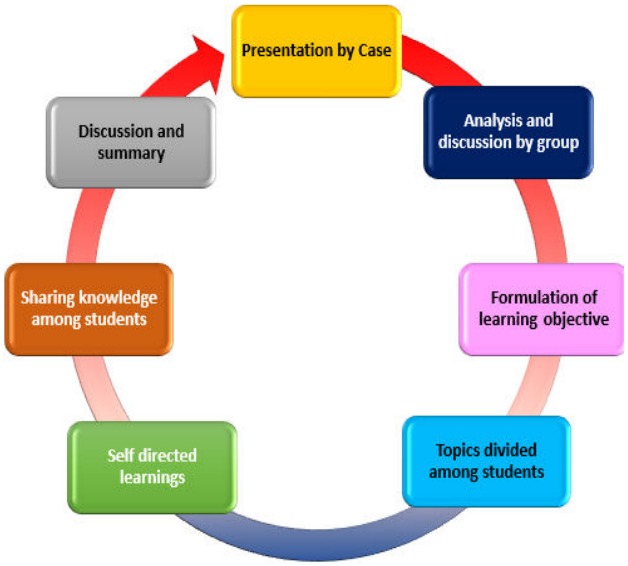
B. Project Based Learning

The goal of project-based learning (PBL), also known as project-based teaching, is to help students develop knowledge and it is about providing students with opportunities to acquire skills in the real world. Project-based learning gives students the opportunity to engage in focused interactions with target topics, with an emphasis on long-term retention rather than summative regurgitation and short-term memorization.



PBL Structure is highly effective in fostering intrinsic motivation through the way it organizes student learning around central themes and problems and key outcomes. After all, students are more concerned with understanding solutions and answers than with understanding what teachers know, understand, and can do. Through problem-solving and investigation, project-based learning allows students to expand their knowledge base and hone their skills. Each project-based e-learning experience revolves around a real-world problem or topic, requiring students to research and gather the data necessary to reach their conclusions.

C. Case-Based Teaching



By tackling situations that resemble specific real-world problems, case-based learning develops the student's ability to address and manipulate basic foundational knowledge. Provide appropriate opportunities for students to apply theory. Students are exposed to many perspectives in real-life or real-world situations and are able to understand why different people have different goals. Students need to do. Many tasks are open so that students can practice choosing appropriate analytical strategies.

Practitioners of case-based learning report that students are more actively participating, engaging, and engaging in the classroom.

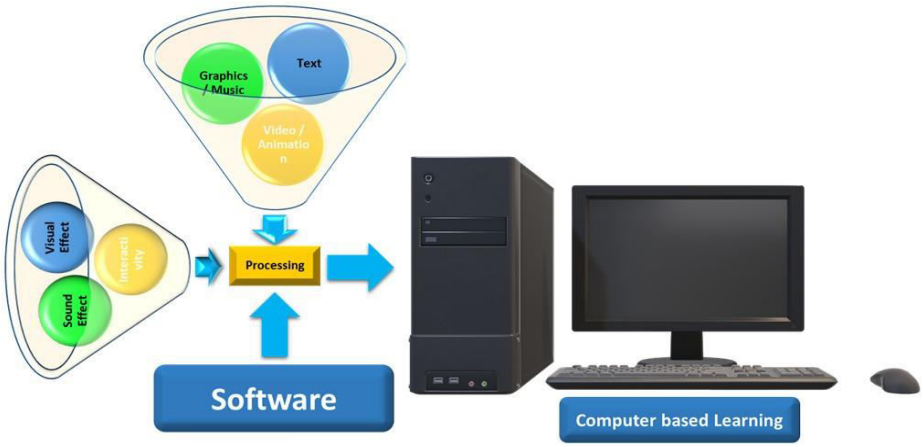
D. E- Learning-

E-Learning is defined as providing training and development to students and staff using a variety of electronic media such as the Internet, audio and video. E-learning, often referred to as e-learning or virtual learning, is what web-based learning means. Analyzing the benefits of online learning should consider that today's professors, students and institutions want access to timely and relevant knowledge. Online learning fills this need as students can learn at their own convenience and pace.

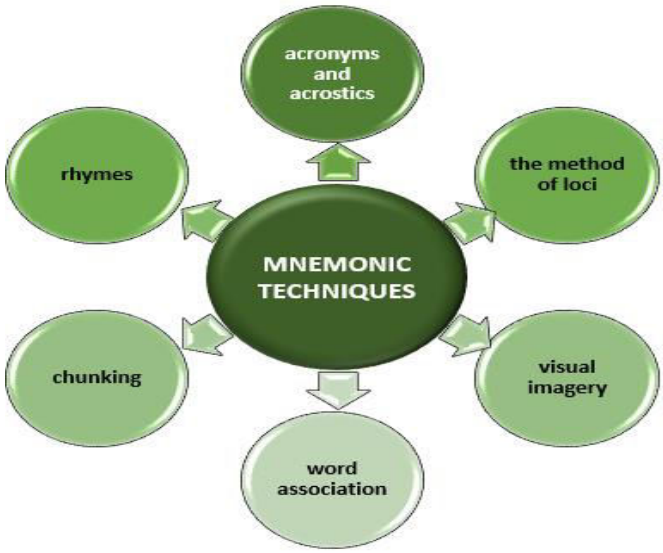
Students can access new and updated materials as needed. E-learning offers a rapid implementation unlike traditional teaching methods. This indicates that the learning time has been shortened. Scalability offered by e-learning tools in delivering instruction. E-Learning ensures that all students receive the same curriculum, study guides, and instruction. Students can save time, money and transportation costs by using eLearning. Therefore, e-learning is cheaper than traditional education.

E. Multimedia Learning

By assigning students to multimedia projects to develop those skills, multimedia technology can be used as a cutting-edge teaching and learning technique in problem-based learning environments. Another advantage of students working on multimedia projects in the classroom is that they often collaborate with other students. Students will need to use group skills and a variety of activities to achieve the overall goals of the project and will need to learn how to work constructively and cooperatively. Used to change the content of the teaching materials. Teachers will be able to present different medical components in a more meaningful way. These media building blocks can be digitally transformed, edited and personalized for your final presentation. Students use a variety of sensory modalities, so incorporating digital media aspects into your projects will help them learn more effectively. This will encourage us to pay more attention to and better retain the information we provide.



F. Mnemonics Words- Words –Words Approach



Word Set Mnemonics are teaching techniques designed to help students remember important information. This approach uses visual and/or auditory cues to link new learning to existing information. Basic mnemonic techniques focus on using acronyms, keywords, and rhyming words. Students can create their own mnemonic devices or teachers can create them. A mnemonic is a technique that can be applied to different subjects. This technique promotes memory enhancement and improves recall of difficult words and concepts. Students with learning disabilities and others who may have trouble retaining knowledge will especially benefit.

G. **Phenomenon-Based Approach**

A learner-centered interdisciplinary educational strategy called phenomenon-based learning is based on student inquiry and problem-solving. There are no specific topics covered and no pre-determined learning objectives. Instead, students research and answer their own questions using topics related to the topic. For example, understanding and answering questions about climate change may require knowledge in different fields such as science, geography, mathematics, and history.

H. **Inquiry-Based Learning**

Inquiry Learning stimulates students by making connections with everyday life through advanced questioning and inquiry. Students are encouraged to participate in problem solving and gain learning experience through this teaching method. From a teacher's perspective, inquiry-based learning aims to take students beyond simple curiosity and into a world of critical

thinking and understanding. Teachers need to motivate students to ask questions and help conduct research, knowing when to start research and how to organize research

SUGGESTION

The NEP-2020 Recommendation on the Establishment of National Academic and Interdisciplinary Institutions is recommended. In interdisciplinary colleges and universities, the policy also encourages the introduction of different teaching and learning approaches in student development. Students from multiple majors, including humanities, business, science, and arts, will benefit from the inclusion of this curriculum. This not only saves time, but also gives you more opportunities to participate effectively in the teaching and learning process. According to NEP-2020, the strategy is relatively timely and well equipped with the latest skills and techniques so that students who adopt it will be able to keep up with the latest advancements in the global education system and be competitive. You can develop a strong global citizenship spirit. The success of this method depends on modern infrastructure and professional development, as well as huge amounts of funding at various levels, as it is essential to introduce different subjects on the same platform. Integrated teacher training centers with new approaches of interdisciplinary education need to be established more and more all over the country to provide interdisciplinary teaching methods at all educational levels in the country. It is therefore very urgent to follow the NEP-2020 proposals in this regard.

CONCLUSION

The conclusion is that the current educational system makes it difficult for individuals to develop fully. Providing interdisciplinary education, or teacher preparation, is more important than ever. Neither federal nor state governments can take all the steps necessary to ensure the implementation and success of this technique, so the active participation of all stakeholders is critical. NEP-2020 recommends transforming all scientific institutions and locations into multidisciplinary education centers and launching integrated teacher training and student education programs nationwide.

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RELEVANCE OF ACCOUNTING & INCOME TAX IN MULTIDISCIPLINARY APPROACH IN NEW NEP 2020

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ABSTRACT
The most important part of any business is accounting. On the basis of correct accounting, one can know the exact position of the Business or profession and need not worry about whether a business is making or losing money if it has a system in place. One can determine the accurate income tax liability on the income of the person recorded in the books of accounts. Taxes and accounting are two things that businesses, as well as professionals, must deal with. Basic knowledge as well as recent technological trends of maintaining books of accounts and finding income tax liability is a must in today's era. Every student will be dealing with money and earning income in the future. So it is the need of the coming period to learn Accounting and Income tax while taking education from any stream. It will be very helpful to become self-acquainted. Even if education is provided to all interested students, it will not affect the services of Tax Professionals. Everyone should have practical knowledge of Computerised Accounting so that one need not be concerned about whether they are making or losing money. Knowing the tax regulations and being updated with filing would be essential to avoid legal consequences.

Keywords: Accounting, Income Tax, NEP, multidisciplinary approach, technological Trends

INTRODUCTION
The knowledge landscape is rapidly changing across the world. Therefore, education needs to shift away from teaching knowledge and toward teaching students how to think critically, solve issues, be creative and multidisciplinary, and innovate, adapt, and take in new information in new and evolving domains. To make education more practical, comprehensive, integrated, learner-centered, inquiry-driven, discovery-oriented, discussion-based, adaptable, and, of course, enjoyable, pedagogy must evolve. One of the fundamental principles of the new NEP is multidisciplinarity and a holistic education across the sciences, social sciences, arts, humanities, and sports for a multidisciplinary world so that there will be unity & integrity of all knowledge. Given the demands of the 21st century, effective higher education must work to create morally upright, considerate, all-around, and brilliant individuals. It must allow someone to study one or more specialized fields of interest in-depth while also fostering character development, ethical and constitutional values, intellectual curiosity, scientific behavior, creativity, a spirit of service, and 21st-century skills in a variety of academic fields, including the sciences, social sciences, arts, humanities, and languages, as well as professional, technical, and vocational subjects. Anyone interested in taking knowledge of Accounting as well as Income tax is the need of the coming period to learn Accounting and Income tax while taking education from any stream.

RESEARCH METHODOLOGY
Secondary data support the research. To gain an in-depth understanding of the topic, essential research scholars review the available literature. During the investigation, a number of published reports and websites were studied.

OBJECTIVES
1. To study the relevance of Accounting in a Multidisciplinary approach.
2. To study the relevance of Income Tax in a Multidisciplinary approach.

HYPOTHESIS

1. Accounting will be taught practically by keeping a special focus on Computerised accounting and recent technological trends in accounting
2. Every student will earn something during or after his education so financial planning is helpful for Income tax purposes
3. The income earned will be greater than the basic exemption limit.

Relevance of Accounting in multidisciplinary approach:

What is Book-keeping and Accounting?

Book-keeping -

Book-keeping is a part of Accounting. It is the primary stage in accounting. It is the process of recording transactions in a proper & systematic manner in the books of accounts. Businessman comes to know the current year's progress over the previous year and compares its financial results with other business enterprises in a similar line.

Accounting -

The measuring, processing, and communication of financial and non-financial information regarding economic entities like enterprises and corporations are known as accounting. Financial accounting, management accounting, auditing, taxation, Cost Accounting, Forensic Accounting, Government accounting, and accounting information systems are topic areas that fall under the umbrella of accounting. The focus of financial accounting is on disclosing financial information about a business to external users, including investors, potential investors, and creditors. Every corporate organization relies on accounting because it is the only method for monitoring its financial situation. A variety of accounting courses are available for those interested in a career in this area or want to gain basic knowledge of the subject. There are certification, degree, and diploma programs in accounting.

The Benefits of learning Accounting:

1. Good Career Opportunities :

Those who are completing education having accounting as a core subject can have good career opportunities. They can work as an Accountant, Tax consultants, Finance Managers, Financial analysts, and so many other options are waiting for the aspirants.

2. Monitor Personal Finances More Efficiently:
People are dealing with money on daily basis. When they know something about accounting, they will come to know where their personal finance is going. With the help of this, they can prepare the budget for the money available and accordingly they will plan for spending and be able to find various ways to make additional money.

3. Current Updates:
The person who is having accounting knowledge can be updated with current events and financial ups and downs so that he can understand the impact of such things on his money as well as business and take corrective actions to avoid future losses.

4. More Contribution at Work:
With some accounting experience, one can be able to assess a company's financial standing independently, draw insightful conclusions from this data, and present suggestions for improvement to top management. In the end, a good knowledge of your company's finances will make you more productive in your position.

5. Several Benefits to the Entrepreneurs
For new and existing businesses, proper accounting helps in several ways. Businesses can control their cash flows to conduct business operations efficiently and effectively without experiencing any financial difficulties. If the businessman doesn't have enough money to pay an accountant, he will have to do it himself. Accounting will be the cornerstone of everything he does, whether looking for investors, asking for a business loan or grant, handling payroll and employee benefits, paying bills, invoicing vendors, or predicting expansion. Accurate accounting makes it easier to determine the business's true profitability and financial position. Entrepreneurs need a strategy for profitability to attract investors and prosper over time. The entrepreneurs may protect themselves and the company from presumptions or misunderstandings by ensuring that all parties are in agreement about the terms of payment and the scope of the activity. Developing accounting abilities can help you achieve your entrepreneurial objectives. Knowledge of accounting will help to analyze financial statements to guide business choices and communicate more effectively inside organization and with its stakeholders' Accounting knowledge will enable you to make better decisions in business as well as in your personal life by teaching you to base your choices more on facts.

Relevance of Income Tax in multidisciplinary approach:

What is Income Tax?

The word "income tax" refers to a category of direct tax that governments levy on income generated by persons. Every Taxpayer must file an income tax return every year in order to figure out their tax liabilities under the law. In India, the tax liability is determined on the basis of place of residence, income level, and rate of taxes according to different slabs decided in Income

Tax Act.
The term 'Total Income' comprises the income earned under the following 5 heads of income.

1. Income from Salary
2. Income from House Property
3. Profits & Gains of Business Profession
4. Capital Gains
5. Income from other sources

For each and every source of income, there are various provisions mentioned in the Income Tax Act 1961 which have a wider scope.

When a person's Total Income is calculated, according to the type of person, deductions are considered for calculating taxable income. Taxable income is compared with slabs and accordingly, income tax is calculated by applying respective slab rates. Determining tax liability is not enough. The person needs to file an Income tax return with the Income tax department. A document known as an Income Tax Return (ITR) is used to record a taxpayer's annual income and taxes due for the preceding tax year. The Income Tax Department receives ITRs from taxpayers. The assessee must provide the Income Tax Department with all relevant information on taxable income or loss. Having proper knowledge of Income tax will help with Tax planning.

Benefits of Learning Income Tax:

1. To Become Financially Literate
There are numerous approaches to better money management. These include making bank deposits, improving budgeting, keeping track of costs on a weekly, monthly, and annual basis, defining short- and long-term goals, and comprehending loans. However, as tax is a crucial component of financial management, you can't perform any of this if you don't have sufficient knowledge of it. And everything else is strongly related to paying taxes because any change in your financial situation has an impact on the tax amount.

2. Improved Record Keeping:
It will be simpler to embrace all the other significant information once aware of the fundamentals of taxation. The most crucial thing is that you won't miss them because doing so would cost you later. Financial experts are charging fees for providing their expertise on financial matters and require evidence for each and every transaction, so one can categorize and accurately organize receipts.

3. Mistakes Can be Avoided:
The majority of errors are the result of inadequate knowledge. Even though you don't want to manipulate the system, mistakes can still occur if you don't have the necessary information. For instance, even if you avoided mistakes, the task was still incredibly challenging for you to complete. All of this is a warning that you need to learn much more. It offers a chance to handle tax issues more easily, avoid challenges, and even claim deductions. In that scenario, you can save a lot of money.

4. Tax Relief & Tax Benefit

With the right information, you can benefit from a variety of tax breaks. It is a chance to avoid further taxes while simultaneously saving and doubling your hard-earned money.

Income Tax Return:

ITR is a form where you fill out the information about the income you made during the previous financial year (1st April-31st march). Everyone, whether a salaried individual, a partnership, or even a HUF, must file an ITR.

Benefits of Filing Income Tax Return:

1. Income Tax Return is of great legal significance. It is noted with the authorities. It provides proof in two different ways.

a. Identity Verification

You might be asked to present your completed return as identification in a variety of situations, such as when applying for an AADHAR card or any other document.

Also, the government accepts it as acceptable identification for residency.

b. Income Evidence

The ITR form includes a comprehensive list of all of your earnings and expenses.

Based on this, the tax you must pay is decided.

2. The government permits specific deductions in order to ease the burden on taxpayers and to encourage more individuals to pay their taxes.
3. One important document that is required is evidence of income. Banks usually asked for ITR for the prior three years. This is done to establish if, in light of your past and present financial situations, you will be able to repay the loan.
4. The taxes that apply to you are governed by the Income Tax Act of 1961. So, if your income exceeds the exempt level, you must pay taxes. As a result, you will face a fine if you are eligible to pay income taxes but fail to file your tax returns.
5. Sections 70 and 71 of the Income-tax Act of 1961 contain provisions for carrying over losses from one year to the next. This suggests that your loss can be carried over to the subsequent assessment year.

SUGGESTIONS

Students interested in accounting and finance from any other stream might choose accounting and taxation courses for more comprehensive knowledge in a multidisciplinary approach. Aspirants will be having good career opportunities.

CONCLUSION

Financing, auditing, and taxation are key aspects of a company's fundamental structure that must be present for it to prosper and grow.

A person with these qualities is regarded as qualified and perfect for the development and financial growth of a firm.

Both the public and commercial sectors have a high demand for accounting expertise. Students are likely to get good opportunities with huge salary packages. Students have the propensity to understand the particular aspects and specifics of accounting and its administration in a firm. One of the most widely used programs, Tally ERP, may be learned. developing their accounting ability, enabling them to succeed in commercial enterprises.

One learns about various topics, including taxes, filing returns, how the Indian economy works, and what inputs can be given to improve a certain company's financial status.

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A SURVEY ON CHALLENGES BEFORE MANAGEMENT EDUCATION

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ABSTRACT

The goals of management studies are to help students improve the personalities, develop their intellectual, and develop managerial and skills in communication, all of which will be useful in their businesses and organizations. In India, a number of management institutions work under the UGC and AICTE. Management courses play an important role in the business environment. The BBA and MBA students should meet the needs of the business environment. As a result, the management institution should provide proper guidance and a learning environment for management students; only then will businesses benefit from the management students' knowledge. The Indian economy's liberalisation and globalisation have faced our new business with problems and opportunities, which has made it necessary to re-engineer the current management education system. Certain issues with management education exist, including UGC regulations, AICTE regulations, a lack of faculty, poor student response, changing market demands, etc. This paper will concentrate on issues confronting management institutions as well as students' expectations of management institutions. Keywords: BBA, MBA, AICTE Management Education, Challenges of management education.

1. INTRODUCTION

For students to develop their managerial skills, management courses include both academic and practical information. Students receive information in management education that enables them to adapt to international business requirements. Undergraduate courses like the BBA are offered, as well as postgraduate diplomas like the PGDBM and graduate programmes like the MBA, MMS, and PhD. AICTE offers courses in management.

One of the key objectives of management studies is to provide students with both academic and practical business knowledge. Through the planning of various activities and the dissemination of theoretical knowledge, management education encourages the development of entrepreneurial ability, decision-making, and other business skills.

In the Indian business environment, management education is extremely significant. Students that study management gain expertise on how to handle management and business difficulties. An instrument that aids in contributing to the global economy is management education.

The Goals of Management Studies are to:

* Provide students with a foundation in management education so they can comprehend how businesses are managed;
* Get them ready for management challenges;
* Enhance their communication, presentation, and entrepreneurial skills.

In India, a number of management institutions work as per the AICTE rules. But the quality of education is not maintained by all management institutions. Management education must meet the expectations of students and industries. As a result, new issues in management education are emerging, such as AICTE rules and regulations, quality education, persuading students to enrol, and so on.

2. REVIEW OF LITERATURE

2.1 Dr. J Balamurugan and L Priya Dharsini: Issues and challenges of management education in India: A global review Research: In this paper the researcher review the literature for knowing the issues and challenges before the Indian Management education. In this article author analysed challenges and issues in management education because of new business environment and Business Technologies.

2.2 Dr. Amrik Singh Sudan, Mrs. Lekha Nagar: Management Education in India: Challenges and Suggestions.' In this article the researcher analysed the basic information of Management education strength, weaknesses, opportunities and threats of Management education in India. He also explained the challenges of Management education in 21st century.

2.3 Chandra Vadhana R, Dr. K.A. Zakkariya: Does "Soft Skills" Matter For Indian B-Schools?: In this paper researcher focused on soft skill of Management students. The objective of this paper was to focus on skill development of Indian Business School. Researcher found that Indian business schools focus on soft skills of students.

2.4 Dr.B.Gangaiah Juturu Viswanath: IMPACT OF INDIAN MANAGEMENT EDUCATION IN DEVELOPING ENTREPRENEURIAL ASPIRATIONS AND ATTITUDES AMONG MANAGEMENT STUDENTS: Researcher explain the problems faced by the management education in India. Objective of this paper was to study the factors affecting on entrepreneurial skill and how the management education motivate to the management students for entrepreneurial skill. He concluded management faculties should be a good mentor for motivating to the students. Curriculum or syllabus should be change as per the business needs.

2.5 Dr. Marimuthu, KN Mr. B. Chandirasekar: Quality of Management Education in India and Reengineering Process from Traditional to Modern: An Overview. The researcher focused on the issues and challenges of the management education in India. Explain the management students cannot cater the needs of market so they suggested redesigning entry engineering of Management courses.

2.6 **Ritika Mahajan,** Dr**. V. K. Nangia, Dr. Vinay Sharma:** MANAGEMENT EDUCATION LANDSCAPE IN INDIA: ISSUES, CHALLENGES AND STRATEGIES: Researchers explain the biggest challenges before the Indian Management education. The concluded UGC and AICTE should continuously monitor the management institutions.

2.7 Shweta, Manoj Kumar: **Management Education in India: Issues & Challenges.** Researcher analysed a different issues and challenges of Indian Management education emerging because of new business scenario. They discussed the emerging issues like quality education, shortage of faculties, poor role of AICTE, government role etc. Researcher concluded Management studies should meet the expectations of the business world.

3. OBJECTIVES OF RESEARCH

I. To study the expectations of students from the management colleges

II. To study students' preferences for learning methods.

III. To study the activities for effective learning.

IV. To study the trend of students regarding business competitions, workshops, and seminars.

V. To study the issues and challenges before the management institutions in India.

4. RESEARCH METHODOLOGY

This is a fact finding research approach. The survey method of study was used, to find out how management students feel about management education, a survey of BBA and MBA students was conducted.

4.1 Sources of Data

Using primary and secondary sources, data was collected for this research paper. **Primary data** were collected through the questionnaire and discussion with the management students. Questionnaire were sent to BBA and MBA students. **Secondary data** were collected from journals and websites.

4.2 Sampling Size

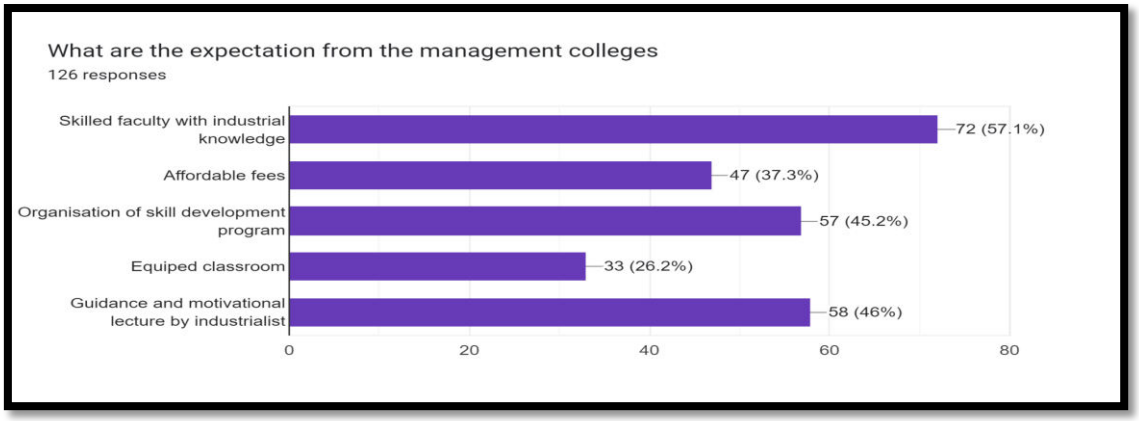
Simple random sampling techniques were used for collecting data. Data were collected through the survey. Randomly, 126 students were selected as a sample from the BBA and MBA courses in Pune

4.3 Limitation of Study

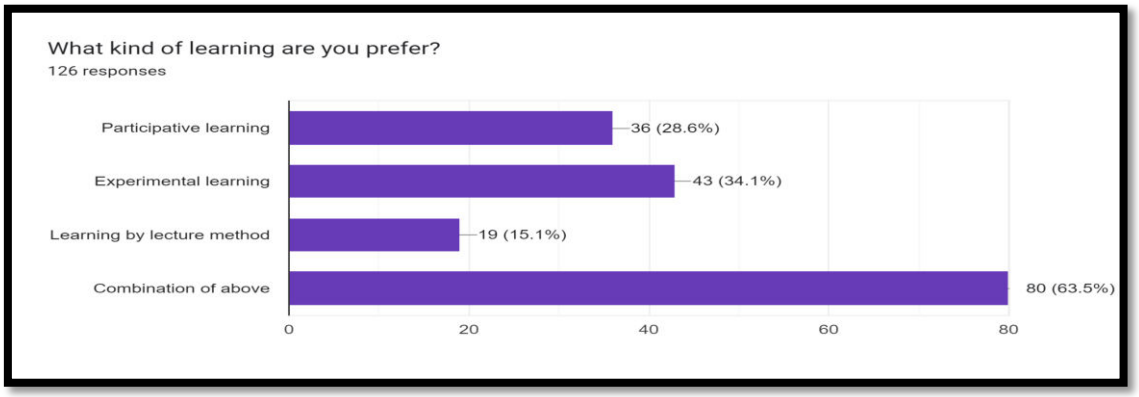
The study is limited to selected samples only. Findings and conclusions are based on the survey of 126 students of BBA and MBA in Pune.

5. Data Analysis and Interpretation

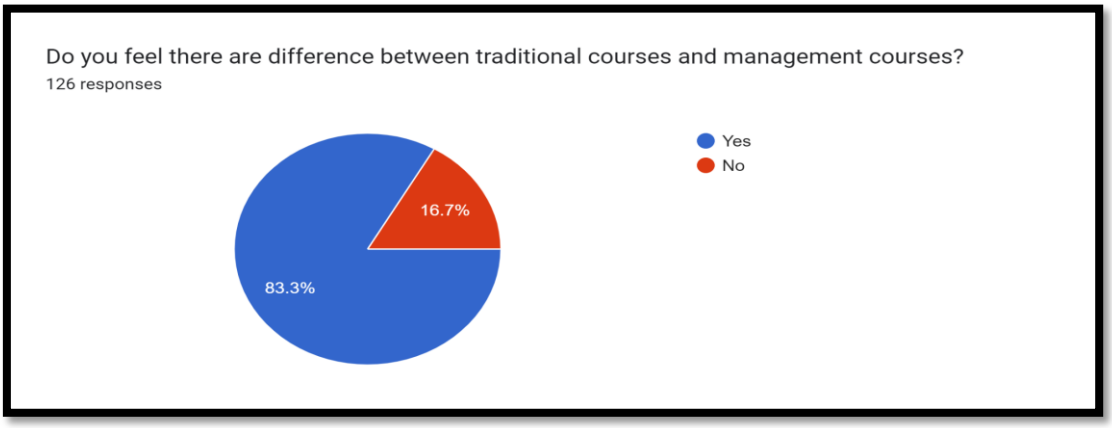
Data was collected from 126 students through the questionnaire. The analysis of responses collected from the students are as follows.



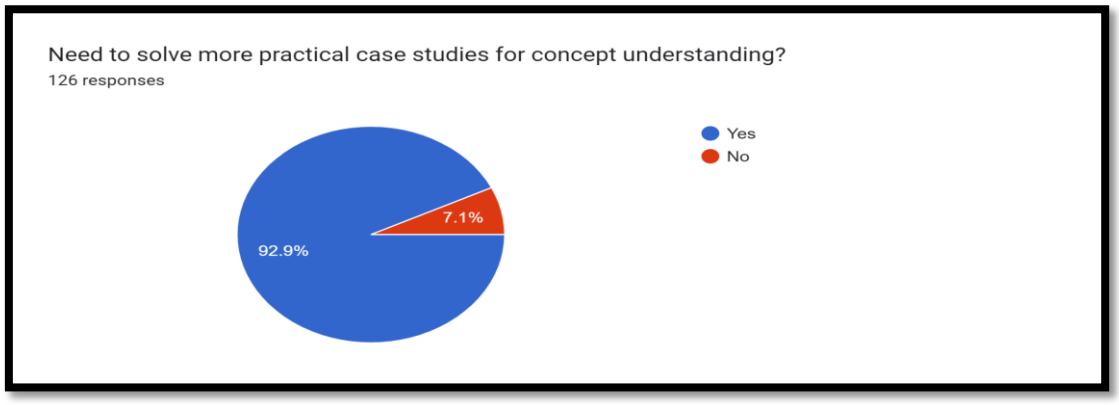
The above bar chart shows students expecting all the given factors but mostly they expecting skilled faculties, lectures by industrialist and skill development programs.



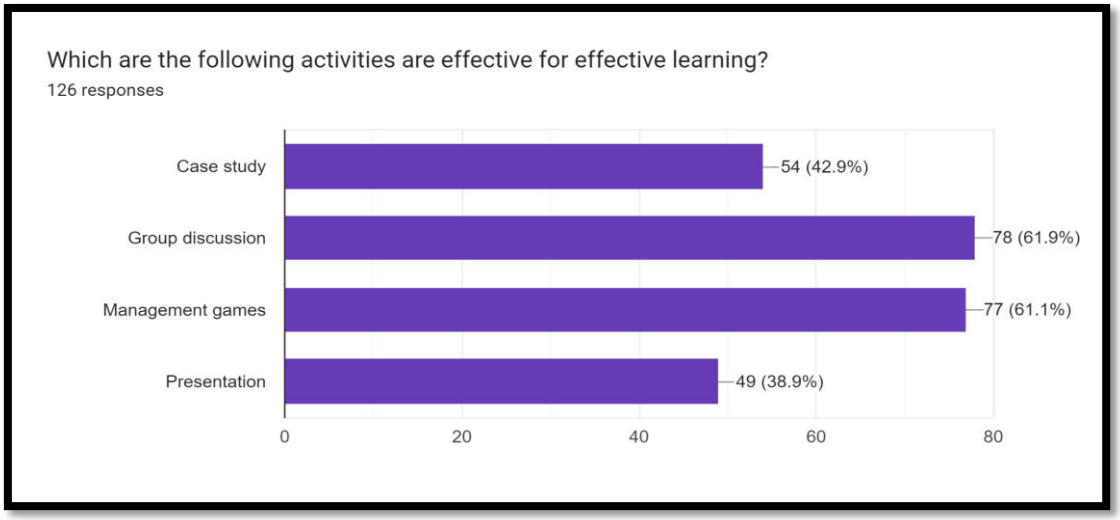
Above bar chart shows students preferring combination of all type of learning.



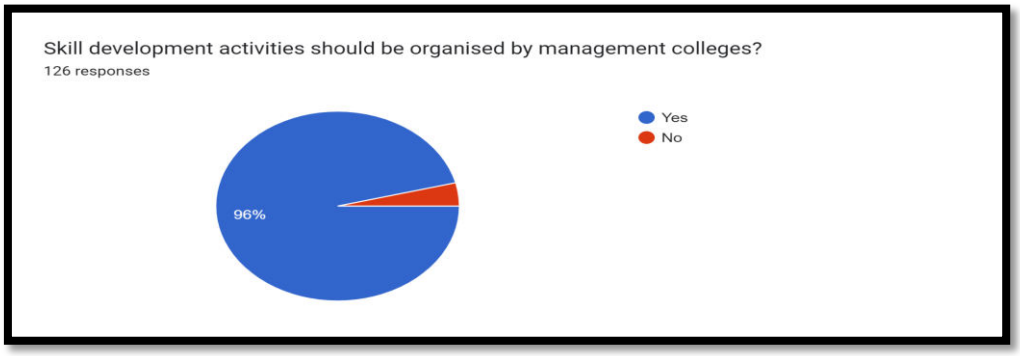
Above pie chart shows 83.3% students said management courses differ than the traditional courses.



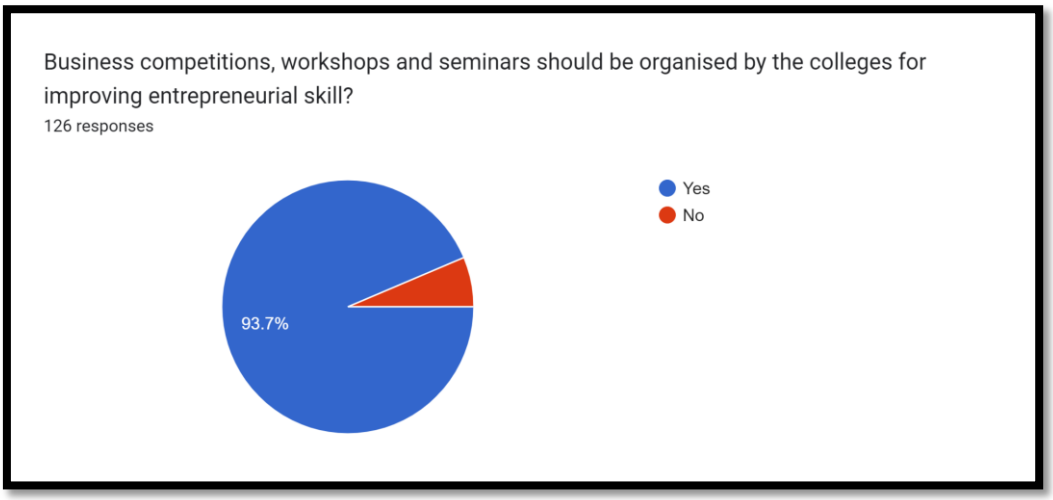
92.9% students said there is a need of solving more case studies for better understanding of concept.



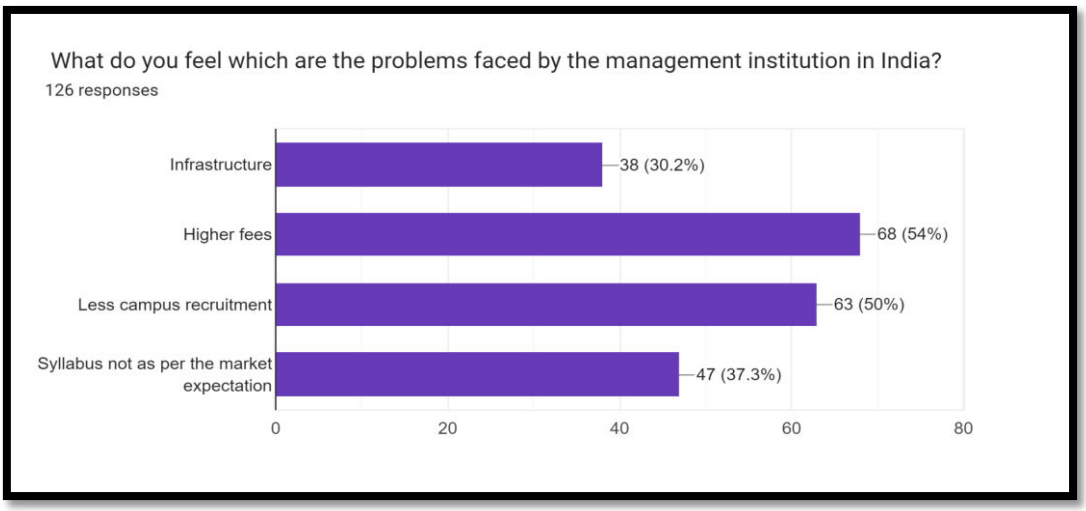
Above bar chart shows less student's opinion is presentation is an effective way of learning but most of the students opinion is management games, group discussion and case studies are more effective for learning.



Above pie chart shows 96% students said skill development activities should be organized by the management colleges.



As per the above bar chart 93.7% students said business competitions, workshops and seminars should be arrange by the management colleges for improving entrepreneurial skill.



The above bar chart shows the trend of problems faced by the management institution. 50% and 54% students said less campus recruitment and higher fees are the major problems of management institutions.

6. FINDINGS OF THE STUDY

- ✓ Students want skilled faculties with good industrial knowledge, the skill development programs, lectures by the industrialist, equipped classrooms, and affordable fees.
- ✓ For better learning, students expect a combination of participatory and lecture methods.
- ✓ There is a difference between traditional courses and management courses. Management courses improve the skills of the students as businessmen and entrepreneurs. Hence, students are expecting to use different methods than traditional courses.
- ✓ Students want to solve more practical case studies to improve their decision-making abilities and gain practical knowledge.
- ✓ Students respond to case studies, group discussions, management games, presentations, and other engaging activities for engaging and effective learning.
- ✓ The majority of students still believe that management colleges should organise development activities and business competitions to help students improve their entrepreneurial skills.
- ✓ Higher fees, less campus recruitment, curriculum that does not meet market expectations, a lack of infrastructure, and other issues plague management schools in India.

7. CONCLUSION

In India, management institutions are facing a variety of problems like higher fees, less campus recruitment, a lack of infrastructure, new emerging market requirements, etc. Management students expect something different from the traditional courses. They believe in participatory learning and would like to see more practical case studies to help them understand the business environment. They expect the colleges to organise a variety of business competitions, seminars, and workshops for improving entrepreneurial schemes. The management institution should provide more and more practical industry knowledge. Frequently, they should arrange guidance lectures by industrialists for the students. In order to provide students with industry knowledge, faculty should be aware of industry trends. Faculty should use different activities, like case studies, group discussions, and management games, to improve the skills of management students.

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NEP 2020 MULTIDISCIPLINARY APPROACH: LEARNING ELECTRONICS IS NEED OF THE HOUR

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ABSTRACT
The National Education Policy (NEP) 2020 is the first education policy of the twenty-first century. In NEP 2020, Indian academics have attempted to fill the gaps left by the previous Education Policy of 1986. The New Educational Policy 2020 insists on a multidisciplinary approach in higher education to enlarge its reach through a variety of disciplines of study and give freedom and autonomy to the learner in choosing the subject of study [1, 2]. These days, we use electronics on a daily basis and it becomes an essential part of our life. Electronics not only helps in meeting our individual requirements, but they also contribute to the expansion of our economy as a whole. As Electronics play an important role in innovation and modernity owing to the expanding influence of technology, the objective of this paper is to focus on importance of learning electronics with arts and commerce program [3].

Keywords: Electronics, Technology, NEP 2020, Multidisciplinary approach.

I. INTRODUCTION
Education is the fundamental requirement of every human being of society. A new National Education Policy was adopted by the government on July 29, 2020, with the intention of making a number of modifications to the current Indian educational system. A distinctive educational strategy called holistic and multidisciplinary learning enables students to learn about and experiment with various courses or curricula from various fields of study. Learning surpasses the limitations imposed by a particular discipline. It is recognize that the quality of education should not be evaluated in isolated terms but rather more broadly and holistically. For the purpose of creating individual with a variety of functional abilities, who can handle the demands and challenges of the current period, education must take a holistic and multidisciplinary approach. NEP 2020 correctly points out that education is essential for realising one's potential as a whole in this regard. Students must be prepared for more fulfilling and productive lives through a great higher education

This paper primarily examines the importance of learning electronics in different programs of higher education. The modern world is the era of electronics and technology. The globe is led by all those nations having advanced technology. Electronics is a branch of applied science that deals with electrons. It manages all electrical circuits including both active and passive components. There are several subfields of electronics, including integrated circuits and semiconductor devices, digital electronics, analogue electronics, microelectronics, nanoelectronics, and optoelectronics, Internet of things (IOT), Robotics, Embedded Systems etc.

The world is changing quickly, so it's critical that technology keep up with the most recent developments in society. Some of the indispensable electronic gadgets we use on a daily basis include calculators, digital watches, mobile phones, laptops, and PCs. We also utilise gadgets like televisions, refrigerators, air conditioners, microwaves, mixers, blenders, grinders, and many others.

Figure – 1

II. OBJECTIVE OF THE STUDY

The objective of this research paper is to study-

1. The multidisciplinary approach of New Education Policy 2020 on higher education and
2. Outlines the importance of learning Electronics with arts and commerce programs.

III. NEP 2020 Multidisciplinary Approach

The New Educational Policy 2020 insists on a multidisciplinary approach to higher education in order to broaden its scope through a variety of disciplines of study and to ensure the learner's autonomy and liberty in choosing their field of study. Through a variety of disciplines, one attempts to illustrate a holistic grasp of the problem or scenario. With the aid of related fields, a multidisciplinary approach enables an individual to approach an issue from various angles.

There are numerous ways to implement multidisciplinary approaches at the institutional level, including offering open courses from different disciplines under the institution's CBCS system, offering vocational programmes in different fields of study, offering courses of a programme taught by faculty from different disciplines, including multidisciplinary courses as electives, encouraging students to choose electives from other departments, teaching a subject from multiple disciplinary perspectives, and more. A multidisciplinary scenario will allow for the integration of knowledge, perspectives, and concepts from two or more specialised fields to better understand a situation or address issues whose solutions fall outside the purview of a single discipline due to the close association between the various disciplines.

The spirit of holistic and multidisciplinary learning is reflected in the following important components:

- The development of integrated people benefits greatly from a multidisciplinary and holistic approach to education. It is a ground-breaking approach because it allows students to simultaneously learn about liberal arts, humanities, languages, social sciences, professional skills, vocational skills, ethics, morals, human values, and other topics while also learning about science, technology, and arithmetic. With this comprehensive strategy, students may become more employable in the modern workforce.
- The goal is to combine STEM (Science, Technology, Engineering, and Mathematics) and the arts stream. This method combines the study of science, technology, engineering, and math

with the study of the humanities, language, arts, dance, theatre, music, visual arts, media, and more. Students' pleasure and wellbeing enhance when STEM and art are combined. It enhances problem-solving abilities and inspires both creativity and ingenuity. With the use of this framework, students can cultivate virtues like tenacity, responsibility, and citizenship that will benefit them throughout their lives.

- This strategy aims to broaden learners' horizons and encourage a culture of constant research and communication. True education must empower students with the skills necessary to contribute to society's advancement by living creatively, responsibly, and in peace.
- The strategy shows a significant change away from rigorous course selection procedures and toward competence-based learning, which aids students in further developing their core competencies. Professionals are expected to grow their hard and soft skill sets in order to become more competitive job applicants and performers. Hard work, integrity, discipline, cooperation, adaptability, compassion, and communication are attitudes and values that help people build positive interpersonal connections, which in turn help people grow to their fullest potential at work.

IV. Applications of Electronics in Various Fields

Electronic tools or machines are among the finest ways to boost productivity and save time since, as we all know, they tend to play a significant role in everyone's lives.

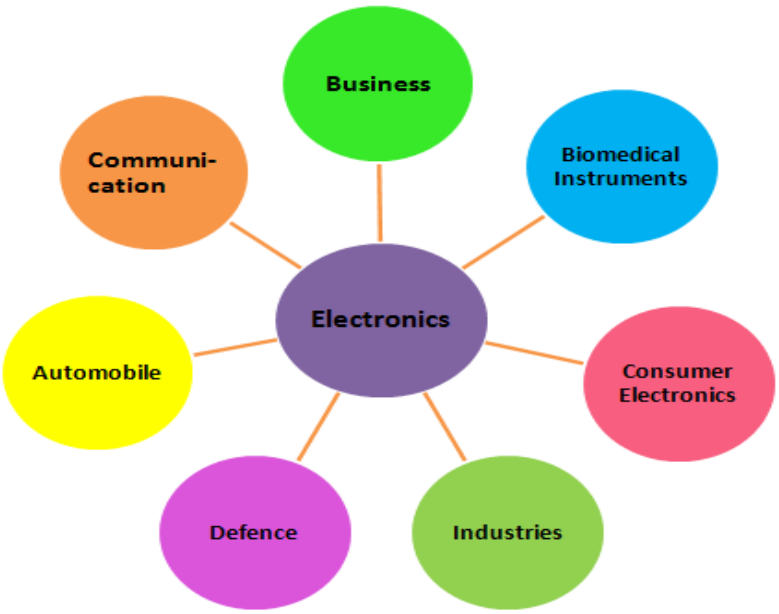

Figure – 2

A wide range of electronic applications has made our lives more efficient.

Different fields having applications of electronics are –

- **Biomedical Instruments**

Biomedical instruments are being created for data recording and physiological analysis adopting the most recent technologies and electronics engineering, and these instruments are very helpful in identifying diseases and treating patients. Electronics are essential for the functioning of medical tools, such as the stethoscope, which is used to hear the interior sounds of an animal or human body, the glucose metre, which measures blood sugar, the pacemaker, which regulates the rate of heartbeats, and others.

- **Consumer Electronics**

The everyday user benefits greatly from this industry. Electric appliances designed for daily usage are known as consumer electronics. Additional divisions of consumer electronics include: gadgets for the office, such as calculators, scanners, computers, printers, fax machines, front projectors, etc. household equipment such refrigerators, air conditioners, washing machines, vacuum cleaners, microwave ovens, etc. Headphones, DVD players, VCRs, microphones, colour TVs, loudspeakers, video game consoles, and other audio and video systems are examples. POS terminals, cellphones, PDAs (personal digital assistants), setup boxes, dishwashers, ATMs, and other high-tech consumer electronics. Disc storage, HDD jukebox, MP3 players, memory cards, etc.

- **Industries**

The main aim of this sector is creating real-time automation. This covers biomechanics, robotics, mechatronics, power converting technologies, industrial automation and motion control, motor drive control, machine learning, renewable energy applications, solar systems, and power electronics.

- **Defence**

Defense and aerospace systems, such as missile launchers, cockpit controls, military radars, aircraft systems, space rocket launchers, and many more, have made extensive use of electronics technology. Devices and systems that use the most advanced electronic sophistication and technological excellence in order to provide the most recent technologies for the protection of the country. Such electronics-based systems offer dependable, high-performance electronic attack, protection, and detection capabilities to enable operations to be successful with the fewest number of casualties. These advanced systems have numerous military applications and can be used in a variety of environments, including the air, land, sea, and space, as well as for different services.

- **Automobile**

The modern automotive technologies heavily rely on electronics, including anti-collision systems, anti-lock brake systems, traction controls, window regulators, and numerous electronic control units.

- **Communication**

Electronic communication is described as any form of communication that employs electronic means, such as computers, email, telephones, video calling, FAX machines, etc., to transmit information or messages. By exchanging information such as images, graphics, sound, photos, maps, software, and many other things, this style of communication can be produced. Numerous changes in the workplace, society, etc. have taken place as a result of e-communication. People can easily access global communication as a result without having to migrate.

- **Business**

You may only be aware of the cash register, security system, and internet, but there are many other crucial business electronics that can enhance productivity, customer satisfaction, and success. No of the type of business you run, many of these electronics are necessary. Any type of business or commercial transaction that involves the exchange of information via the internet is referred to as electronic business (also known as "Online Business" or "e-business"). E-business is defined as conducting business using the internet, whereas electronic commerce focuses on the use of information and communication technology to enable the external actions and relationships of the business with individuals, groups, and other

Thus, in 21st century electronics is everywhere and there are number of carrier opportunities after studying electronics.

IV. Benefits of Learning Electronics with Arts and Commerce Programs

A roadmap for progressing from fundamental reading and numeracy abilities to higher level knowledge and capacities is given in NEP 2020. Students interested in arts and commerce subjects can develops a wide range of abilities that are applicable in a variety of employment settings, including problem-solving, critical thinking, time management, self-management, communication, analytical and research approaches, and much more by selecting electronics subject to get technical knowledge.

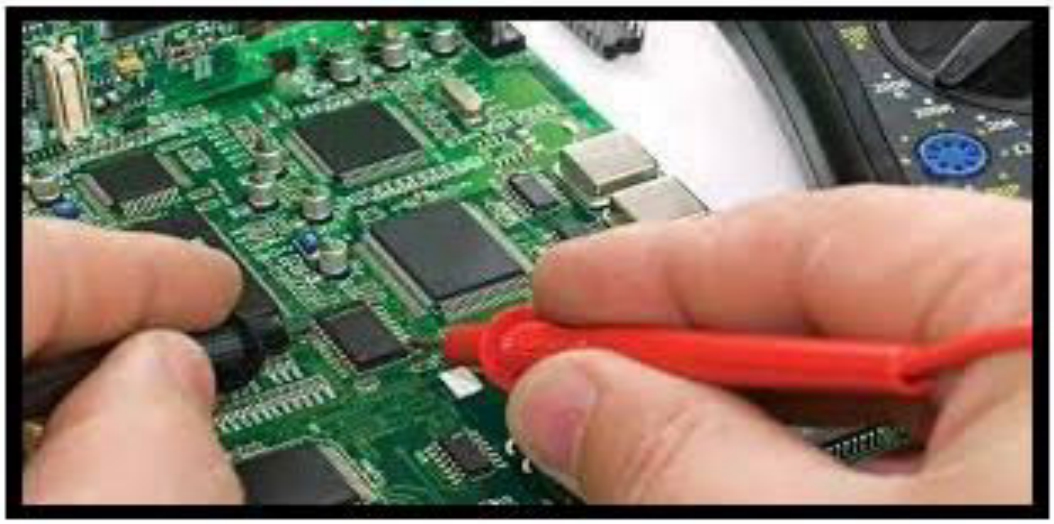

Figure – 3

Some of the Benefits of Learning Electronics with Arts and Commerce Programs are given here,

- **Choosing Mobile phone or laptop:** Picking a Smartphone or laptop is a difficult task. These are typically expensive but essential items. There are methods to limit your options so that you spend your money wisely on the functions that are most important to you. Selecting from among the hundreds of possibilities available might be difficult, especially if your priorities are unclear. To select the best one as per your requirements, need to learn basic difference between operating system, features suits your requirements, battery life, supporting software, storage space, camera quality, speed, update policy etc.
- **Art with Electronics:** Let's use both art and technology to create meaningful and interesting learning opportunities because they both explore creativity in unique ways. Different ways to combine art with technology are adding light and sound to artwork, use of drawing tablet and colour printer, draw using stylus, use of electronic instruments for music, transform artwork digitally, animation, exploring 3D pens and pencils etc.
- **Commerce with Electronics:** Large-scale trade in commodities and services is known as commerce. The term "commerce" refers to any transaction in which money is used to pay for goods or services. The electronics sector is a fascinating one, offering consumers a wide variety of new products. The number of people using the internet to find electronics offers is increasing yearly. Given the intense competition, it is crucial to make the purchasing experience straightforward, reliable, and backed by excellent customer support. Technologies every e-commerce site needs are Artificial intelligence (AI), Chat bots, Voice assistants. Online payments are done by using E-payment Method.
- **AT Non-technical Work Place:** A basic understanding of electronics may not only help you succeed in a technical career but also in a non-technical one. For instance, think about the

performance of the business and its capacity to deliver best customer service may suffer if the team is forced to wait for a repair specialist to arrive to fix a malfunctioning cash register in the middle of a busy day. If you are familiar with the fundamentals of electronics, you might be able to diagnose the problem and take prompt action.

- **AT Technical Work Place:** A profession as a computer support technician or computer repair technician would be a fantastic alternative for those who enjoy working with computers. You may assist someone by fixing their computer, assisting them in selecting the ideal operating system for their needs, removing a virus, and setting up anti-virus software.

V. TEACHING CHALLENGES

In multidisciplinary education system, developed creative and innovative methods benefits both students and teachers. The development of multidisciplinary techniques will inevitably change the function of education. Knowledge is becoming more accessible, and the teacher's job is evolving to become more of a facilitator. Teachers have to become lifelong learners and need to maintain disciplinary knowledge. As every machine is updated every few months, it is important to continually learn new technology. Now, the performance will matter more than the degree, so need to compete with the worldwide teaching community to stay updated.

VI. CONCLUSION

If the new National Education Policy, 2020, which was approved by the national government to modify the Indian educational system to match the needs of the 21st century India, is properly implemented, this new system will make India one of the top nations in the world. Offering multidisciplinary programmes would enable the university significantly broaden its accessibility by enhancing its flexibility. Learning would be improved by improvements in delivery made possible by cross-cultural, cross-sector, and collaborative learning models. Electronics is very important subject for all students to stay connected with modern world.

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MULTIDISCIPLINARY APPROACH IN THE EDUCATION SECTOR

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ABSTRACT
In the educational system in which we teach and receive various types of information from others from our childhood, we acquire and transmit various types of information, and knowledge of multidisciplinary education contains with sending and receiving various types of information and knowledge from various fields. It's like a comparison study or interdisciplinary learning study where we compare a "whole" or "comprehensive" method that contains various kinds of ideas, topics, or texts by integrating multiple knowledge domains. Multidisciplinary education provides various types of information and gives unlimited educational facilities that give permission for students to study and explore different subjects and sectors. The educational field is not limited to a particular sector or age group. For example, a student of commerce or management can take any subject for the purpose of the study. Multidisciplinary educational fields generate interest in different educational and non-educational sectors and produce a creative output. This enables the study of various subjects as well as learning about and investigating various subjects with share ideas generated made from various fields or sectors. Education is not limited to a particular field or sector. While discussing the limitations of the educational structure, the concept of "earning knowledge" has bounds in various aspects, including teaching format, teaching-learning methods, time allocation for particular topics and many other things according to the university's syllabus. And the result is that the desired goal of education will be compromised.

Keywords: Multidisciplinary education means, Importance of Multidisciplinary Educational, Multidisciplinary Educational Approach in for their advantages and disadvantages.

INTRODUCTION
An approach in that educational sector, multidisciplinary is a method in which integration of highlights and diverse perspectives in multiple disciplines and formats may help set a theme on various subjects or issues. In this system, multidisciplinary education provides a platform for various types of students to show their intellect in various fields. What is the importance of a multidisciplinary educational approach in teaching? - were a multidisciplinary educational approach, various types of students gain a variety of skills and information—problem-solving, critical thinking, time management, self-management, ways of communicating and writing, analysis and research techniques, teamwork, team management, and much more—that are easily transferable and useful across work environments and community development. As a result, in today's tough competition with limitations of learning and educational system boundaries, the need for that kind of educational system that promotes the multi-disciplinary educational approach which helps students follow their passion has increased. Despite the fact that the National Education Policy 2020 (NEP 2020) on multidisciplinary education has been discussed with educational sectors, all partners are still weighing its benefits and drawbacks.

REVIEW OF LITERATURE
Multidisciplinary or interdisciplinary learning, education is a study in which a "whole" or "comprehensive" method, idea, topic, or text is developed by integrating multiple knowledge domains. It is a very powerful and effective method of teaching that crosses disciplinary boundaries and develops an interest in various critical subjects or curricular to broaden and deepen learning. Multidisciplinary education is a unique educational approach in which students are allowed to learn and explore their knowledge in various fields or various sectors.-Education

is not limited to a particular discipline. Its application in the development of students' study capacity and the enhancement of their skills in a variety of fields.

3. OBJECTIVES OF RESEARCH

1. To study the general meaning of "multidisciplinary."
2. To study the role of multidisciplinary in the educational sector.
3. To investigate the effects of multidisciplinary education in terms of benefits.
4. To investigate the negative effects of multidisciplinary education in the form of disadvantages in various sectors.
5. To study the limitations of multidisciplinary education in the sector.

4. RESEARCH METHODOLOGY

This is a fact-finding archetype. Research The research involves collecting information and taking feedback from students in all departments. Students studying arts, science, and management from their first year to their third year are included. This research paper is based on the sampling method. We collected sampling data from all departments. We select five students from each class. Then, after we had concluded the result and used it to further our research.

4.1 Sources Of Data: -

Data were collected from primary and secondary sources.

A. Primary Data

Data were gathered through discussions with all students who subscribed to streams.

B. Secondary Data

Secondary data were collected from journals and websites.

4.2. Sampling Size

Simple random sampling techniques are used to analyze and interpret data. Random Data were collected in this analysis. For this study, 45 students were chosen at random from all departments.

a. Only students in their final year of study are included.

b. Data analysis is limited to students majoring, in Arts, Commerce, and Science.

c. F.Y,S.Y,T.Y. and students are used in the data analysis.

d. At the time of data analysis, the student was between the ages of 19 and 22.

e. Some age factors exist, but streams differ. So in this research study, a simple random sampling method is used, and according to, it only 5 students are taken from each stream.

Multi-Disciplinary Education and Their Approaches:-

a.Multidisciplinary education means studying the same topic from different perspectives in more than one sector. It is also known as "cross-disciplinary" education. which indicates a desire to cross disciplinary boundaries. Multidisciplinary approaches are a method of curriculum integration that highlights the diverse perspectives, i.e., different disciplines that are related to different themes and issues. Multidisciplinary education is used to study the same topic in a multidisciplinary setting. During multidisciplinary education in colleges, students get to choose their favourite subject—and study it in a different way as per their application. Complementary subjects get limited knowledge, but choice-based subjects develop an interest in various topics that produce fruitful and valuable results. Finally, a more collaborative teacher-student relationship must be established to form a good collaborative team.

b: Reach within to discover passion:- Here, the keyword is "choice of subjects," but the advantages extend to personal growth. On one hand, a faculty member will have the power to innovate the usual teaching and learning processes, and on the other hand, students will be able to access a vast amount of e-content, which is used to help us realize their passion and their true purpose. As a result, the more e-content they consume, the more interested they are in learning more about their deeper study. Even when students are clueless about their passion initially, they can discover it during the teaching and learning journey. Thus, the combination of online education systems, such as a learning management system (LMS) integrated within the college ERP software, and methods that contain a multi-disciplinary approach can boost personal development. in students.

c: Pragmatism and Flexibility:- Multi-disciplinary education allows your students to understand the power of new ideas. It helps them to develop a pragmatic attitude by allowing them to decide which subjects they will select and what their possible benefits might be. They have time to deliberate, weighing the risks and benefits. Thus, a multi-disciplinary educational program brings pragmatism and flexibility to the table. It allows your students to generate their own paths by utilising their mental abilities. An effective teaching method places the difficult responsibility of interacting with a large number of students as a single unit on the shoulders of the teacher. He or she has to fully comprehend that he or she is dealing with students from dissimilar backgrounds, each with their own unique traditions of culture, upbringing, religion, attire, and language.

Advantages of a Multidisciplinary Education:-

1. **Holistic Understanding: -** One of the benefits of a multidisciplinary approach to education is that you get a more holistic understanding of the world. Rather than looking at individual departments and their subject matters separately, A multidisciplinary approach integrates parts of each department into the study programmes of the others. For example, the XYZ School of Management weaves Business Administration into the Economics programme and looks at Business Administration and Political Science as part of the Geography, Planning, and Environment program.
2. **Different Perspectives: -** New perspectives will help to develop better students (and professionals). Try to solve a puzzle for students' idea creation and come across a section that stumps you for discovering the magic of different perspectives. A multidisciplinary educational approach is similar to that, in order to discover how different professors integrate subject matter. So different perspectives and methods are used in multidisciplinary education to open the doors to different ideas and ways of understanding.
3. **Real-World Approach: -** multidisciplinary learning is not just an educational philosophy—it's a tangible way of understanding the world. When students are graduates, they work with people from across disciplines IRL, so they face practical issues. Compiling and collaborating with people from across the spectrum will help facilitate functional growth in the professional world.
4. **Collaboration Skills: -** Hopefully, any educational avenues used to emphasize the importance of collaboration will be used. However, one of the most important advantages of a multidisciplinary education is the idea of coming together to create a better whole. So effective communication with people across disciplines is integral to multidisciplinary learning. Understand their values and what motivates them when learning the same vocabulary. These skills will help to make connections, solve puzzles, and work synergistically with peers.

Disadvantages of Multidisciplinary Approach in Education:-

1. Distractions are prevalent in multicultural education. Sometimes, students may feel a little bit lost as they hop on to a variety of subjects and courses. The only thing that can save them from getting distracted is planning & keeping a little bycatch on their daily activities. As a faculty or educator, needed to have a university management system with an **advanced activity monitoring platform** such as a dashboard. The dashboard is regularly updated with student progress in day-to-day activities and is used to analyses students' progress reports. Whenever you feel daily going smoothly, you can always re-plan your online education imparting techniques!

2. No Master, Only Jack: There's a famous phrase: **"Master of all trades, Jack of none.** "It can manifest into reality and backfire on all plans for achieving the **best outcome for student learning.** However, if you have gained knowledge of everything, but haven't achieved expertise in one skill that matters the most, then there's no use for the skills as well. Students need to have **expertise** in one domain that they like. With a multi-disciplinary college education, faculties have to be extra careful when they evaluate the student's performance. They need to ensure students achieve mastery in one domain at least.

To explore more about multidisciplinary education & how a college ERP software or **university ERP software** can help you get in touch with many teams of educational ERP experts today!

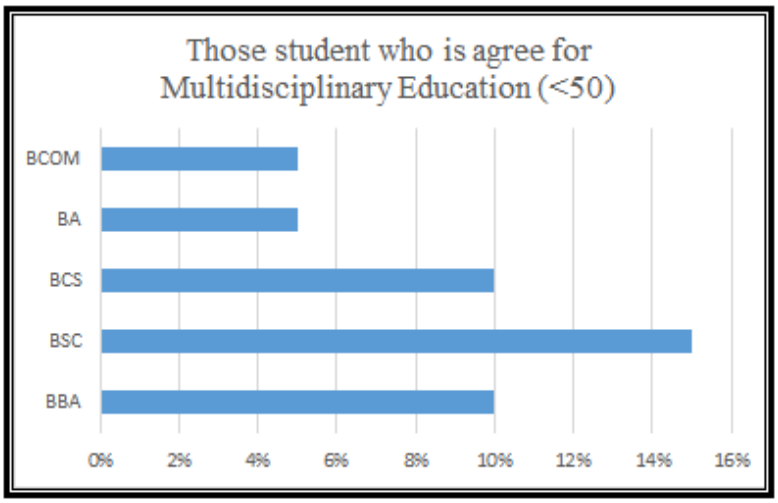
Advantages of Multidisciplinary approach in Education:-	**Disadvantages of Multidisciplinary Approach in Education:-**
The privilege to choose: Students get to choose their subjects, courses, and programmers from different institutes.	**Distractions: A variety** of subjects may make the students feel lost.
Reach Within to Discover Passion: Students can discover their interests during the teaching-learning journey.	**No Master-Only Jack: The** student may have gained knowledge of everything but not be a master of anything.
Flexibility and pragmatism: It allows students to pursue their own paths.	**May create confusion** The students may feel confused about choosing the subjects and courses.

5. Data Analysis and Interpretation

Data were collected from 45 students through the questionnaire and discussions. The analysis of the responses collected from the students is as follows.

Education-Related Topic Selection is compulsory or Choice-Based.

Stream	**<50**	**>50**	**Average**	**Agree**	**Not agree**
BBA	10%	65%	10%	10%	5%
BSC	15%	Agree	5%	15%	5%
BCS	10%	65%	15%	10%	5%
BA	5%	70%	10%	10%	5%
BCOM	5%	75%	10%	5%	5%


Those student who is agree for Multidisciplinary Education (<50)
BCOM
BA
BCS
BSC
BBA
0%
2%
4%
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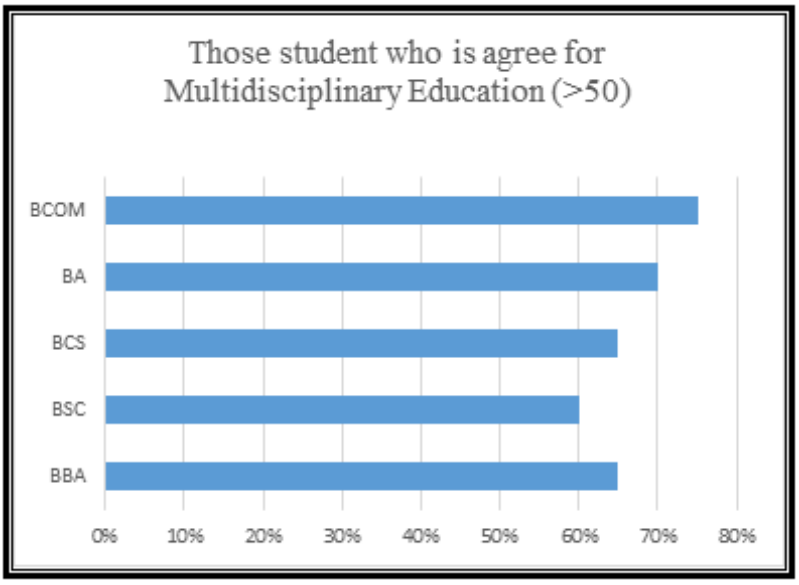
8%
10%
12%
14%
16%


Those student who is agree for Multidisciplinary Education (>50)
BCOM
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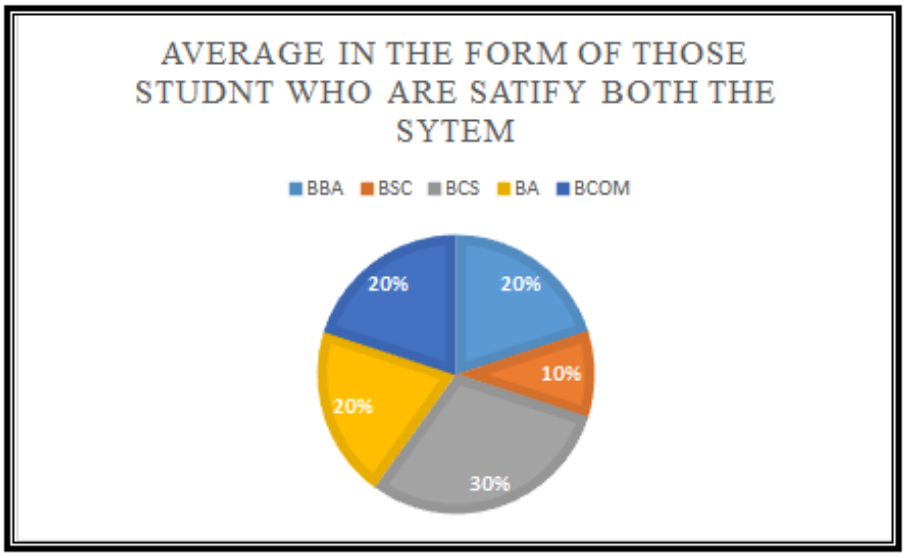
AVERAGE IN THE FORM OF THOSE STUDNT WHO ARE SATIFY BOTH THE SYTEM
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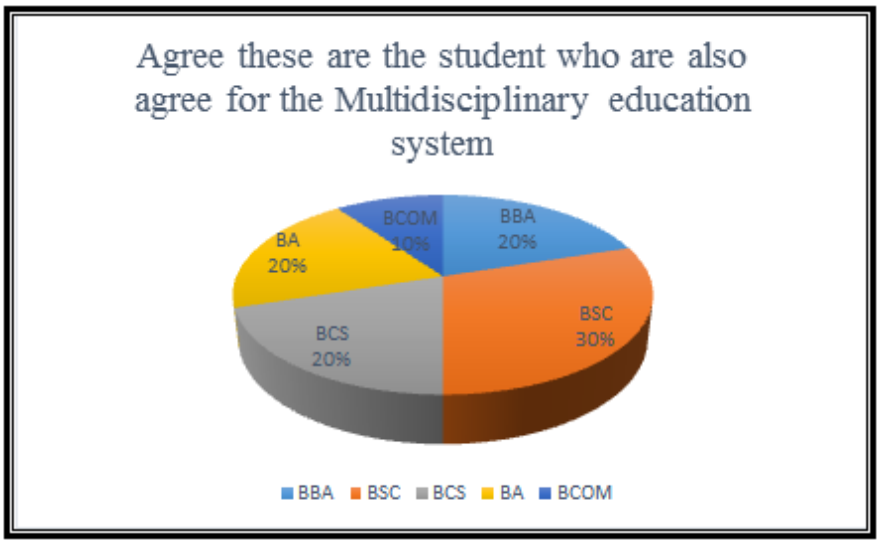

Findings:

An approach to curriculum integration that focuses primarily on the different disciplines and the diverse perspectives they bring to illustrate a topic, theme, or issue a multidisciplinary curriculum is one in which some topics need to be studied from the viewpoint of more than one discipline. Through a multidisciplinary approach, a student gains an arsenal of skills—problem-solving, critical thinking, time management, self-management, communication and writing, analysis and research methodologies, teamwork, and much more—that are easily transferable across work environments.

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CONCEPTUAL STUDY OF MULTIDISCIPLINARY TEAMWORK OF APPLIED PHYSICS IN A CHALLENGE-BASED LEARNING

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ABSTRACT: *A multidisciplinary approach based on concepts from sociology, educational psychology, statistical physics, and computational science is developed for the theoretical description of teaching-learning processes that take place in the classroom. The emerging model is consistent with well-established empirical results, such as the higher achievements reached working in collaborative groups and the influence of the structure of the group on the achievements of the individuals. Multidisciplinary teamwork is supported by the unique ways of thinking and approaching problems of the two disciplines. The findings also yielded individual (e.g., knowledge of control theory), team (e.g., disciplinary perspectives), and course factors (e.g., disciplinary connections to the challenge) that influenced multidisciplinary teamwork. Multidisciplinary teamwork is supported by the unique ways of thinking and approaching problems of the two disciplines. Implications contribute to future research and thinking for similar learning environments while improving student learning in multidisciplinary teams. Implications contribute to future research and thinking for similar learning environments while improving student learning in multi-disciplinary teams.*

Keywords: Multidisciplinary, teaching-learning process, multidisciplinary teamwork

INTRODUCTION

Science and engineering professionals are expected to work collaboratively in order to respond to societal challenges and contribute to sustainable worldwide growth (Accreditation Board for Engineering and Technology (ABET) 2021; Lassen and Nielsen 2011). In line with this, current practices in higher education put emphasis on students' use of different disciplinary backgrounds in teams. Students bring together the knowledge and methods of their disciplines as they work on complex, real-world problems (Schaffer et al. 2012). Recently, applications of challenge-based learning (CBL) have been increasing. Science, technology, engineering, and mathematics (STEM) departments are recognized as particularly compatible for CBL (Gallagher and Savage 2020; Leijon et al. 2021). CBL frames learning with: challenges using multidisciplinary actors, technology-enhanced learning, multi-stakeholder collaboration, and an authentic, real-world focus' (Gallagher and Savage 2020, 1). Working on societal challenges in multidisciplinary teams is a core characteristic of CBL courses (Membrillo-Hernández et al. 2019).

Teamwork enables students to learn not only from interaction with the content but also from interaction with team members of other disciplines (van Breukelen, de Vries, and Schure 2017). Research puts forth that learning occurs in multidisciplinary teams of undergraduate science and engineering students through exchanging knowledge and perspectives across disciplines and reflecting this exchange in design solutions (Bakermans and Plotke 2018; Ludwig, Nagel, and Lewis 2017; Rådberg et al. 2020). However, little is known about the factors influencing student learning during multidisciplinary collaboration. As stated in the previous studies, students at times find it challenging to engage in the learning process during multidisciplinary teamwork (Sharma et al. 2017). Focusing on the influencing factors can improve the quality of multidisciplinary collaboration and thus promote student learning (Heikkinen and Isomöttönen 2015; Schaffer et al. 2012). Furthermore, it is often suggested that multidisciplinary teamwork leads to better student learning outcomes compared to mono-disciplinary teamwork (e.g. Ludwig, Nagel, and Lewis 2017). Consequently, this study also examined how the students

benefitted, if at all, from multidisciplinary teamwork along with the influencing factors. This background gave rise to two research questions: '1. what are the facilitators and barriers influencing collaboration and teamwork between applied physics and engineering students in a Systems and Control CBL course?' and '2. what are the student learning outcomes connected to working in the multidisciplinary teams?'

Factors that Influence Multidisciplinary Teamwork:

Factors that influence multidisciplinary teamwork have more frequently been examined by health education studies (e.g. Almajed et al. 2016). Regarding undergraduate science and engineering students, the factors connected to learning experiences in multidisciplinary teams include the design problem, team composition, prior knowledge, positive team interaction, course materials, and personal characteristics (Aftab et al. 2015; Aloul et al. 2015; Debs et al. 2019; Keenahan and McCrum 2021; MacLeod and van der Veen 2020; Menekse, Purzer, and Heo 2019). Although these studies offer guidance for promoting better multidisciplinary teamwork experiences, only a few studies expressly undertook research to identify the factors influencing multidisciplinary teamwork (e.g. Aftab et al. 2015). According to Schaffer et al. (2012), for example, factors that influence learning in teams of students from multiple engineering fields are team composition, problem complexity, and prior experience in teams. rom a different yet a complementary perspective, based on a summary of the literature, Cutright, Evans, and Brantner (2014) outlined elements required for the development of a multidisciplinary team of STEM students as: a) a faculty leader knowledgeable on the different disciplines, b) team-building activities, c) students' individual skills to work in the team, and d) a project with goals and deadlines that links the disciplines.

There are different course contexts where science and engineering students can collaborate in teams such as capstone design, project-based and other multidisciplinary courses. Multidisciplinary teamwork is a common practice in CBL courses. Students apply the knowledge and methods of their disciplines to communicate and to solve open-ended problems. Multidisciplinary teamwork in CBL and similar project-based courses have positive impacts on students' skills development and learning of course content (e.g. Heikkinen and Isomöttönen 2015).

Challenge-Based Learning

There are concerns to sufficiently address societal problems, e.g. soil quality, sustainability as indicated, for example, by the National Academy of Engineering (2013, 3): the problems are no longer contained in one continent. They transcend disciplines. To this end, CBL emerged as an approach that uses knowledge from multiple disciplines to develop solutions to a grand challenge.

Previous research has been concerned with innovative instruction for science and engineering students, which included interdisciplinary problems and teamwork (e.g. Siam and Abdo 2020). Rooted in pedagogical theories and methods such as problem-based learning, project-based learning, inquiry-based learning, and collaborative learning (Leijon et al. 2021; Membrillo-Hernández et al. 2019), CBL suggests unique features to facilitate learning e.g. involving local communities, collaborating with external experts and stakeholders, and reflecting on societal impacts and values (Gallagher and Savage 2020; Malmqvist, Rådberg, and Lundqvist 2015; Rådberg et al. 2020). Learners identify the problem to address in connection with the global theme or issue they are presented with and construct their own conclusions (Membrillo-Hernández et al. 2019).

METHODS

The study includes multi-level cooperation and planning, carrying it out utilised the views of developmental work research (Engeström 2001, 2013; Galison 1997; Gorman and Clayton

2005) and the method of the design research approach (Baumgartner et al. 2003). Collaborative developmental work research means cross-border interaction and trading zones (Galison 1997), which involve a common space, shared objectives, joint language and a mutual exchange beneficial to all participants (Engeström 2013; Galison 1997; Gorman and Clayton 2005), as well as the joy of sharing knowledge with one another. This study follows the themes, 'the joy of sharing' and 'becoming animated', which mean that the designers have planned the different phases of the study with open minds, keeping the joy of sharing (thoughts and information) as the leading thread in every step of the study. In design research, the general goal is to unite empirical educational research and the theory-driven design of learning environments (Baumgartner et al. 2003; Juuti and Lavonen 2006). The aim is to find out 'how, when, and why educational innovations work in practice', so both parties, the designer (the researchers/educators and student-teachers) and practitioner (here, student-teachers and school pupils), play an essential role in the process (Baumgartner et al. 2003, 5). Moreover, the third party, the design artefact (the new teaching model, the energy game in this case), is developed during the cooperation. In this study, the success of the design work is evaluated by answering the second research question about the student-teachers' own learning during the course. The data used in this article were gathered in the form of learning diaries. The student-teachers were guided to write personal learning diaries during the course and about the following topics: (1) their understanding of the concept of energy, (2) their conception of the multidisciplinary teaching of physics, crafts and drama from the perspective of the concept of energy and (3) descriptions of the four game tasks designed in their small group and of their learning during the course. They were asked to reflect on all of the topics. The data used to analyse the learning diaries and present the results of the content analyses were anonymous, so it was not possible to identify any of the student-teachers. The data were analysed in the following way: (1) the learning diaries of the student-teachers participating in the course were read several times; (2) different descriptions about learning were selected from the data; (3) similar types of descriptions of learning were classified into the same categories; (4) these classes were named, and their contents were reduced; and (5) classes of similar content were included in the same table, and their common meaning was named. This process followed the general principles of an empirical-based content analysis (Patton 2002; Tuomi and Sarajärvi 2009) and was inductive by nature. This means that the researchers' reasoning process was directly based on the empirical data in the learning diaries (Tuomi and Sarajärvi 2009, 95–100). In the case of the other data, the multidisciplinary teaching model created during the course, a descriptive analysis was performed.

CONCLUSION

The multidisciplinary teamwork in a CBL course was beneficial for student learning despite some barriers to collaboration. There are also some investigations shows that students benefitted more with regard to knowledge acquisition.

Conceptual finding on differences in learning outcomes for students connects to perceiving team composition and the disciplinary connections of the design challenge as barriers to multidisciplinary collaboration. Although the design challenge allowed for an exchange of perspectives between students, there is benefit in a stronger connection to concepts. A more even distribution of students in the teams together with revising the challenge and guiding students' problem definitions such that knowledge input is also needed might facilitate students' being reliant on each other and thus generate more learning outcomes. Despite these barriers, it is vital that the results showed learning outcomes associated with awareness of different disciplinary ways of thinking. The results collectively suggest that the students first gained this recognition and later this gain was interpreted as a facilitator of multidisciplinary collaboration. On previous claims, (Keenahan and McCrum 2021; Ludwig, Nagel, and Lewis 2017) students' improved understanding of each other's profession during teamwork is an important contributor

to learning. The findings for the learning outcomes taken together with the identified factors are interpreted as an indication that perspectives and approach to problems was useful for multidisciplinary teamwork and not necessarily knowledge.

In the final discussion: a) multidisciplinary teamwork contributes to students' deepening their disciplinary practices while acquiring content knowledge of the other discipline, b) physics and engineering students' unique ways of thinking and approaching problems is a significant facilitator of teamwork, c) students in multidisciplinary teams can rely on both the perspectives and the knowledge of the represented disciplines, d) tutor guidance, interim team presentations, and online channels and materials are helpful for communication across disciplines, and e) the course can benefit from a balanced team composition and challenge with regard to knowledge, more time and coaching for problem identification. Future studies can verify the identified factors across a range of course contexts.

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POTENTIAL OF CHEMISTRY IN HIGHER EDUCATION AND CHALLENGES IN THE MULTIDISCIPLINARY APPROACH OF THE NATIONAL EDUCATION POLICY 2020 IN INDIA

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ABSTRACT
India's government just unveiled its National Education Policy 2020. Some challenges in higher education, particularly those involving multidisciplinary approaches, were not adequately addressed by earlier educational programmes. It is important to design an education policy that takes these difficulties into consideration in order to get better results in terms of creativity, the growth of critical thinking, decision-making skills, and problem-solving abilities. A multidisciplinary education would aid in a person's overall growth. In order to provide a multidisciplinary education, this article discusses the tremendous potential of incorporating chemistry into other subjects. The researcher used a philosophical research approach to explain both life and educational philosophy. A difficulty in multidisciplinary education; it could be simpler to stray from the main learning goal, no mastery in any subject and it may create more confusion in choosing the subjects and courses as well. The originality of this work is in recognising the value of a multidisciplinary approach to teaching chemistry in today's educational system and curricula with other subjects. The importance of a multidisciplinary educational approach for survival, which is the ultimate goal of all education, will then be clear to the readers.

Keywords: Multidisciplinary education, chemistry, Correlation of Chemistry, Integral development

INTRODUCTION
Education, educational research, and the formulation of public policy are all closely related. Any country's suggested educational policies are the result of in-depth analysis of the country's educational system, and India is no exception. On July 30, 2020, the National Education Policy (NEP) 2020 was published [1]. The National Policy on Education, 1986, will be replaced by it. In order to ensure that everyone has access to an education, the NEP makes several important recommendations. The Indian government has announced the New Education Policy 2020 in an effort to maximise each individual's abilities and potential. In the context of virtual and international education, policymakers have struck a balance between the historical legacy of Indian education and the potential career paths for students. The decision-makers "provide inclusive and equitable quality education and encourage chances for all to learn throughout their lives." The goal of the strategy is to ensure that individual can live independently after completing the bare minimum education.

Chemistry is a very important area of study. Chemistry is the study of the atoms, molecules, and ions that make up matter as well as their traits, structures, behaviours, and interactions. Because atoms and molecules make up everything, we can observe chemistry everywhere. Students who study chemistry can learn about the scientific method and improve their communication, logical reasoning, critical thinking, and problem-solving abilities. A multidisciplinary curriculum examines the same subject from the perspectives of various academic fields. The goal to bridge disciplinary boundaries is sometimes described using the terms multidisciplinary and cross disciplinary interchangeably. Chemistry is multidisciplinary by nature and contributes to all other scientific fields. Therefore, multidisciplinary chemistry is for you if you value chemistry's broad application and don't want to limit yourself to concentrating on a too specific area of study. While remaining within one discipline's a confine, multidisciplinary draws on expertise

from several fields. Multidisciplinary examines, combines, and harmonises connections between disciplines to create a well-resolved whole. As we previously stated, chemistry, physics and biology have a close link [2]. Additionally, the development of atomic theory greatly benefited from this link. A subfield of chemistry called physical chemistry aims to investigate the occurrence of events that connect physics and chemistry. The study of biological processes at the cellular and molecular level is known as biochemistry. Around the turn of the 20th century, scientists joined chemistry, physiology, and biology to study the chemistry of living systems, and it became a distinct field of study [3].

Since the demand and results from education have altered, the educational system is changing quickly. A person cultivates various intelligences and possibilities in their mind. A person is the mine of all possibilities; a wise person can be a sportsman, an engineer can be artist and a chemist can be a philosopher. "Realization of excellence that is already in man" is the main aim of multidisciplinary education. He will undoubtedly make a significant contribution to the success of his motherland because a nation's human resource is its greatest asset. Therefore, the multidisciplinary approach altered not only the perspective of current Indian education but also that of global education [4]. In order to satisfy his need for information about historical educational policy, the current researcher carefully read the NEP 2020 report with multidisciplinary education and related literature.

OBJECTIVES

1) To know importance of all round development of person through multidisciplinary education.
2) To know the relevance of chemistry in multidisciplinary approach in contemporary Indian education.
3) To know the challenges in implementation of multidisciplinary education

METHODOLOGY

The current researcher has opted for a philosophical approach to research in order to develop her point of view on NEP 2020's multidisciplinary approach to education. To find out more about the multidisciplinary education in NEP 2020, secondary data is used. The current study project uses an exploratory methodology. Numerous online resources and publications have been cited.

MULTIDISCIPLINARY EDUCATION

The human being is the wellspring of all possibilities, and if given the necessary education and training, he can accomplish anything. The calibre of the human resource a nation develops determines its progress, prosperity, growth, and development. And it is believed that the state is in charge of ensuring the individual's education, training, growth, and development. The basic notion that all areas of creative human endeavour, including science, math, professional and technical studies, and soft skills, should be regarded as "arts" has its roots in India. Multidisciplinary refers to the incorporation of several or diverse disciplines within a single curriculum. A student who takes a multidisciplinary approach develops a wide range of abilities that are applicable in a variety of employment settings, including problem-solving, critical thinking, time management, self-management, communication and writing, analytical and research approaches, teamwork, and much more [5].

As stated, NEP 2020 aims to "grow all human capacities—intellectual, aesthetic, social, physical, emotional, and moral—in a coordinated manner." With the aid of such education, people will be better-rounded and have the necessary 21st century skills in the arts, humanities, languages, sciences, social sciences, and professional, technical, and vocational fields. They will also have an ethical sense of social engagement, soft skills like communication and discussion, and a rigorous specialisation in a particular field. A person will become a real human being with

all potential, regard, and prosperity thanks to the holistic education provided by NEP 2020. A good and perfect citizen will be produced for the state. NEP-2020 has suggested a curriculum that will aid in the child's overall development while taking all of these factors into consideration. Now we will see the importance and correlation of chemistry with other subjects and that is shown in fig. 1.

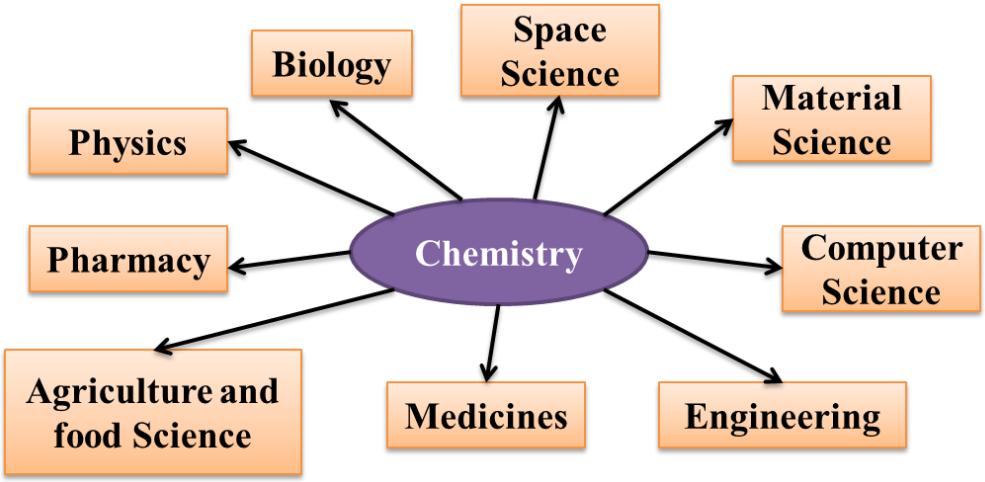

Fig. 1 Correlation of Chemistry with other subjects

Correlation of Chemistry with other subjects is as follows

Chemistry with Biology:
The effectiveness of chemistry as a tool for comprehending the natural world has led to its incorporation into a number of biological disciplines. Though they still largely draw from chemistry, pharmacology, biochemistry, and particularly molecular biology have long since transitioned to separate fields in their own right. Their emphasis on viewing biological processes as systems renders it impossible to teach every aspect from a precise chemical perspective. These chemistry-related bioscience courses have been deeply incorporated into other fields of biology, bioengineering, and biomedicine curricula due to their practical value [6].

Chemistry with Physics
In several areas of current research, Chemistry offers a distinctive viewpoint that supports Physics. Both of these branches deal with the study of matter, but their methods and areas of interest are different. Anything with mass and spatial requirements is considered matter. While chemistry examines the components of matter, physics concentrates on how matter interacts. Chemical physics, which sits at the intersection of physics and chemistry, differs from physical chemistry in that it places a greater emphasis on the fundamental concepts and ideas of physics. Physical chemistry investigates the physical aspects of chemistry [7].

Chemistry with Mathematics:
Science makes extensive use of mathematics, which is critically fundamental in order to explore key chemistry ideas. These calculations, and consequently chemistry itself, will be very challenging without some elementary mathematical knowledge. Exponents, scientific notation, orders of operation, algebra, unit conversion, and dimensional analysis are some of the mathematical elements of chemistry [8].

Chemistry with Materials Science:
Chemistry is more concerned with chemical reactions, whereas materials science is more interested in understanding the structure of materials. But there is a lot of overlap among the disciplines. Chemistry is one of the many sciences that are combined in the study of materials

and their applications by the field of materials science. In order to understand the bonds, structures, and properties of existing materials and to consider potential applications, we can study them. New materials with the desired qualities can also be created [9].

Chemistry with Medicine:
The creation of novel medications uses chemistry, which involves both chemical production and compound analysis. Design, analysis, development, and synthesis of medications used as therapeutics are all part of chemistry. Chemistry is essential for understanding diseases, medications, and the effects of drugs on the human body. Surgery material preparation and use are influenced by chemistry (sutures, artificial skin, and sterile materials). The sutures used in many procedures today disintegrate in the body over time, so they don't need to be removed [10].

Chemistry with Pharmacy:
Pharmacy students gain a broad understanding of pharmacological modes of action, structure-activity relationships, acid-base and physicochemical properties, and absorption, distribution, metabolism, excretion, and toxicity profiles through the study of medicinal chemistry. Chemistry expertise aids pharmacists in determining the ideal temperature, humidity, and light intensity for each type of drug. They can use the half-lives of the compounds in their drugs to determine expiration dates [11].

Chemistry with Computer Science:
A subfield of chemistry called computational chemistry makes use of computer modelling to help solve chemical issues. It computes the structures and characteristics of molecules and materials using theoretical chemistry techniques that are integrated into effective computer programmes. Coding is a very practical skill, particularly for chemists. University of Liverpool chemists use their programming expertise for a variety of purposes. Coding allows for the prediction of advantageous elemental combinations that can be synthesised into products, considerably expediting the search for novel materials. Without the use of chemistry and collaboration with chemists, chemical processes like the manufacture of fibreglass and chemical etching would not be possible. Chemists and computer engineers must understand chemistry as a result [12].

Chemistry with Astronomy:
Astrochemistry is the study of the distribution, reactions, and interactions of molecules with radiation across the universe. The field combines aspects of chemistry and astronomy. Astrochemistry can refer to both the interstellar medium and the solar system. The chemical makeup and dynamics of stars, planets, comets, and interstellar medium are studied by astronomers [13].

Chemistry with Engineering:
Chemistry is the core of all science, and engineering requires practical science. The more chemistry knowledge an engineer has the better. Future solutions to global challenges and issues will necessitate a thorough understanding of chemistry. For civil engineers, chemistry is a crucial foundational subject because it helps them understand the qualities of building materials, the natural environment (atmosphere and solutions), and how building materials interact with the environment (corrosion of metals, durability). Chemical engineers are familiar with the basics of chemistry. Chemical engineering is the study or creation of chemical reactions that efficiently transform raw materials into finished products, such as more usable materials or energy [14].

Chemistry with Agriculture and Food Science:
Agriculture deals with the generation of organic goods using both organic and inorganic inputs, whereas chemistry works with molecules, both organic and inorganic. Thus, from the molecular

to the organ level, chemistry is a fundamental component of agriculture [15]. Chemistry is crucial to the food processing industry. The study of chemical reactions and interactions between all biological and non-biological components of foods is known as food chemistry. It provides information on alterations that occur to food during preparation and storage [16]. Summary of the above discussion is represented in Fig. 2.

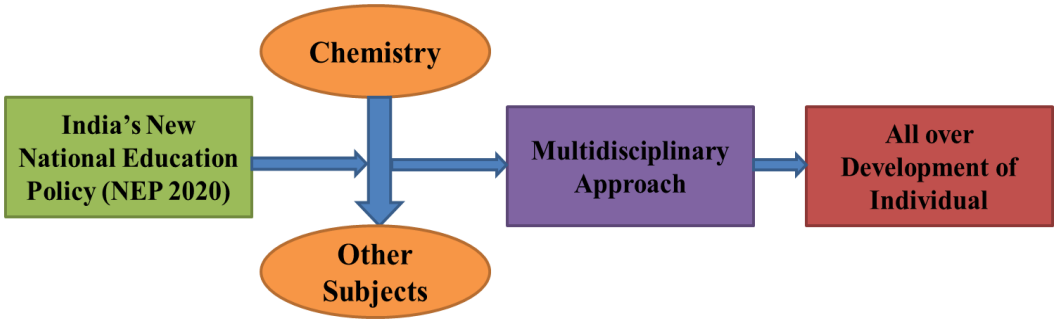

Fig. 2 Summary of the discussion

Challenges in implementing multidisciplinary Education

- **Distractions:**

It may be easier to become side-tracked from the ultimate learning objective. Your students can occasionally feel a little disoriented as they sign up for a variety of subjects and courses.

- **No Mastery in Any Subject:**

There is no purpose in having other abilities if you have learned everything but lack proficiency in the one area that matters the most. Your students must be experts in a subject matter that interests them. College faculties must be very vigilant while assessing the students' performance in multidisciplinary courses. They must make sure that at least one subject area is mastered by their students.

- **Possibly Leading to Confusion:**

The students may experience confusion when selecting their courses and subjects.

Writer thought that these are some challenge in implementing the multidisciplinary education in India according to National Education Policy 2020.

CONCLUSION

India's education has made history with the New Education Policy 2020. India is attempting to raise educational standards and quality to par with western or worldwide standards. The human brain is capable of numerous forms of intelligence. If a person's skills are developed, he or she can satisfy their own desire on their own. A person's overall development will not only enhance his or her personality and family situation but also contribute to the prosperity of the homeland. Chemistry can act as a link between other academic disciplines, giving students the chance to advance their hard and soft skills as well as their capacity to express ideas across disciplines. Therefore, it is crucial to integrate chemistry into other disciplines in multidisciplinary education. A multidisciplinary approach fosters critical thinking and the ability to connect one discipline to another. In India's educational history, a new era will begin with the adoption of NEP 2020. However, there are some difficulties in implementing the multidisciplinary education, including the possibility of student distraction, the possibility that they may have learned everything but not be experts in anything, and the possibility that students may experience confusion when selecting their courses and subjects.

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A STUDY OF THE LEARNING OUTCOMES FOR GRADUATES IN MULTIDISCIPLINARY EDUCATION

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ABSTRACT
A study of learning outcomes is essential for graduates because it is a fruitful result of multidisciplinary education. Students are required to learn and understand all the concepts with the help of teaching methods. Individual qualification can be easily improved if learning outcomes are clearly specified. Learning objectives for programmes and courses are easily defined, and students can create their own perspectives with the help of multidisciplinary education. New and innovative teaching methods must be used while teaching and participatory and experiential learning will result in the brainstorming of all the students and the overall personality development of the students. Learning outcomes like communication skills, lifelong learning, research-related skills, and value education are in demand in this era, and candidates must shape their overall personalities to face the challenges of this dynamic world.

Keywords: learning outcome, teaching methods, multidisciplinary education, skills, higher education.

1. INTRODUCTION
India has a faster growing economy, so for consistent sustainable development of the country, a new form of education is required that is acceptable and recognized all over the world. Students must provide updated and implementable knowledge and need to reduce the gap between theory and practical knowledge. Learning outcomes must be integrated with industry expectations of graduates. India is on the second position in the world in human resource so our capability to provide quality education to youth regulate the future our country. Learning outcomes will reduce the gap between learning and practical implementation. The world is ever changing in all fields of education and business. All youth must be capable of fighting to survive in this competitive world.

2. REVIEW OF LITERATURE

1. Dr. Kishore Roy, 'Multidisciplinary Approach in Teacher Education Programme: A Study'

Research analyzed in this paper that the teacher education program will develop the overall personality of teacher and gain knowledge of all the fields. The objective of the study was to understand the positive impact of multi-disciplinary approach on teacher education and to provide the valuable suggestions. He concluded it is impossible to do overall development of candidates without multidisciplinary education system.

2. Damayanti Sen, 'Higher education policies: The Indian experience since independence'

In this article author identified the analysis of Indian and British education system from independence till 2015. The objective of the study was to find out impact of five years plan on education system. She concluded that government need to transformed education system.

3. Balvinder Shukla, Manoj Joshi, R Sujatha, T Beena, Harish Kumar, Demystifying Approaches of Holistic and Multidisciplinary Education for Diverse Career Opportunities: NEP 2020.

In this article an author analysed holistic and multidisciplinary education with respect to NEP 2020 & fulfilled the industry requirements. The objective of the study was to understand the

diverse career opportunities in multidisciplinary education. They concluded that role of teacher is very important in design and implementation of curriculum.

3. OBJECTIVE OF RESEARCH

1. To study the learning outcomes for graduates.
2. To find out different teaching methods
3. To understand the positive impact of multidisciplinary education.
4. To study impact of teaching methods on student's learning outcome

4. RESEARCH METHODOLOGY

The current work approach is organised and includes an exhaustive literature review. The secondary data gathering is the foundation of the research study.

4.1 SOURCES OF DATA

Data were collected by using secondary sources. Secondary data were collected from journals and websites & draft of education policy.

5. LIMITATIONS OF STUDY

1. A study is based on the draft of the national higher education qualification framework only.
2. Actual results of learning outcome will be understood after implementation of multidisciplinary education.

6. FIGURES & TABLES

Sr. No.	Learning Outcome	Teaching Methods
1.	Discipline and discipline-related fields of learning	Ice-breaker activities, preliminary presentation, Open Book Test, Industrial Expert Lectures Competency-Based Learning
2.	Complex problem-solving	Prepare a business plan, Workshop Problem solving session, Survey, Brainstorming, Flip Classroom, Drills, Puzzles, Diagnostic session Problem based learning
3.	Critical and Analytical thinking	Case Studies, MCQ Test, Caselets solution, Practical Field visit / industrial visit, Mini Project, Inquiry-Based Learning
4.	Creativity	Chart preparation, PPT presentation, Essay writing Poster Presentation Model Competition , Photography Exhibition, Drama, Design thinking
5.	Communication Skills	Ice-breaker activities, Group Discussions, Role Plays Interview, Online training lecture, Oral or viva, Storytelling , Debate
6.	Research-related skills	Research paper, Research Project
7.	Coordinating/Collaborating with others	Group presentation, Group Project report writing Cooperative Learning

8.	Leadership readiness/qualities:	Gasification, Teams games and Business games Mentoring , Involvement of students in college committees
9.	Digital literacy and skills	Computer lab work on data processing and data analysis, Movie Screening/ Video Sessions Project based on technological inter interface, smart classrooms
10.	Multicultural competence	Cross-cultural Differences & Managerial Implications
11.	Value inculcation	Value added course
12.	Autonomy, responsibility and accountability	Internship, Personalized Education
13.	Environmental awareness and action	Add on and certificate course
14.	Community engagement and service	NSS, SDO
15.	Empathy	Value added course

Source: draft of national education policy 2020

7. DISCUSSION

1. Discipline and Discipline-Related Fields of Learning

It includes extensive knowledge that is designed to accommodate students' mental or grasp range. Logical and consistent knowledge will be provided. Students are able to understand their area of learning and the practical implementation of knowledge and current trends in their chosen field. Per formative knowledge is required to understand entrepreneurship information and attitude, which also include start-up, survival, and new types of organizations. Students will inculcate skills required in their chosen field, like self-management and problem-solving. They need to understand the practical use of knowledge and use it for personal gain as well as social benefits.

2. GENERIC LEARNING OUTCOMES

a. Complex Problem-Solving

The ability to solve known and unknown problems encountered in real-world situations. This is the decision making process in internal and external environments to solve problems in a creative way to achieve life goals. Students must first define the problem, then brainstorm ideas, choose a solution, implement the solution, and review the decision.

b. Critical and Analytical Thinking

Students must think critically, and they need to analyze and evaluate any method or process. They must research assumptions and construct arguments. Then they must comprehend the argument's logical flow. Then collect data from available resources and interpret it with some practical examples.

c. Creativity

They need to think and act in a diverse way about some of the situations. After a critical evaluation, they need to find a simple solution. Try to act in a creative way and learn to look at the problem from an overall perspective. Out-of-the-box thinking is required to find an unknown solution to the problem.

d. Communication Skills

They need to develop the habit of listening and reading, understanding in their own way, and learning to present that knowledge in front of an audience. They must develop the ability to

think creatively and differently, as well as the ability to express their ideas. They also must learn how to convey the message by considering gender sensitivity and other social groups.

e. Research-Related Skills

Students must have good monitoring and investigation skills to ask the questions to clear their doubts. They need to identify problems and learn how to write research summaries. They also have the ability to design relevant research questions, formulate hypotheses, test hypotheses using quantitative and qualitative data, establish hypotheses, make inferences based on the analysis and interpretation of data, and predict cause-and-effect relationships as well. They need to understand all research methodologies in detail & capacity to develop the statistical and mathematical tools and techniques for evaluation.

f. Coordinating/Collaborating with Others

Students must understand the importance of teamwork and learn how to maintain cooperation and coordination within a team. They need to learn how to work effectively by protecting the common interests of the group and contributing their own skills for a better result.

g. Leadership Readiness/Qualities:

The candidates must learn the given work of the team and how to do the planning, organizing, directing, and controlling of the given project. They need to design a motivating vision and learn to inspire group members to achieve that goal. It also includes the implementation of management skills and directing people in the appropriate direction.

h. 'Learning How to Learn' Skills:

Students must learn about self-concept and self-evaluation; they must understand self-development along with socioeconomic and cultural factors. They need to understand lifelong learning, understanding cultural differences, adaptability, being comfortable with change, problem-solving ability, and critical and comparative thinking.

i. Digital Literacy & Skills

They need to learn to use ICT for fast and accurate task completion. They must be able to obtain, understand, and apply a wide range of information resources, including software for data analysis and interpretation.

j. Multicultural Competence

They must acquire multi-cultural practices and learn how to have a global competence personality with regard to diversity. They need to understand how to play a part in multicultural groups and how to deal with them appropriately.

k. Value Inculcation

They need to learn how to humiliate constitutional, humanistic, ethical, and moral values like truth, goodness, love, nonviolence, peace, temperance, and citizenship, as well as other universal human values. They must know how to be responsible global citizens, understand global issues, and try to contribute as active supporters of a tranquil, tolerant, inclusive, secure, and long-lasting society. They must plan for and carry out ethical issues.

l. Autonomy, Responsibility & Accountability

Students must focus on self-learning and self-study to acquire knowledge and skills. Self-learning is useful for gaining knowledge and skills, and it is simple to improve understanding based on qualifications. They must work independently on projects, find out the resources required for projects, and try to complete those projects within a specific time frame.

m. Environmental Awareness & Action

Students must be aware of environmental issues, climate change, and pollution. They must devise novel solutions to the aforementioned problems. Recycling and reuse techniques must be

used for effective waste management, biodiversity conservation, forest and wildlife management, and long-term development.

n. Community Engagement and Service

Initiatives such as NSS and SDO must be more innovative in order to engage a larger number of students in social service. Participation of youth in social reform resulted in societal well-being. The initiative, like national integrity and local area advantage, helps identify the cultural heritage of a particular place.

o. Empathy

Students must comprehend the approach and point of view. They must understand the feelings of other people and the community and try to behave without creating discrimination.

8. FINDINGS OF THE STUDY

1. It is required to keep more focus on complex problem solving, critical and analytical thinking, creativity, leadership, digital literacy.
2. Learning outcomes like Autonomy, responsibility and accountability, Environmental awareness and action, Community engagement and service, Empathy is essential in new education system.
3. Multicultural competence, Value inculcation, Autonomy, responsibility and accountability are required to develop the global competency among the candidates.

9. CONCLUSION

Students will develop an overall personality if more focus is kept on learning outcomes and teachers are required to develop the skills to plan and organize the teaching methods. All of the learning outcomes will help the individual human being develop and become a good citizen of society, as well as fight and survive in the new world. To achieve the desired learning outcomes in students, all of these teaching methods must be implemented with sincere efforts, and students are required to develop the learning attitude that will result in a bright future for them.

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PECULIARITY AND IMPACT OF MULTIDISCIPLINARY APPROACH TO EDUCATION UNDER NATIONAL EDUCATION POLICY -2020

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ABSTRACT
The most potent tool for influencing change in the world is education. The right to Education belongs to every Human Being. Education is just like a human being's fundamental right. It makes our lives better. It offers a novel perspective. India's ground-breaking National Education Policy (NEP) was unveiled by the government of India's education ministry on July 29, 2020 with the goal of enhancing learning. The nation's education policy aims to improve education at all levels, from elementary to higher education. This article looked at the introduction of vocational training for school students using the multiple-choice option. The 5+3+3+4 education system has replaced the 10+2 system. The National Education Policy (NEP) has incorporated critical thinking, communication skills, internship and self-evaluation skills. Board exams have also been made easier. The researcher's goal is to learn about the uniqueness and impact of a Multidisciplinary approach to Education. The general survey of Commerce, Arts and Science students is the foundation of this study. The characteristics and Effects of a Multidisciplinary approach to education under National Education Policy (NEP) are described by the researcher. Simple Random sampling techniques were used for collecting data. Data was collected through a survey. Randomly 160 students were selected as a sample from Arts, Commerce and Science students. NEP contributes to the overall development of individuals, encourages online activity and enhances the quality of education. Global education and urban and rural development benefit from Interdisciplinary to National Education Policy. National Education policy helps to enrich your inner Talent. This policy helps not only for development of Rural and urban areas but also it plays a very important role for providing quality education to male students, female students, as well as transgender students and for minorities students also. National Education Policy (NEP) includes along with traditional teaching it also includes online learning so it will help to get knowledge of technology also. It also provides online learning platforms, virtual libraries and virtual labs.

Keywords: Peculiarity, Impact, Rural and Urban Development, Employment Generation

INTRODUCTION
Food, Clothes and Shelter are the three most important necessities for survival. However, education is essential for survival in this competitive environment. It is society's foundation. Everyone has the right to an education. Knowledge, self-assurance and the development of personality and attitude are all the benefits of education. It not only shows what is good and bad, what to do and what not to do, and how to become a better citizen, but it also provides stability in life. Education is the driving force behind the development of every society. Multidisciplinary refers to the blending of two or more academics or professional specialists. A student who takes an interdisciplinary approach develops a wide range of abilities that are applicable in a variety of employment settings, including problem solving, critical thinking, time management, self-management, communication and writing, analytical and research approaches, teamwork etc. Education is the most precious instrument for social and Economic Transformation.

India's ground-breaking New Education Policy was unveiled by the Government of India on 29 July, 2020 with the goal of improving Education, and also providing quality education at a price that is affordable. Transformational Improvement from lower to higher education levels and Globalization of Education from Primary to higher education are the Primary goals of National

Education Policy (NEP). It helps to enrich your inner talent. There are a lot of advantages to National Education policy. It establishes a national mission on fundamental literacy and numeracy promoting hidden talent of students. It provides the benefit that we can learn up to 5 standards in our mother language. It also provides online learning platforms, virtual libraries and virtual labs. We can learn everything sitting at home only because of National Education Policy. It reduces cost, saves time, provides personalized education, enhances time management skills and the main important advantage of National Education Policy (NEP) through online learning is they provide immediate tests and also provide exam results immediately. Therefore, it has become easy to understand one's own mistake and to change as soon as possible. Virtual libraries are also an important advantage of National Education Policy, we can read books anytime, anywhere, at any moment. National Education Policy (NEP) includes all necessary policies that help to provide foundation literacy, equal opportunities and numeracy. National Education Policy plays a very important role for the development of women as well as gender equality.

National Education Policy (NEP) provides for setting up a Gender Inclusion Fund (GIF) to build the nation's capacity to provide equitable quality education for all girls as well as transgender students. This fund will be used to provide quality education to all i.e., men, women as well as transgender also. It also focuses on ensuring facilities, secure and hygienic toilets. Besides toilets, hostels are facilitated for girl students. It also focuses on 100% enrollment of girls in schooling, providing education to transgender also. It helps to improve leadership qualities, increase confidence by providing quality education, providing knowledge to all men, women as well as transgender. It also helps minority students. All minority students have the right to take education. In National Education Policy (NEP) it also provides advantages for minority students. Internationalization or Globalization of education is possible with the help of Multidisciplinary approach in National Education policy (NEP).

In this article, researchers examined the ways in which a multidisciplinary approach to education contributes to individuals' overall development. The quality of education can be improved through Interdisciplinary Education. It has a Significant Impact on people's overall development and offers numerous benefits. It is crucial to the growth of the country's economy as well as the growth of its rural and urban areas. It focuses not only on providing education but also on providing High Quality Education for students, vocational training has been made available in Multiple Formats. National Education Policy (NEP) has included internship, critical thinking, communication skills, and technical skills. This article examines the impact of Multidisciplinary Approach to Education under New Education Policy has on the overall development of Rural and Urban Populations. With the help of the National Education Policy, it is possible that, if we are in science stream and if we want to come in commerce stream or any other field, we can change our stream or field easily. Or if we are interested in biology as well as accounts or management then also we can learn both fields and degrees jointly. This is helpful for Agriculture. We can use both science and management so it helps to increase productivity as well as income and that leads to an increase in the Gross Domestic Product (GDP). Fresher's will also understand that agriculture is also the best option to choose the career instead of choosing any other career. This will help for rural development and it also provides employment generation. This will become possible only because of the National Education Policy (NEP).

OBJECTIVE OF THE STUDY

1. To Study the National Education Policy.
2. To Understand the Need and Advantages of National Education Policy.
3. To Know the Importance of Multidisciplinary Approach Towards National Education Policy.

4. To Study Pros and Cons Feedback of Students Regarding Multidisciplinary Approach to Education.

Hypothesis

1. Education encourages every society's development and progress.
2. Humans have a fundamental right to education.
3. The Multidisciplinary approach to NEP 2020 contributes to the overall development of rural and urban populations.
4. Its goal is to improve education at all levels, from the elementary school level to the university level.

RESEARCH METHODOLOGY

This Research Strategy is Fact-Finding. Surveys Formed the Basis Research. The Arts, Commerce and Science students were conducted to find out how they feel about Multidisciplinary approach to Education under National Education Policy. Additionally, Supplemental Data is collected from a Number of websites.

Source of Data

Data were collected by using primary and secondary sources. Through the questionnaire and Discussion with Arts, Commerce and Science Students, Data was Gathered. Questions were sent to Arts, Commerce and Science students. Secondary Data was collected from various websites, e-articles etc.

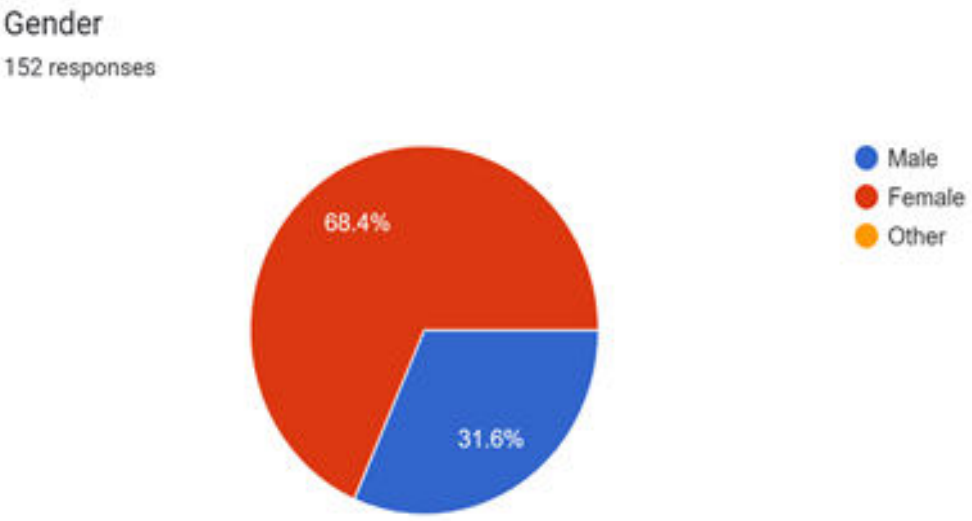
Sampling Size

Simple Random sampling techniques were used for collecting data. Data was collected through a survey. Randomly 160 students were selected as a sample from Arts, Commerce and Science students.

Data Analysis and Interpretation

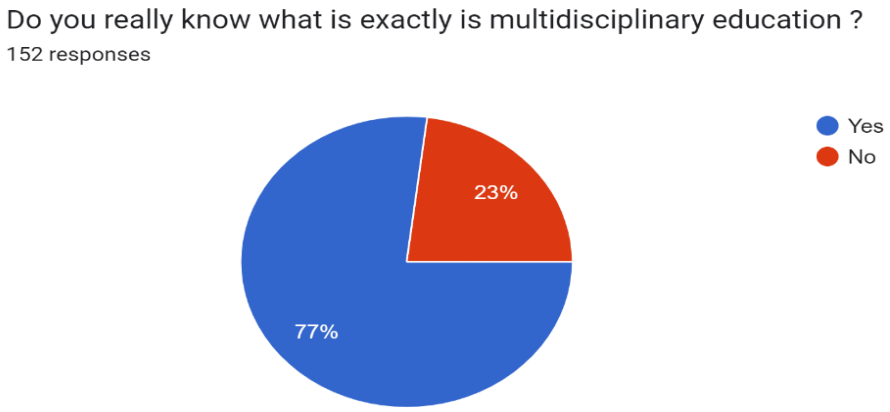
Data was collected from 160 students through the questionnaire. The analysis of response is given as follows.

1. Age of Student



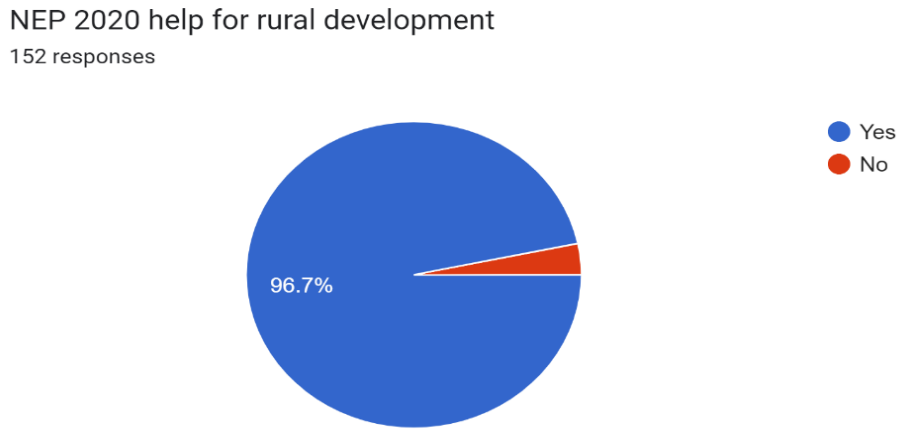
This pie chart indicates 68.4 % female students given the response and 31.6 % male students giving the response.

2. Do you know what exactly Multidisciplinary Education is?



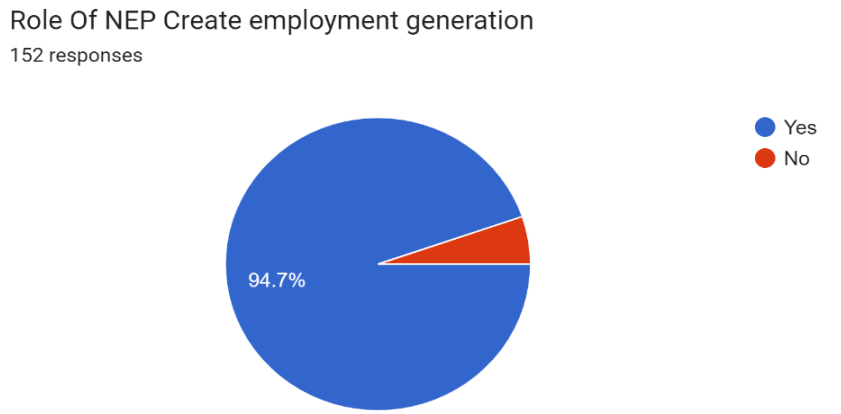
This pie chart indicates that 77 % of students know the meaning of Multidisciplinary Education. And 23 % of students know the meaning of Multidisciplinary Education. So, it is clear from the above pie chart that maximum students know the meaning of Multidisciplinary Education.

3. National Education Policy help for rural development?



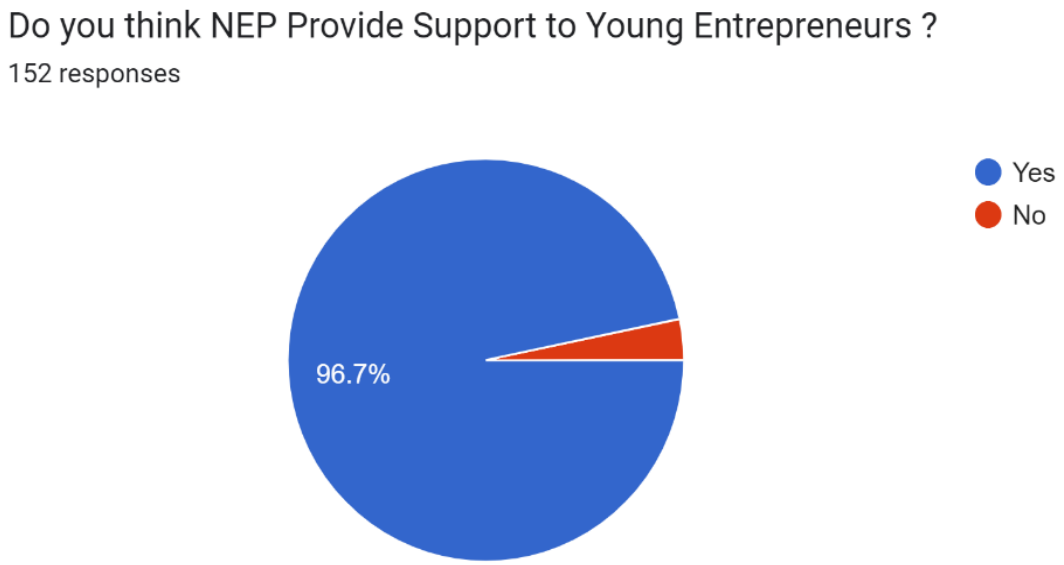
From the above pie chart, it indicates that the maximum that is 96.7 % students agree that national education policy is helpful for rural development. And only 3.3 % student opinion that NEP 2020 is not useful for rural development

4. Role of NEP 2020 to create Employment Generation?



From the above pie chart, it indicates that a maximum 94.7 % students agree that NEP helps in providing employment opportunities. Only 6 % students' opinion that NEP 2020 not create employment generation

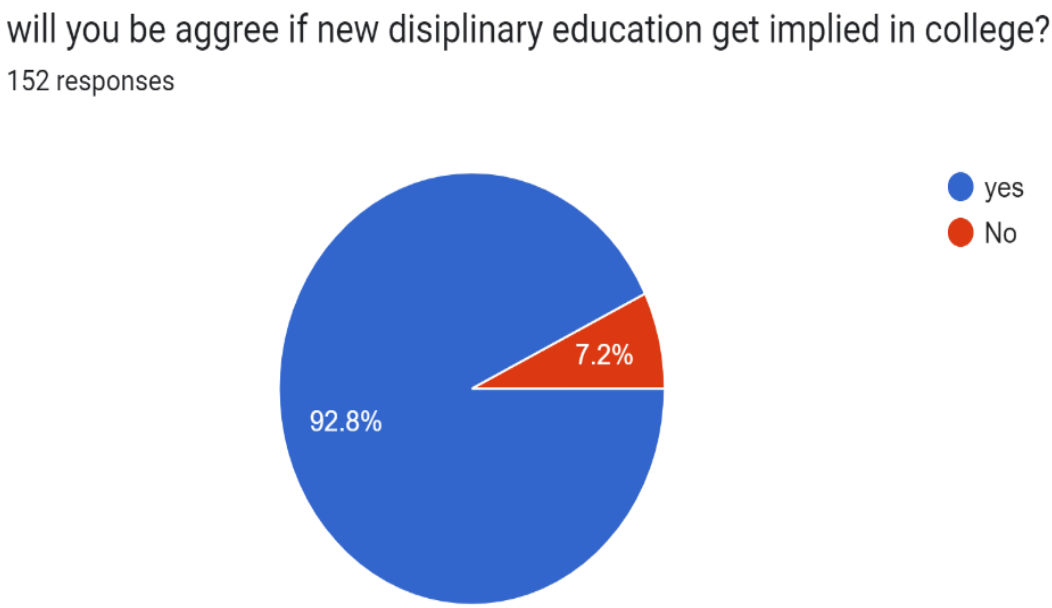
5. DO you think NEP Provides Support to young Entrepreneurs?



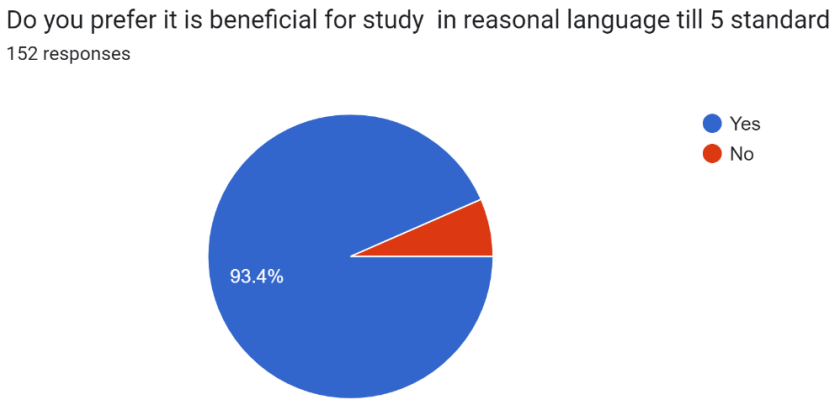
From the above diagram it indicates that 96.7 % students agree that NEP helps to provide support to young entrepreneurs. Only 4 % students' opinion that NEP does not provide support to young entrepreneurs.

6. Will you agree that NEP gets implied in college?

From the above pie chart, it indicates that 92.8 % of students agree with the new multidisciplinary policy implied in college. But only 7.2 % students' opinion that it is not applicable to college.



7. Do you prefer to Study in a Regional Language?



From the above pie chart, it indicates 93.4 % students' opinion that it is beneficial to study in a regional language. And only 7 % of students think that studying in a regional language is not possible.

FINDING OF THE STUDY

1. Survey conducted for the purpose of to understand the opinion of the arts, commerce and science students regarding National Education Policy (NEP) in this survey 68.4% female students and 31.6% male students given their response.
2. Maximum students understand the meaning of Multidisciplinary Education and Minimum students don't understand the meaning of Multidisciplinary Education.
3. Maximum students' opinion is that Multidisciplinary National Education Policy (NEP) is helpful for rural development and Minimum students' opinion is that National Education Policy is not helpful for rural development.
4. Maximum students agree that National Education Policy creates employment generation. And minimum students disagree that Multidisciplinary in National Education Policy does not create employment generation.
5. Maximum students think that National Education Policy (NEP) supports entrepreneurs and minimum students think that National Education Policy (NEP) does not support entrepreneurs.
6. Maximum students opinion that National Education Policy implied in college but minimum students opinion that National Education Policy does not imply in college.
7. Maximum students are interested to study in regional language but minimum students not interested to study in regional language.

Challenges of implementing National Education Policy (NEP):

1. Lack of infrastructure facilities
2. Corruption
3. Lack of integration in both the thinking and in the document, there are lags such as integration of technology and pedagogy.
4. Gender discrimination.
5. mismanagement of funds and lack of political war

6. unreliable data
7. lack of continuity of programs

SUGGESTIONS

Education is essential for survival in this competitive environment. It is society's foundation. The National Education policy (NEP) aims to provide improvement of all levels of education from school till to institute. This policy is beneficial for finding and improving hidden talent. A multidisciplinary approach to education under National Education Policy is really beneficial for the overall development of people. Implementing National Education Policy is really challenging. The biggest challenge of this policy is to provide correct information of this policy to the people because due to some reasons some people provide incorrect information to the people for the purpose of to fulfill commercial goals and as a result it creates rumors. People think that it is not beneficial, it is not providing any advantage. If given proper information about National Education Policy, then people will understand that it is beneficial for us and they will all work together for implementation. If all the people are involved with us then surely we will implement this National Education Policy (NEP) and make it successful. And this is one from a developing country to a developed country.

CONCLUSION

The conclusion is that, everyone has the right to an education. Education is the driving force behind the development of every society. A Multidisciplinary approach to education is a method of learning that places a strong emphasis on several points of view and academic specialities to convey a subject, idea or problem. It is the one where students learn the same subject from several perspectives drawn from various academic disciplines. It not only focuses on urban area but it also focuses on rural areas. In National Education Policy (NEP) not only provide quality education but also enrich the hidden talent of students. In NEP every thing become change and it provides positive impact of overall development of students. Now in real sense all round development of all students will take place. Whoever likes can learn that thing, all will understand we all are equal. And it leads help for humility, humanity and also for development of country. It helps to improve leadership qualities, increase confidence by providing quality education, providing knowledge to all men, women as well as transgender. It also helps for minorities students. In National Education Policy (NEP) it also provides advantages for minorities students. No separation between arts, commerce and science. It also creates the special Education Zones for special regions and groups. It offers National Testing Agency (NTA) offers common entrance exam for all students who want take admission to Higher Educational Institutions (HEI). In National Education Policy it establishes a national mission for monitoring the policy.

Survey conducted for the purpose of to understand the opinion of the arts, commerce and science students regarding National Education Policy (NEP) in this survey female students and male students given their response. Maximum students understand the meaning of Multidisciplinary Education and minimum students don't understand the meaning of Multidisciplinary Education. Maximum students' opinion is that Multidisciplinary National Education Policy (NEP) is helpful for rural development and minimum students' opinion is that National Education Policy is not helpful for rural development. maximum students agree that National Education Policy creates employment generation. And minimum students disagree that Multidisciplinary in National Education Policy does not create employment generation. Maximum students thinks that National Education Policy (NEP) support for entrepreneurs and minimum students thinks that National Education Policy (NEP) does not support for entrepreneurs But every coin has two sides. Challenges of multidisciplinary approach to education are given by a survey which was taken from the students of arts, commerce and science. From the above survey form it indicates that there are many challenges before

implementing the national education policy it includes, corruption, mismanagement of funds, lack of political will, unreliable data and lack of integration, institution limitations. Studying in mother tongue till 5th grade or standard is beneficial for those students who are living in their birth till current state but it is not beneficial for those students who migrate from another state it is difficult for them. Difference between private school and government school would be a challenge. For implementing the National Education policy (NEP) infrastructure facilities of private and government schools is also a bigger challenge. Lack of integration, migration, and institutional limitations are also challenges of National Education policy (NEP). In India there are huge villages, which makes it challenging to reach rural areas.

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THE CHALLENGES OF MULTIDISCIPLINARY EDUCATION IN COMPUTER SCIENCE

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ABSTRACT

Several of the most significant issues that China, the United States, and our entire globe must confront call for solutions that are inherently interdisciplinary in nature. Many of those call for knowledge in computer science (CS), The capacity to adapt one institution's techniques to issues in another discipline, as well as a fundamental comprehension of that discipline. Modern computer science education must prepare students to work in other disciplines or on multidisciplinary problems. What do we do to prepare them for a multidisciplinary world when we already want to help educate them a tremendous amount of computer science? This paper describes successful examples of multidisciplinary education at the interface of computer science and biological sciences, in addition to other examples involving computer science and security, computer science and stability, and computer science and social and economic sciences. So it goes through broad ideas for transdisciplinary computer education.

Keywords: Multidisciplinary, Biology, Sustainability, Security, Social Sciences, Economics, Education.

1 .One Endeavor: Computer Science in Social Service

Computer science (CS) is becoming more linked to fields outside of the discipline. Modern computer science education must equip students to collaborate with people from other fields or to work on transdisciplinary challenges. But we already have too many computer science lessons planned for them. What can we do to prepare students for a transdisciplinary world?

This is an increasingly critical topic as we explore ways to educate the next generation of computer scientists and prepare them to function in a fast changing environment. Some of the most pressing issues confronting the United States and China, and perhaps our entire planet, need multidisciplinary responses. Many of these need computer science abilities, a rudimentary grasp of another discipline, and the ability to apply skills from one discipline to issues from another. Protection of our natural environment is an example, where analysis of changing climates necessitates sophisticated computer science models, but understanding the impact of climate change on life on the planet necessitates a fundamental understanding of ecosystems and species and their dependence on temperature, moisture, and so on, as well as the impact of changing climatic conditions on mosquitoes and other disease carriers (e.g., malaria). Modern approaches to health care are crucially dependent on knowing genetics, and modern genetics has become fundamentally an information science, relying in important ways on the development of computer science tools to comprehend molecular sequences, protein function, and so on. At the same time, the involvement of computer scientists in overcoming challenging problems involving the use of electronic medical records and in the use of information technology to enable the treatment of patients from a distance, both of which require a true understanding of how modern medical science works, can greatly improve the health of our people.

In terms of security, some of the most serious threats to modern civilizations come from sophisticated biological weapons such as manufactured infections (e.g., smallpox) and naturally occurring but newly lethal illnesses such as pandemic influenza and SARS. Other difficulties necessitate the capacity to use advanced machine learning and artificial intelligence approaches to detect an imminent natural disaster or terrorist plan.

As we recognize that our reliance on traditional energy sources may pose both environmental and economic challenges, due to unintended consequences of using oil or coal, for example, and due to looming shortages, computer scientists can contribute to the development of energy-efficient architectures, energy-efficient network protocols, "smart metering" systems, and energy-aware communication and task scheduling. They can also assist us in developing models that will allow us to use computing tools in a more energy-efficient manner, as well as models that will assist us in determining how to dispatch electricity from intermittent sources such as wind. To make these contributions, computer scientists will need to understand energy economics, alternative energy sources (both traditional and nontraditional), and the interrelationship of energy, environment, and economy. Computer scientists can play an important role in ensuring the health of our increasingly interconnected global economies by developing tools to enhance and protect ubiquitous digitised economic transactions, as well as modelling the potential outcomes of new economic policies involving credit, trade, incentives, and so on. Computer scientists will need to gain a basic knowledge of today's complicated financial systems in order to do so. Approaches to critical societal problems will necessitate the development of a workforce that is well prepared to understand the interconnections between disciplines.To function in this rapidly changing world, computer science students will need to gain access to the most important foundational and emerging concepts and processes at the interface between their discipline and others, as well as develop a coherent and increasingly sophisticated understanding of how two disciplines interact, the new knowledge that is created as a result of this interaction, and the new educational and career opportunities that arise as a result of this interaction. Nevertheless, how can we do so without compromising their training in their respective disciplines? Furthermore, how can we prepare computer science students to engage with disciplines that they may not even meet while in school if we don't know which of many other disciplines an individual may come into touch with in the future? These concerns affect both American and Chinese computer experts and are frequently discussed among and between them.

2. Getting to Them When They're Young: Examples from the Biological Sciences

It is vital to begin introducing pupils to multidisciplinary experience while they are young. In succeeding years, we broadened the program's scope to include issues from computational and mathematical epidemiology, as well as ecology and population biology. The BMCI initiative prioritised teacher education. However, teacher education is insufficient. We can only reach a tiny fraction of instructors by gathering small groups of them to expose them to new ideas. On the other hand, new materials for instructors and students can reach a large number of people and are vitally necessary if we are to introduce them to themes at the interface of disciplines. As a result, we launched a new program, the DIMACS BioMath Connection (BMC), in the fall of 2006 (see http://dimacs.rutgers.edu/BMC/).This software has created 15 modules" for use in high school math/CS and biology classrooms. The modules, once again, are designed for brief durations of one week or less, and they have been tested in classrooms and assessed by expert evaluators in order to better understand their impact on both students and teachers who utilise them. The themes range from computational molecular biology to computational and mathematical epidemiology to ecology and population biology. For example, consider the BMC module Spider Silk "asks students to use their understanding of protein structure and function to raise and answer the basic question: Which alignment of two sequences is biologically most meaningful? The subject teaches the fundamental mathematical foundations that underpin computer systems that align amino acids almost instantly. After becoming acquainted with spiders, their webs, and their silks, students simulate sequence alignments using graphs (networks), dynamic programming, and recursive reasoning. For another example, consider the module "Mathematical Modeling of Disease Outbreaks." "Introduces basic mathematical

models that can provide answers to the following questions: Our evaluation attempted to put many hypotheses to the test:

Our Evaluation Attempted to put many Hypotheses to the Test

- Biology students will enjoy biology more if they are exposed to the role of mathematics and computer science methodologies in biology (including computational thinking/algorithms).
- Exposing mathematics/CS students to the use of mathematical sciences approaches in current biological issues will increase their appreciation for mathematics/CS.
- Exposing students to the intersection between biological and mathematical sciences will broaden their perspectives and expose them to new job prospects and educational opportunities.
- Students will be motivated as students if they are exposed to the link between biological and mathematical disciplines. Extensive testing revealed support for all four theses.

3. Other Disciplines' Examples

One example is the CS-biology interface. We've done similar things in other sectors, including middle schools. For example, our homeland security centre at DIMACS (CCICADA | the Command, Control, and Interoperability Center for Advanced Data Analysis) has introduced math/CS middle and high school teachers and students to algorithms for container detection at ports, sensor location for nuclear detection, and data analysis to provide early warning of a new disease outbreak.

We conducted a tutorial on these themes for high school teachers and worked with them to find methods to include these ideas into the curriculum. As part of this exercise, we also have a module authoring software. An early module for middle school pupils entailed assigning police officers to various regions where crime is prevalent.

This involved the creation of modifications to the algorithms used to solve assignment difficulties. New modules are being developed on the applications of cryptography to homeland security, the applications of broader notions about tomography to food safety and security challenges, and the placement of foot and mouth disease surveillance centres. The growing human population and rising development demands have created a number of issues for life on our planet, including whether existing patterns of human activity are sustainable. Human activity is inextricably linked to the natural environment, and there is a two-way relationship between human activity and environmental processes. The growing human population and rising development demands have created a number of issues for life on our planet, including whether existing patterns of human activity are sustainable. Human activity is inextricably linked to the natural environment, and there is a two-way relationship between human activity and environmental processes.

4. Some General Principles

While many of these examples are from precollege programmes, there are some basic principles that emerge from them that are relevant more broadly. Promote interdisciplinary education for computer scientists at all levels. Here are some important principles that have emerged from our experiences and might aid in the construction of solutions to the problems we face:

- Begin them when they are small.
- It is not necessary to complete the entire course.
- Small units are possible a big difference.
- Instructor education helps.

- Creating ties between teachers from other fields is beneficial (team teaching, cooperative preparation, etc.).
- Pupils, especially very junior students, benefit from research experiences.
- Appropriate materials must be created.
- There is no such thing as one size fits all.

So, how can we teach computer science students to comprehend other disciplines, work on challenges that are unique to those fields, and collaborate with professionals from other disciplines? There are several ways available. One strategy is to include "units" in existing courses that reflect the relationship between CS and another subject. As previously said, they do not need to be lengthy. Another way is to provide specialised courses when there is sufficient content. Case studies include computational molecular biology, computational economics, and networks. As previously said, these do not have to be lengthy. Another strategy is to include specifics. Where there is adequate content for such a course, specialised courses are offered. Examples include computational molecular biology, computational economics, and networks.

A third strategy is to do "case study" seminars or courses. These are more practical in nature and frequently involve guest lecturers from various fields or industries.Team experiences can imitate the growing emphasis on working in multidisciplinary teams, but the team experience in a course (such as a team project) does not have to be interdisciplinary to introduce students to the finest teamwork approaches. Students in other REU programmes frequently work in groups.There are several successful REU models. We have progressively had students work on many projects throughout the years. Our REU includes multidisciplinary initiatives. For example, in recent years, we have had students work on mining EEG data to detect epilepsy; protein-induced DNA looping; mathematical modelling to simulate HIV outbreaks in the third world and understand the interplay between disease spread and allocation of monetary resources to different health interventions; algorithms to identify and evacuate at-risk individuals during heat events caused by global warming; container inspection algorithms in ports; and using bio macromolecules to detect epilepsy.

In this sense, early interdisciplinary exposure might lead to a future interest in multidisciplinary work.

In each of these circumstances, exposing CS students to work in other disciplines may be more significant than the specific subject outside of CS. It does not have to be a specific subject outside of CS, but rather early exposure to a multidisciplinary experience.

It is intended that by exposing our CS students to the applications of CS to other disciplines early on, they would be able to not only advance their own field but also use it to help address critical societal challenges such as energy, environment, security, health care, and economics.

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ROLE & FUNCTIONS OF STUDENTS IN MULTIDISCIPLINARY EDUCATION

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ABSTRACT
Multidisciplinary education has been gaining popularity in recent years, as it provides students with a comprehensive and holistic approach to learning. This type of education brings together students from diverse academic backgrounds and encourages them to collaborate, communicate, and work together to solve real-world problems. The purpose of this research paper is to investigate the role of students in multidisciplinary education and the benefits they can bring to the learning experience. The research also considers how students can contribute to the interdisciplinary exchange of ideas and help create a more dynamic and collaborative learning environment. Finally, the purpose of this research paper is to shed light on the critical role that students play in multidisciplinary education and how their active participation can lead to more meaningful and impactful learning outcomes.

Keywords: Multidisciplinary education, Role of students, skills, Communication

1) INTRODUCTION
Multidisciplinary education is a teaching method that integrates different academic disciplines to provide students with a broader and more comprehensive understanding of complex problems. This type of education is particularly relevant in today's rapidly changing and interconnected world, where complex problems cannot be solved by a single academic discipline. Multidisciplinary education has been shown to promote critical thinking, problem-solving, and collaboration skills, and to enhance student motivation and engagement.

1.1 Role of Students in Multidisciplinary Education
Students play a crucial role in multidisciplinary education, as they are actively involved in the learning process. They are encouraged to take ownership of their learning and to apply their knowledge and skills in real-world contexts. In multidisciplinary education, students work together in teams to develop and implement solutions to complex problems, providing them with opportunities to practice and develop important skills such as communication, collaboration, and teamwork.

2) REVIEW OF LITERATURE:

2.1 Mr. Sivakumar Palaniyandi: Multidisciplinary Approach to enhance Quality Education for Marginalized Students (2018).
In this article, the author analyzed that Multidisciplinary Research is an investigation or inquiry into a problem to determine the hypothesis using a variety of academic approaches, fields, or methods. Though multidisciplinary approaches have some limitations, they have many benefits, such as promoting synergy among various professionals and providing various solutions to a problem faced by students on the margin.

2.2 Jan Cornelis Kamp horst: Multidisciplinary Cooperation by Students in a European University of Applied Sciences (2018).
Students are aware of the opportunities for an innovative workplace at a research center, but they are torn between working independently and collaboratively. Another barrier is time management, which is especially difficult when working on more complex and multifaceted assignments that require multidisciplinary collaboration. Students also prefer to stay in their familiar and safe environment of their private homes to the offices in the research center.

2.3 Laura-Maija Hero, Eila Lindfors **: Student's learning experience in a multidisciplinary innovation project (2019).**

The authors of this article concluded that students' understanding of the learning experience in relation to solvable conflicts and unusual situations encountered during the project was less developed than other variables. Future orientation and implementation planning skills, on the other hand, performed less well than other variables in the data.

2.4 Balram Korde: "What is Multidisciplinary approach in education?"

A multidisciplinary education aids in the development of a pragmatic outlook. Your students are given the opportunity to forge their own paths rather than follow those that have already been decided for them by the educational system. By using their minds and EdTech tools, your students are able to think outside the box.

3) Objectives of Research

- ❑ To ascertain how much students contribute to multimodal education and what effect that has on learning results.
- ❑ Identify the abilities and knowledge that students need to succeed in a multidisciplinary curriculum, as well as the role that institutions play in the development of these abilities.
- ❑ To be aware of the challenges that multidisciplinary education presents to students and the methods that institution can employ to address these challenges.
- ❑ To research how multidisciplinary education affects student's professional development and prospects for the future.

4) RESEARCH METHODOLOGY

- **Sources of Data**

The data collected for this research was based on implementation of primary & secondary methods.

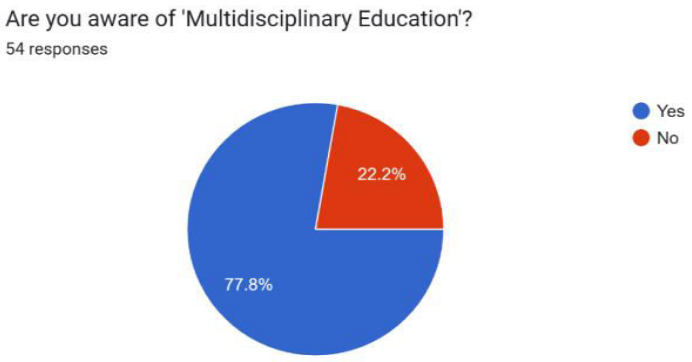
- ▫ Primary Data – The data was collected & analyzed through the questionnaire format sent to secondary education pursuing students as well as graduation students.
- ▫ Secondary Data – Secondary data was collected & reviewed through journals & websites.

- **LIMITATION OF STUDY**

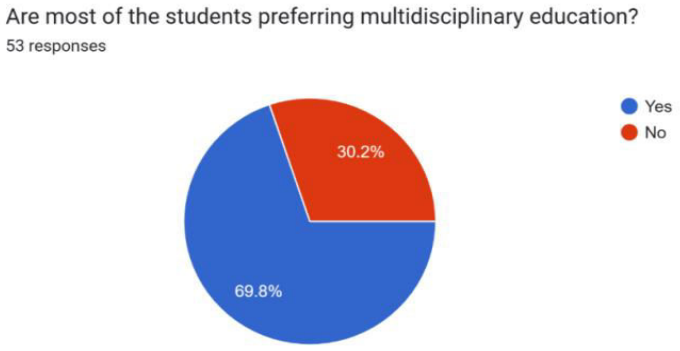
The study of the data is limited with secondary & higher secondary students only. A total of 54 responses were collected for the study.

5) Data Analysis

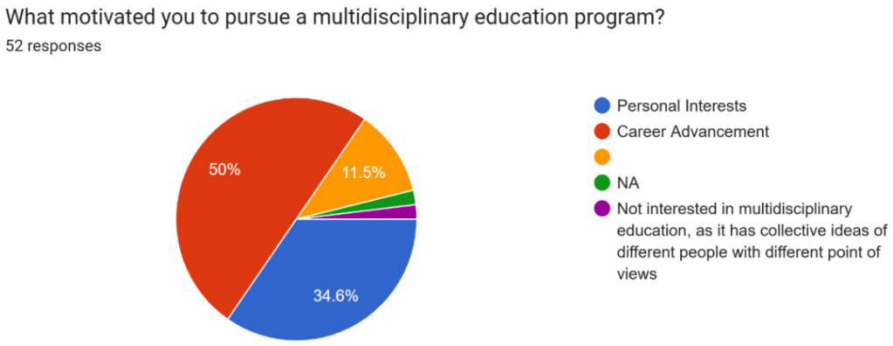
The collected data from the 54 students was studied & thoroughly analyzed. The analysis of the collected responses are as follows:



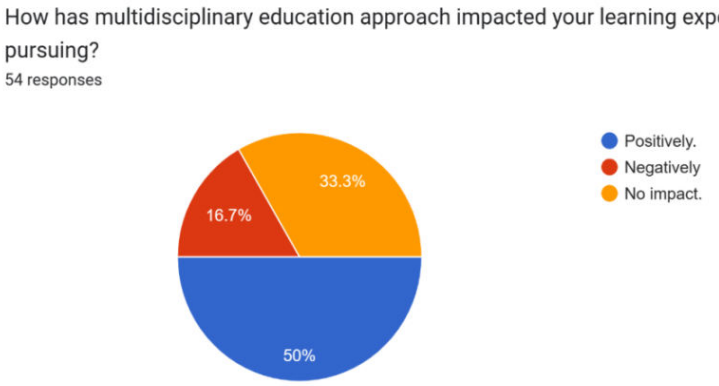
This pie-chart shows that 77.8% of the students know about the concept of multidisciplinary education, while 22.2% are unaware about it. Which makes a fact that majority of the students are aware of the new education policy regarding the multidisciplinary education.



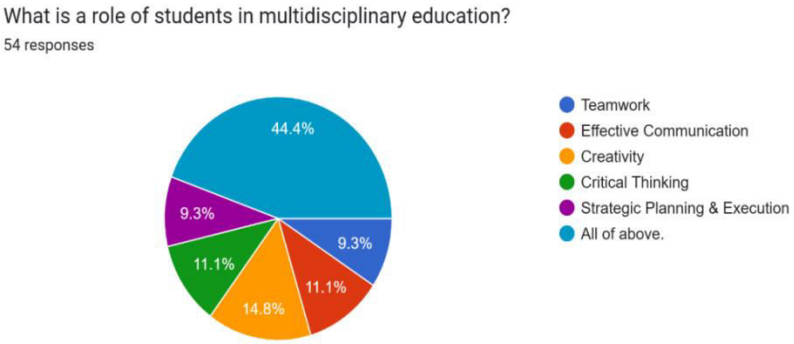
These results shows that 69.8% students are preferring to have a multimodal education in their career as it enhances their skills & knowledge in different educational qualification at same time. Whereas 30.2% students prefer the traditional way of education, because of its simple nature.



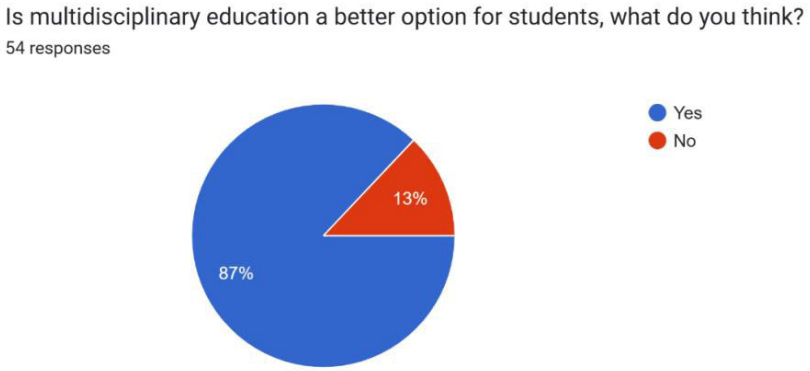
This chart shows that 50% students are literate of advantages of multidisciplinary education & 34.6% have their own interests about their academic career. While 11.5% people have a perspective of not acquiring a multidisciplinary education as it has a diversity in ideology of people, which one can find confusing.



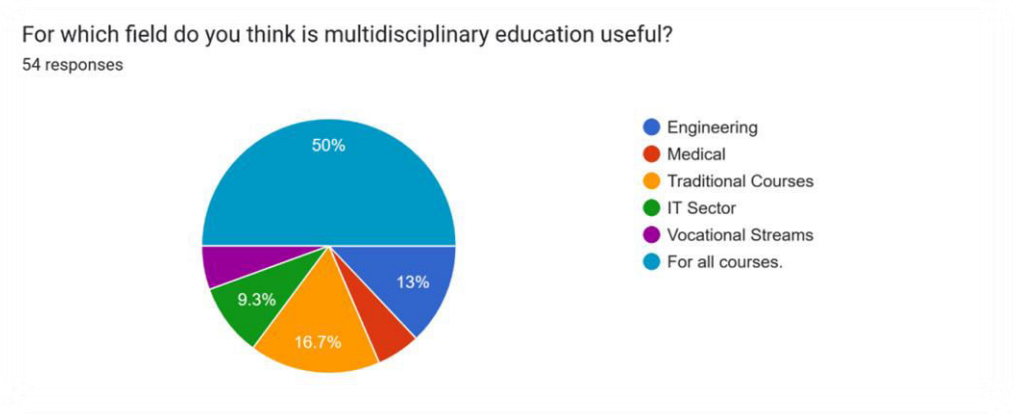
The results of this pie-chart display that 50% of the students are having positive impact of multidisciplinary education in their learning. On the other hand, 16.7% students are experiencing difficulties; while 33.3% have no impact so far of the multimodal education.



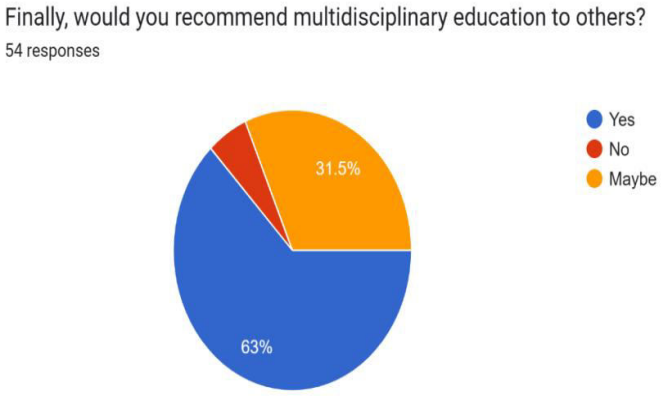
According to these responses, 44.4% of students believe that all factors such as teamwork, effective communication, creativity, critical thinking, and strategic planning and execution must be performed by students acquiring multidisciplinary education. While combined, 55.6% of students have thought about roles separately.



According to these results, 87% of the students find the multidisciplinary approach useful & convenient option for overall knowledge development. Whereas, 13% seem to be disagreed by the approach, as it's needed with more patience, concentration & level of understanding the concept.



In this pie-chart, we can see that 50% of students have a thought that multidisciplinary education is useful for all the courses as it no limitation yet, while the others have differentially of thoughts in implementation & usefulness in courses like – 16.7% in traditional courses, 13% in engineering, 9.3% in Information Technology & medical as well as vocational streams have similar voting of 5.6%.



According to these results, 63% of students are satisfied & convinced with the multidisciplinary approach of education & would recommend others to implement this. While, 31.5% are still confused about their experience about it & struggling with their opinion & 5.6% are unsatisfied with it, which is followed by negative response.

6) FINDINGS OF THE STUDY

- Students that actively participate in multidisciplinary education frequently have higher levels of interest and motivation in their academic pursuits.
- Students who receive a multidisciplinary education will learn to approach problems from a variety of perspectives and integrate knowledge from many disciplines, which will improve their problem-solving abilities.
- Students who have a multidisciplinary education are better able to think critically about complicated topics and integrate disparate academic fields.
- Students who take part in multidisciplinary education can develop a wider worldview and a greater comprehension of how different disciplines are related.

7) CONCLUSION

- In conclusion, we can say that students play an essential role in application of multidisciplinary education approach, because they contribute a variety of viewpoints and experiences to the classroom.
- Students' creativity, critical thinking, and problem-solving abilities are fostered in an environment that is created by the collaborative and inclusive approach used in multidisciplinary education.
- The involvement of students in cross-disciplinary projects and activities also aids in their comprehension of complicated real-world issues and the development of workable solutions.
- Students can also broaden their knowledge and abilities, preparing them for the workforce, by being exposed to a variety of disciplines as well as diverse ways of thinking and solving problems.

- Provided the foregoing, it is obvious that students are crucial to the success of interdisciplinary education, and educators should make sure they are given plenty of opportunity to interact and engage in this type of learning environment.

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LEARNING OUTCOMES IN MULTIDISCIPLINARY EDUCATION

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ABSTRACT
Supporting high-quality higher education is a top priority of India's future educational development plan. To enable young people to participate effectively in knowledge production, higher education quailty improvement is thought to be essential. Taking part in the information economy, boosting national competitiveness in a globalised environment, giving young people skills that are applicable for both national and global norms. Through curriculum reform based on a learning outcomes-based curriculum framework, improving/upgrading academic resources and learning environments, raising the quality of teaching and research across all higher education institutions, and using and integrating technology to improve teaching-learning processes and reach a more employable graduate body, sustained initiatives are needed to institutionalize an outcome-oriented higher education system. The purpose of this research work is to find out the learning outcomes in multidisciplinary education .The paper concluded order to build in students the ability to analyse information and apply it to real-world situations, multidisciplinary education's major objective is to develop knowledge about a certain topic. Students need to see how various subjects in the relevant curriculum are related in order to increase their understanding and make the learning process more fruitful and fun.

Keywords: Lifelong learning, personality development, verbal information, Intellectual skills.

INTRODUCTION
The term "multidisciplinary education" refers to a special method that aids students in discovering and learning certain courses or curriculam from various fields. The same topic may be covered across several disciplines in such a curriculum. Because of the extremely competitive world we currently live in, the value of multidisciplinary education has been continuously rising in the twenty-first century.

The overall goals of the learning outcomes-based curriculum framework are to: = assist in developing graduate qualities, qualification descriptors, programme learning outcomes, and types and degrees of learning outcomes (knowledge, skills, attitudes, and values) or characteristics a programme graduate should be able to exhibit upon successfully completing the programme of study .

A stimulating setting where kids can learn at their own pace is lacking in today's world. Online learning is bridging this gap, but it may be strengthened with the aid of student autonomy. To encourage creativity among students and assist them in developing original ideas that can affect the future, it is crucial to provide them the flexibility to study what interests them. With a multidisciplinary education, students can pick their preferred disciplines, becoming incredibly knowledgeable on those subjects, which will help them learn more effectively.

2. REVIEW OF LITERATURE

1 .**Asher, Z. D., & Ramo, N. L., & Bradley, T. H. The Use of Systems Engineering Principles to Improve Learning Outcomes in a Multidisciplinary Course**

The researcher explained that in a multidisciplinary graduate level course, the claim that exposure to and retention of systems engineering principles enhances learning outcomes is evaluated.

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3. OBJECTIVES OF RESEARCH

1. To study the comparison of positive outcomes of holistic education and multi disciplinary education.
2. To study the usefulness of multidisciplinary education for students.
3. To study the advantages and disadvantages of multidisciplinary education 4.To study the outcomes in multisciplinary education in career planning.

4. RESEARCH METHODOLOGY

This is a fact finding research approach. Research was based on survey method .

The survey of students conducted for knowing the responses to learning outcomes in upcomingeducation policies. Students opinion and their interest in multidisciplinary education in colleges.

4.1 Sources Of Data

Data were collected by using primary and secondary sources.

A. Primary Data

Data were collected through the questionnaire and discussion with the Graduation students and few from parents. Questionnaires were sent to graduation students.

B. Secondary Data

Secondary data were collected from journals and websites.

4.2 Sampling Size

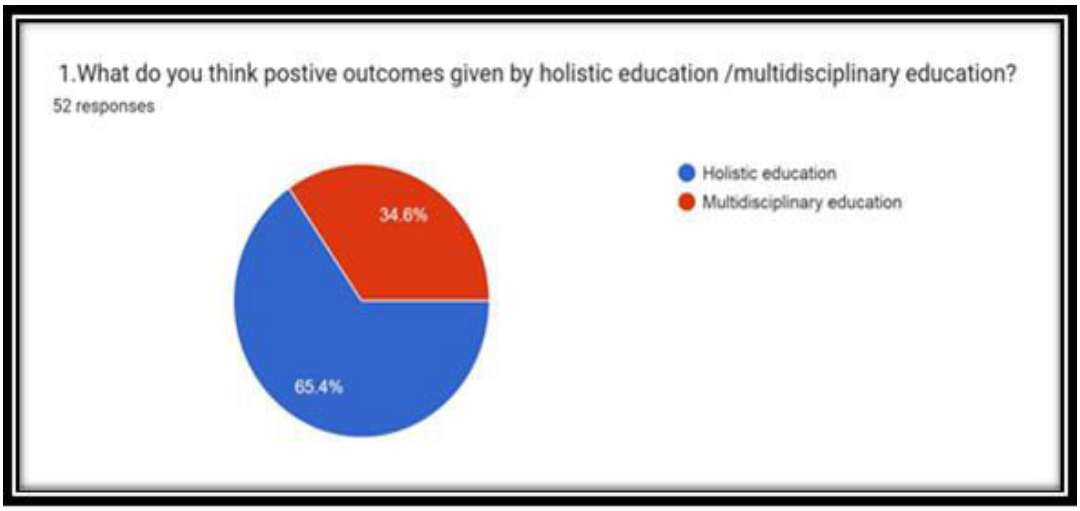
Collecting a data in a simple random sampling technique was used. Data were collected through the survey. Randomly 52 students were selected as a sample from college.

4.3 Limitation of Study

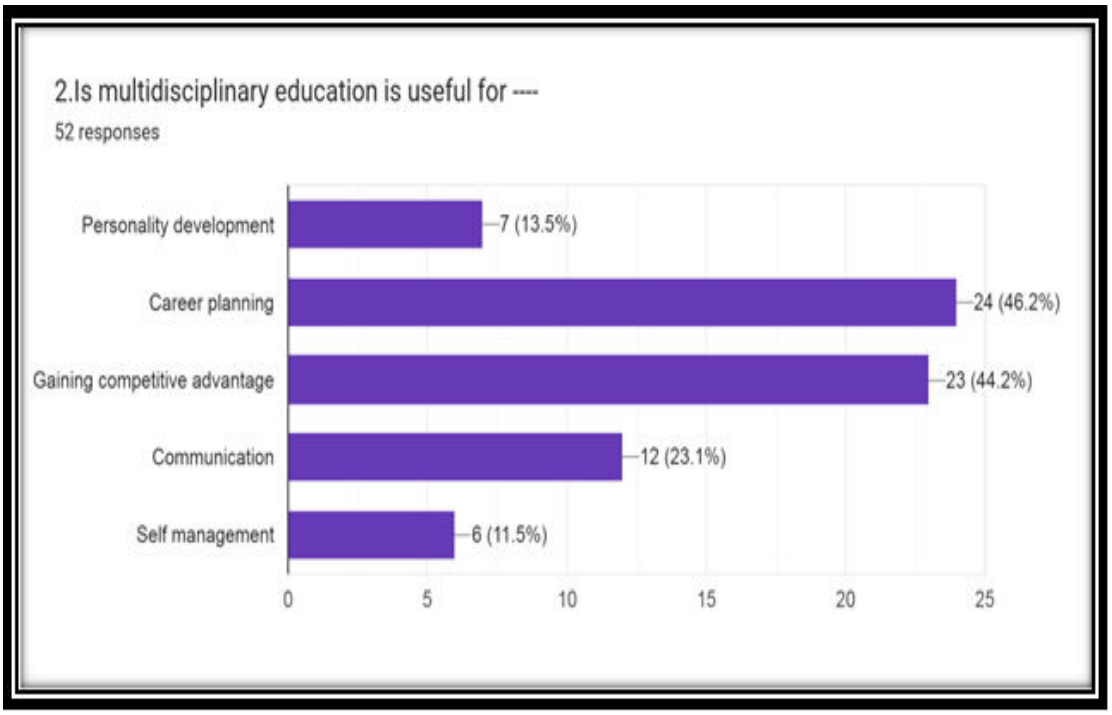
With the graduation courses, there is less study available.

Only the chosen samples are used, which limits the study's scope.

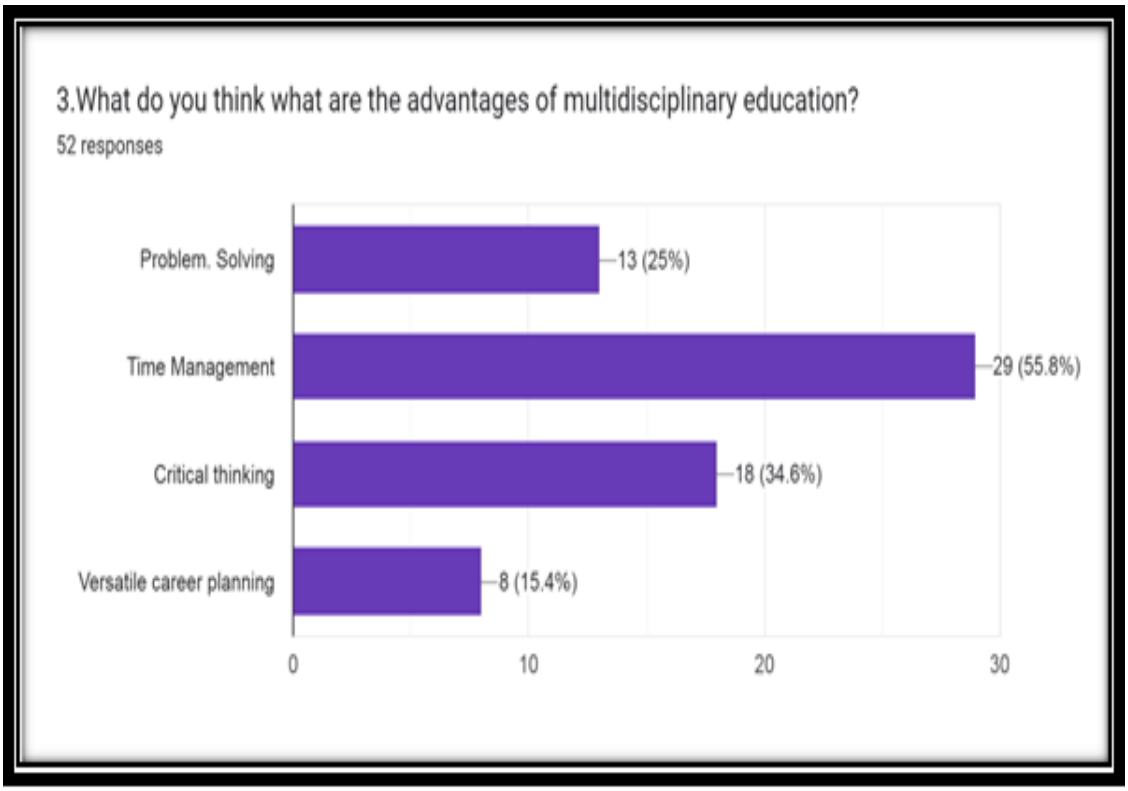
5. Data Analysis and Interpretation



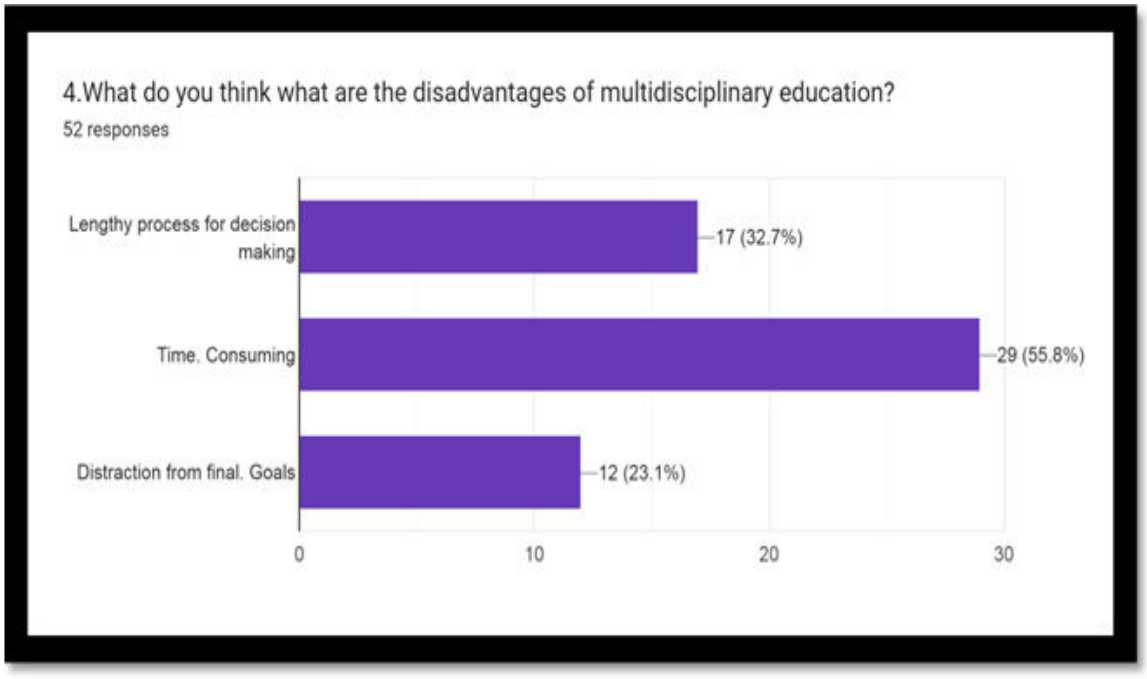
This pie chart shows how much does students prefer as per their choices to get dual degree in holistic education /multidisciplinary education.
In their education so 65.4% of students for holistic education in their education and 34.6% of students for multidisciplinary education. so the weightage for holistic education is more in compare to multidisciplinary education in their Education

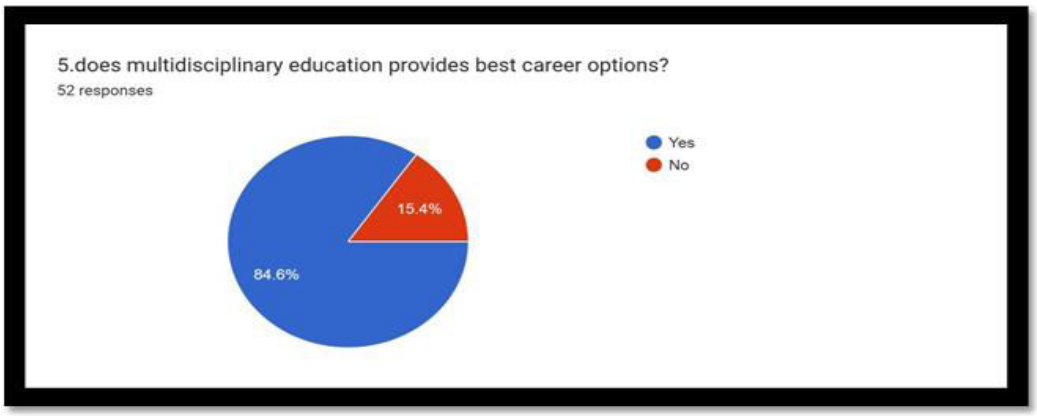


In this pie chart 11.5% students thought choosing multidisciplinary education will be useful for self-management and 23.1 % of students thought choosing multidisciplinary education will be useful for communication ,and 44.2% of students thought choosing multidisciplinary education will be useful for gaining competitive advantage, 46.2% of students thought choosing multidisciplinary education will be useful for career planning,13.5% of students thought choosing multidisciplinary education will be useful for personality development.



In this pie chart 15.4% students thought versatile career planning would be less advantageous for multidisciplinary education. and 25 % of students thought problem solving would be more advantageous compare to versatile career planning for multidisciplinary education ,and 55.8% of students thought time management planning would be more advantageous for multidisciplinary education, 34.6% of students thought critical thinking planning would be advantageous for multidisciplinary education.





In this pie chart 55.8% students thought time consuming would be disadvantageous for multidisciplinary education. and 23.1 % of students thought distraction from final goals would beless disadvantageous for multidisciplinary education ,and 32.7% of students thought that there would be lengthy process for decision making would be a disadvantage for multidisciplinary education.

In this pie chart 84.6% of students are agreed that multidisciplinary education provides best career options and only 15.4% students are disagreed that multidisciplinary education provides best career options

6. FINDINGS OF THE STUDY

1. The majority of students who participated in the online survey provided positive feedback.
2. More than 50% of the students have the awareness of the Multidisciplinary Education
3. The majority of students understood and were aware of the benefits of a multi disciplinary education.
4. A lot of students like to choose their classes based on theirinterests.
5. Many students want to select their subjects by their interest.

7. CONCLUSION

With the multidisciplinary approach, we are not intentionally attempting to create confusion in students, but rather allowing them to naturally experience it as they try to learn, test, and apply multiple concepts in real-world situations. For them to become effective learners, they must learn to face and embrace confusion. Students in this study are quite willing to accept everything that is outlined in the multidisciplinary education policies, and they play a highly cooperative and acceptable role in this study.

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THE CONTRIBUTION OF EFFECTIVE COMMUNICATION IN MULTIDISCIPLINARY EDUCATION

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ABSTRACT

Multidisciplinary education refers to a unique education where students learn more than one course/subject which is completely different from one another. For example, Business Management falls in the category of Commerce field, but Multidisciplinary Education explains why Business Management is necessary for Science as well as Arts students. A person may think that he/she must have some specialization course other than regular education. Thus, Multidisciplinary Education helps that person to study various subjects in different fields. This helps a person to seek any job easily. Students who graduate from college may have a good CGPA and SGPA, but they may not have the proper skills which are required for a job. In such situations, Multidisciplinary Education helps the students to learn multiple skills resulting in more Employability.

The National Education Policy 2020 came into existence on 29/07/2020. This policy is a replacement for the National Education Policy 1986. This policy was formed for providing high-quality education to all. The Union Cabinet of India started this policy. It is also known as New Education Policy (NEP). This policy has emphasized on the use of the 'Mother Tongue' or local language till the 8th class. In the 8th class, students are given various language options like Hindi, Sanskrit, German, etc depending on the availability of faculties.

The word 'COMMUNICATION' is used widely. It refers to an exchange of facts, ideas opinions by 2 or more persons. It is the tool with which one exercises influence on others brings about change in the attitudes and views of one's associates, motivates them, and establishes and maintains relations with them. Without communication, there would be no interaction between people or a group of people. In today's modern world, communication skills play a vital role in achieving success.

Keywords: National Education Policy 2020, Multidisciplinary Education, Effective Communication

INTRODUCTION

The word 'COMMUNICATION' is derived from the Latin word 'COMMUNIS', which means 'COMMON'. Whatever is common is shared by all. Most people define Communication as "Communication is an exchange of messages between and among human beings."

According to some experts, "Communication is the transmission and reception of ideas, feelings, and attitudes, both verbally and non-verbally, eliciting a response. It is a dynamic concept underlying all kinds of living systems".

Communication is defined in many different ways by various experts. The importance of Communication is as follows: -

- It helps in the process of management. With the help of communication, a manager can give practical shape to many plans and projects.
- Planning becomes easier when effective communication takes place. Communication is the only medium for successful planning of anything.
- Communication helps people to take decisions. The decisions taken by top-level authorities are helpful only when there is proper communication between other people.

- With the help of proper communication, every person knows what exactly he has to do.
- With the help of effective communication, a leader and his followers can create mutual understanding, trust, and harmony.

REVIEW OF LITERATURE

- Adarsh Kumar: 'New Education Policy 2020 Of India: A Theoretical Analysis.'

According to this research paper, the author mainly focused on the National Educational Policy 2020 introduced in India. The author gave various suggestions such as reducing the education burden on students, offering free education for poor people, etc.

- Rammohan Khanapurkar: 'Online Education in India':

According to this research paper, the author analyzed how online education helped students during COVID-19 Pandemic. The author also observed that there was a conceptual gap in Maharashtra's education.

OBJECTIVES OF RESEARCH

- To make people understand the importance of Communication.
- Try to overcome barriers to effective communication.

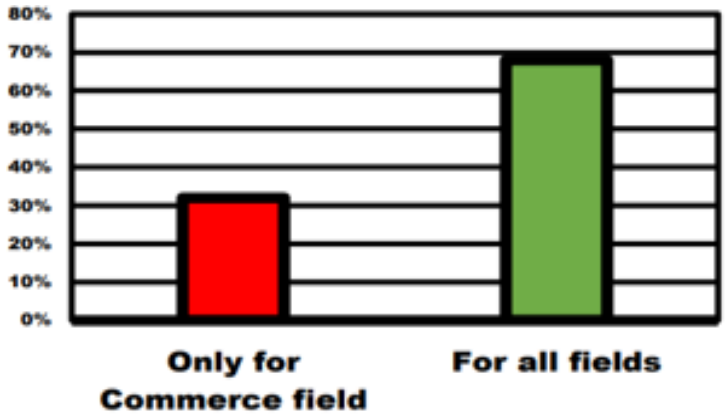
HYPOTHESIS

- The study adds to the body of knowledge on communication's role in educational organisation effectiveness.
- Better organizational relationships result from more effective communication, and higher educational outcomes are associated with better partnerships.

RESEARCH METHODOLOGY

The research was based on the 'SURVEY METHOD'. The survey of students of different education sectors such as Science,, BBA, MBA, Arts, etc was taken for understanding whether Communication is important or not.. This data is mainly collected by the means of surveys, newspapers, magazines, articles, etc. Secondary Data id used for this research paper. Secondary Data means data that is collected by the researcher by the means of the internet or other social media networks. In short, Secondary Data is that data which is already been gathered and the researcher uses it for his research.

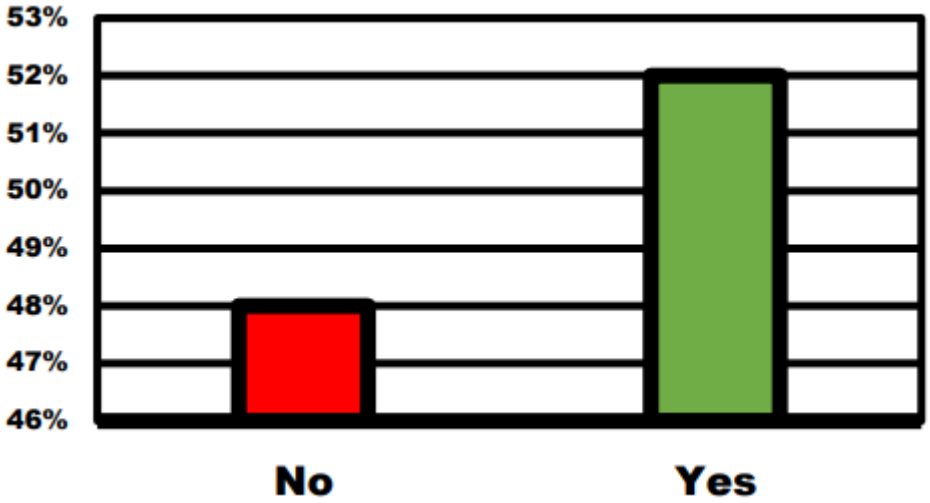
Is Communication Necessary for Commerce Field or for all the Fields of Education?



In the above chart, it was asked by the researcher whether the communication is important only for the Commerce field or it is important for all fields. According to the bar chart represented

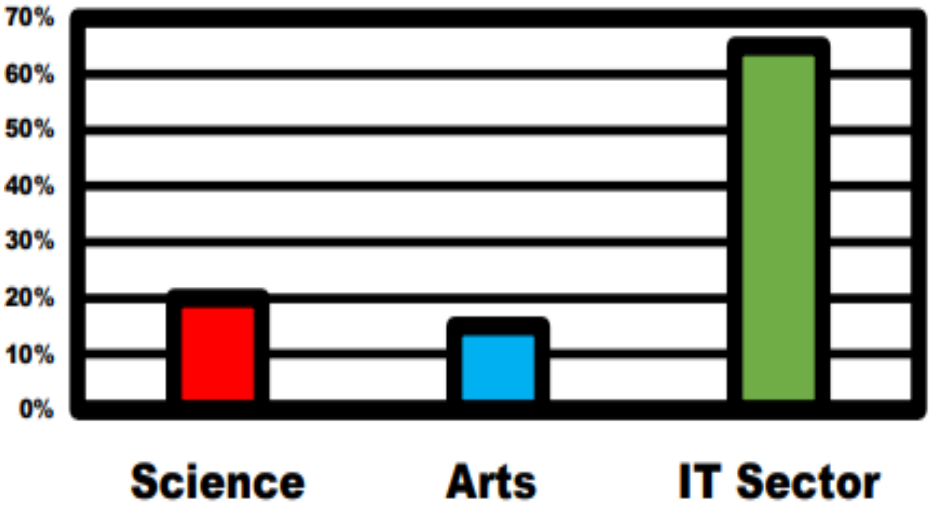
above, 68% of students think that Communication is important for all fields including Commerce. The remaining 32% of students opined that Communication is important only in the Commerce field and not in any other fields.

Do you think Communication must betaught to all fields other than Commerce?



In the above chart, the researcher asked the students of different fields whether Communication be considered a subject for all fields of education or not. According to the above bar chart, 48% of students disagree with this suggestion and the remaining 52% of students agree with this suggestion.

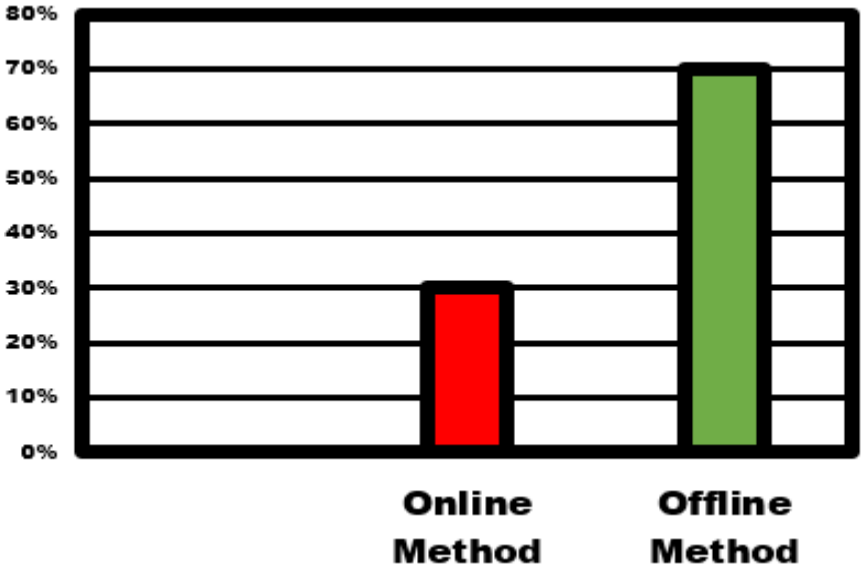
According to you, in which field of education, Communication is mostlyneeded?



In the above bar chart, the researcher wanted to know where Communication is needed most. The responses of students were as follows:-

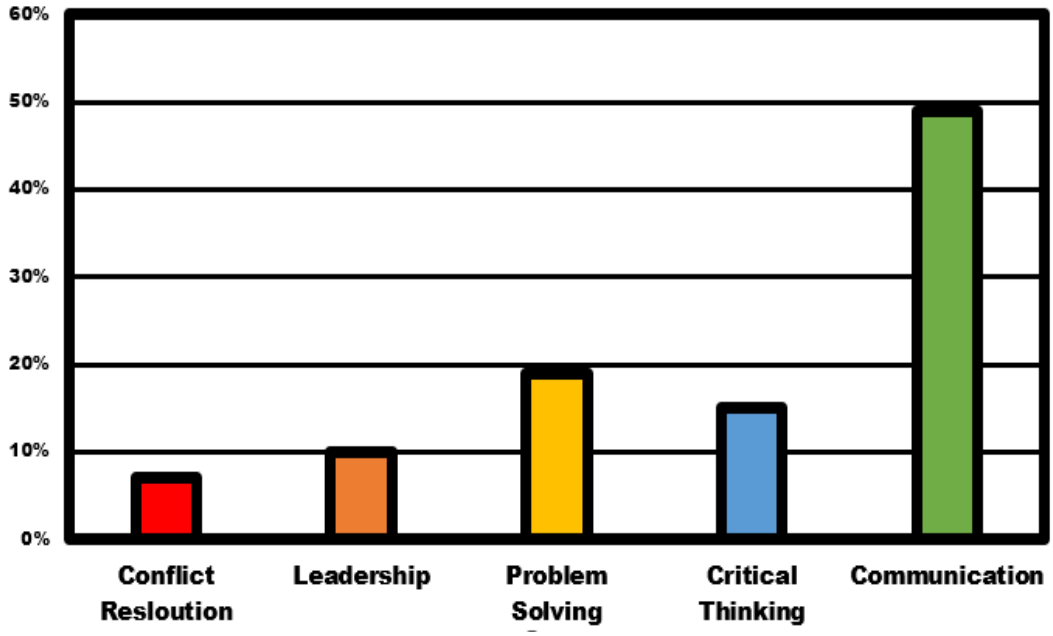
- Science=20%
- Arts=15%
- IT Sector=65%
- According to the research, students think that Communication is mostly needed in IT Sector, rather than in Science and Arts.

Which method of communication do you think is best for educational purposes?



According to the above bar chart, a survey was conducted to know which method is suitable for educational purposes. As per the student's responses, 30% of students opined that the educational system must follow the online education method. The remaining 70% of students opined that the offline method must be followed in the educational system.

Which types of Soft Skills are Needed the Most for any Individual?



In the above chart, it was asked by the researcher that which Soft Skill is mostly needed for an individual. The following were the responses of the students of different fields;:-

Conflict Resolution=7%

Leadership=10%

Problem Solving=19%

Critical Thinking= 15%

Communication=49%

Thus, it is clear from the above chart that Communication is the most needed Soft Skill for any individual to achieve his/her goals.

The Need for Communication is as follows

- Size of the organization.
- Human relations.
- Social relations.
- The growing role of trade unions.
- Technological development.
- Development of behavioral sciences.
- Increasing competition.
- Information technology.
- Growing specialization.

The Principles of EFFECTIVE COMMUNICATION are as follows

- Basic Principles
- Principle of Clarity
- Principle of Information
- Principle of Consistency.
- Principle of Adequacy or Completeness.
- Principle of Timeliness.
- Principle of Appropriate Channel.
- Principle of Integration.
- Principle of Integration.
- Principle of Flexibility.
- Principle of Feedback.

A. Other Principles

1) Communication with an aim or objective.
2) Plan the message.
3) The message should suit the needs of the receiver.
4) A message should attract attention.
5) Barriers To Effective Communication Must Be Minimized.

Barriers to Effective Communication

Communication is the process of transmitting the information. If information, as is present in the mind of the transmitter, is transferred unchanged into the mind of the receiver, then we can say that a perfect act of communication has taken place. In our day-to-day life, most of us have

had misunderstandings borne of communication, some of which, some resulting in embarrassment. The above-mentioned scenario will be evident if only we would care enough to recall events of our immediate past. Miscommunication can originate at 3 levels, the level of the transmitter, the level of the medium, and the level of the receiver. In technical parlance, anything that obstructs the free flow of communication is called a **'**Barrier Of Communication'.

Some Barriers to Effective Communication are as Follows

1) Physical Barriers
2) Psychological Barriers.
3) Linguistic Barriers.
4) Cultural Barriers.
5) Mechanical Barriers.
6) Other Barriers.

Remedies to Overcome Barriers to Effective Communication

Barriers to effective communication cannot be eradicated, but they can be reduced to some extent.

Barriers to Effective Communication can be reduced/minimized in the following ways

1) Improving vocabulary.
2) Understand the culture properly.
3) Proper listening.
4) Developing proper interpersonal relationships.
5) Use of proper language.
6) Us of Grapevine.
7) Use of audio-visuals.
8) Overcome noise
9) Overcome emotions.
10) Overcome prejudice.

SUGGESTIONS

- The importance of communication must be spread worldwide. It should not be limited only to the Commerce field.
- Offline communication must be followed in the overall education system.
- The National Education Policy should implement Communication in all fields of education.
- Barriers to effective education must be reduced to some extent.

CONCLUSION

The importance of communication must be understood by each student in all fields. Communication must be taught in all fields, be it Arts, Science, or any other field of education. Some barriers to communication like physical barriers, psychological barriers, cultural barriers, mechanical barriers, and other barriers must be minimized to some extent. Thus, communication will lead to more job opportunities for students, thereby increasing their knowledge and motivating them to do more and more work.

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A SURVEY ON ROLL OF MANAGEMENT EDUCATION IN IMPROVING ENTREPRENEURIAL SKILL

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ABSTRACT
This article's goal is to show how management education contributes to the growth of entrepreneurship and to revaluate the value of education for those who want to launch a firm. Education establishes knowledge, culture, and attitudes about specific topics. The mix of experimental learning, skill development, and, most importantly, a shift in students' perspectives is made possible, in particular, by entrepreneurial education. According to studies, learning entrepreneurship is possible because education can promote entrepreneurship as a worthwhile career option and help people become more aware of it. Strategically geared at starting an entrepreneurial business, entrepreneurial education There is a favourable correlation between entrepreneurial education and entrepreneurial intentions, according to a met analysis that was done. Innovative, creative, dynamic, adaptable, risk-taking, and bold people make up entrepreneurs. They are persons with leadership skills who are opportunity recognizers, network builders, autonomous, and self-sufficient. Entrepreneurship is viewed as a crucial element of economic development and prosperity. A nation's economy by lowering unemployment, boosting output and productivity, encouraging innovation and creativity, and generating wealth. During the entrepreneurial process, all unique and innovative ideas are transformed into products and services to increase an organization's profitability

Keywords: Entrepreneurship, Management Education, Workshops, Business Games

INTRODUCTION
The report claims that entrepreneurship can be encouraged and promoted through business education. Entrepreneurship is a dynamic process of creation, transformation, and vision. In today's interconnected corporate world, this essay highlights the need of business education. Additionally, it emphasises how important business owners are to economic development. Nowadays, the word "Entrepreneurship" is widely used. It is being discussed by academics, politicians, economics, and even college students.

2. REVIEW OF LITERATURE

2.1**. Paul Jones, Vanessa Ratten: Entrepreneurship and management education: Exploring trends and gaps:** Education is a subject because it can connect theory and practise. The purpose of this editorial is to highlight how the field of entrepreneurship must adapt to the digital transformation brought on by the recent COVID 19 crisis. An entrepreneurial perspective that emphasises the diversity of the industry is presented. The points highlighted indicate the necessity to consider novel teaching approaches going forward. It's critical to emphasise the research areas that, in light of crisis management strategies, require additional focus in order to address the current COVID-19.

2.2 Dean A. Shepherd and Evan J .Douglas: Entrepreneurship as a utility maximizing response:
Researcher believe that business education should teach not only the many business disciplines but also the core of entrepreneurship to ensure long-term firm productivity growth.

2.3.Carol Lucy, Antonina Bauman : Enhancing entrepreneurial education: Developing competencies for success: This review paper identifies some of the entrepreneurial competencies needed to successfully launch a business endeavour and the current level of skill

of recent graduates for business and entrepreneurial programmes. Due to the constantly changing entrepreneurship environment, educators must constantly adjust the educational process, procedure, and curriculum to ensure the best outcomes for future entrepreneurs. Additionally, this essay offers ideas for novel teaching strategies that might be used to the evolving business climate in the Midwest of the United States.

2.4.Adel Sarea : The Impact of Entrepreneurship Education on Entrepreneurs' Skill.
This study set out to assess the effects of entrepreneurship education on the technical, managerial, and entrepreneurial abilities of entrepreneurs. To assess how entrepreneurship education has affected entrepreneurs' skills, a survey approach was used. On a five-point Likert scale, respondents had to rank how they believed entrepreneurship education has affected their judgements of how well they knew how to run a business.

2.5Fatima Fauad Almahry: A review paper onentrepreneurship education and entrepreneurs' skills
Explain the theoretical connection between entrepreneurial education (ee) and the skills of entrepreneurs, which include: 1. To examine entrepreneurship education and entrepreneurship skills, use 2. Business management skill and 3. Personal entrepreneurial skills.

2.6 Ramona, Diana Leon: Developing Entrepreneurial Skills. An Educational and Intercultural Perspective
The purpose of the study is to ascertain how business and economics departments in European Union member states help students develop their entrepreneurial talents. Therefore, a case study approach is used to focus on the most significant business schools from the member states of the European Union; as a result, 267 curricula from 21 higher education institutions are found and studied. The findings demonstrate that students at European business schools successfully acquire the majority of the necessary entrepreneurial abilities.

3 RESEARCH OBJECTIVES

1. To study the trend management education improve entrepreneurial skill.

2. To studied the activities conducted by the management colleges for improving the entrepreneurial skill.

3. To study the preferences of the students towards jobs and businesses.

4. To study the importance of theoretical paper of entrepreneurship.

5. To study the key objectives of the management education.

4 RESEARCH METHODOLOGY

Researcher used descriptive method for research. Data analysis was based on the survey method.

4.1 Data Collection

Researcher used both primary the information was gathered using both primary and secondary sources and secondary sources to compile the information.

A. Primary Data

The data was gathered using a questionnaire and discussions with management students.

BBA students received questionnaires

B. Secondary Data

Secondary data sources included articles and websites.

4.2 Sampling Size

To collect data, a simple random sampling technique was used. As a sample, 70 BBA and MBA students were chosen at random.

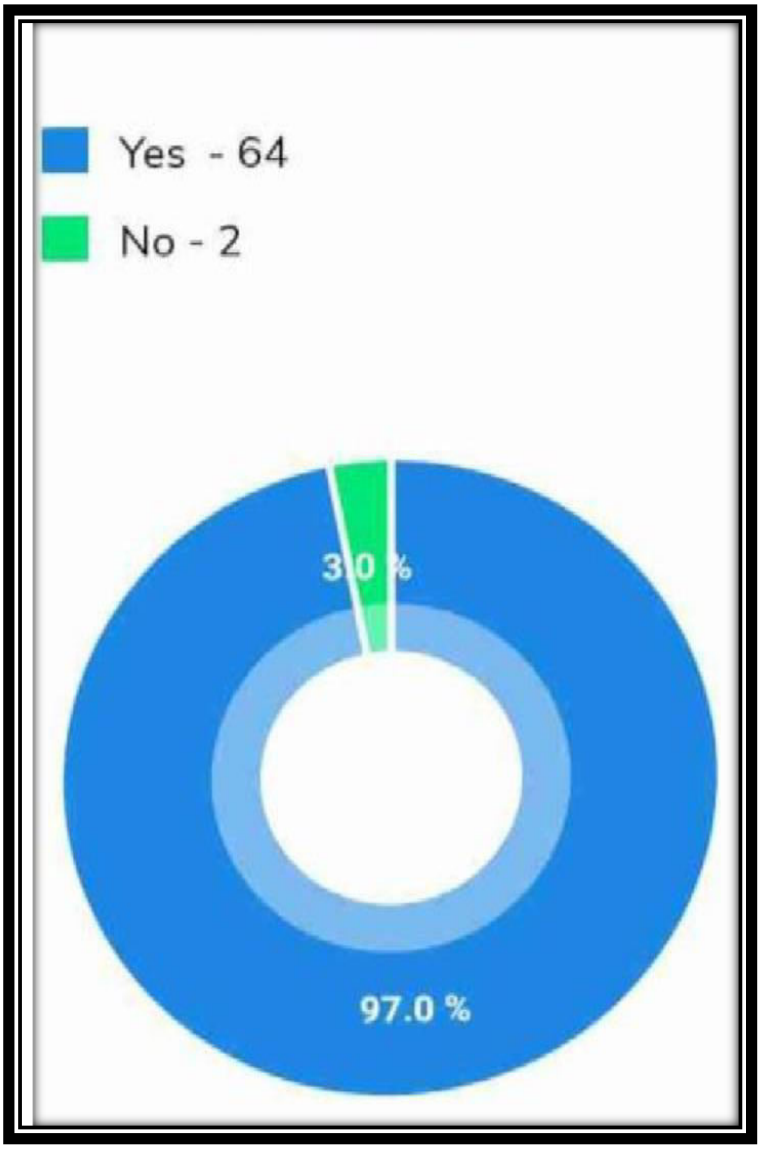
4.3 Limitation of Study

Findings and conclusion was completely based on the survey of 70 students only.

5. DATA COLLECTION AND INTERPRETATION

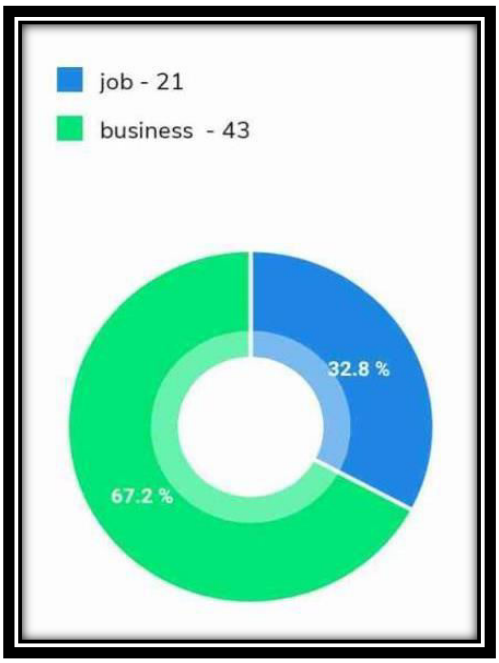
The questionnaire collected data from 70 students. The following are the results of the analysis of student responses.

The shown pie chart gives the information that all the 97.0% staff members said that management education improving entrepreneurial skills and 3% said the opposite to this.

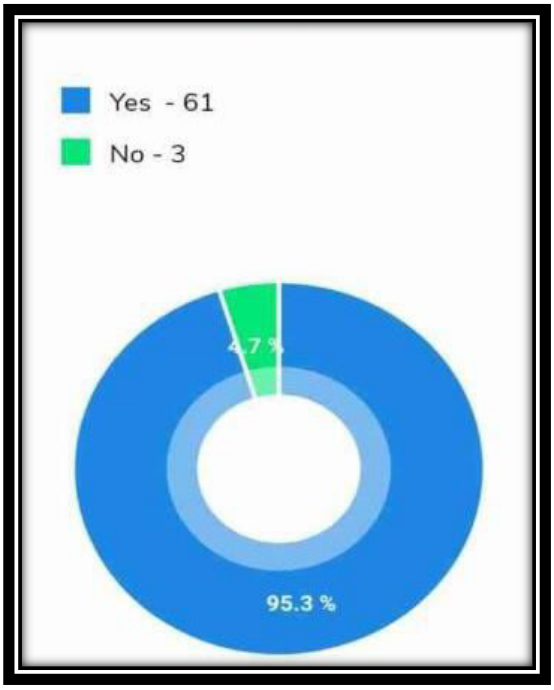


Above pie chart shows that 24.7% said that management educational should arrange work shops to improve entrepreneurial skills,22.5% said that they should arrange industrial guest lectures, again the 24.7% says they should arrange business games,15.7% said extracurricular activities, and 12.4% said practical specialisation.

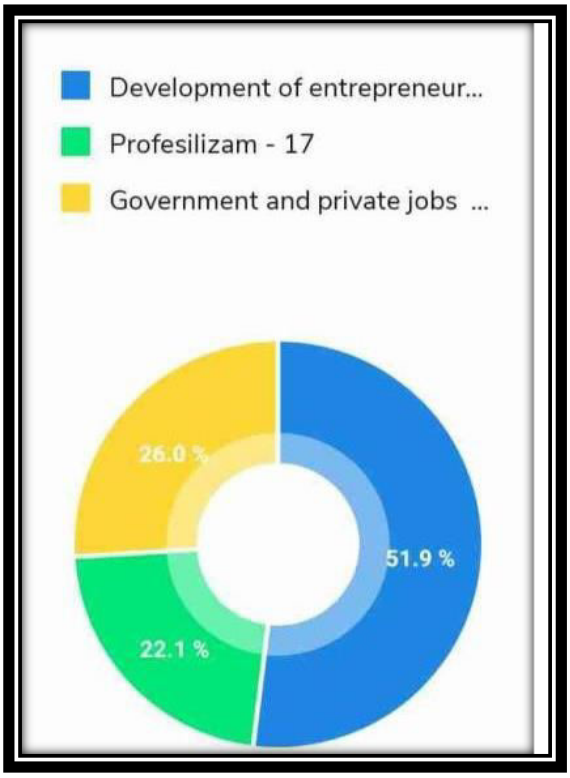
Above chart shows that 32.8% students are interested in doing job and mostly 67.2% students are interested in doing a business.



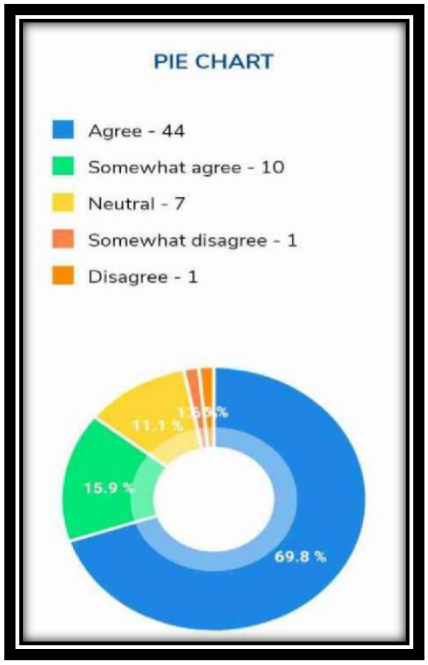
This pie chart gives the information about 95.3% students are agreed to the statement that theory of entrepreneurship is useful for improving entrepreneurial skills and 4.7% are disagree to the statement.



Above chart shows that 51.9% students said that management education should focus on development of entrepreneurs, 22.1% says that they should focus on professionalism, and 26% says that they focus on government and private jobs.



This chart shows who are interested in entrepreneurship should choose management education, 69.84% students are agreed to the statement, 15.87% are somewhat agreed, 11.11% are neutral, 1.59% are somewhat disagree and again 1.59% are disagree.



6. FINDINGS

1. Most of the students said that management education improving entrepreneurial skills
2. Most of the students said that management colleges should organise workshops to improve entrepreneurial skills and less students said that they should organise industrial guest lecture, business games, extracurricular competition, practical socialization
3. Most of the students are interested in business either than a job.
4. Most of the students said yes to the theory of entrepreneurship is useful for improving entrepreneurial skills.
5. Most of the students said that management education should focus on development of entrepreneurs
6. Most of the students are agree to who are interested in entrepreneurship should choose management education.

7. CONCLUSION

Every student has a business interest. If students are interested in management education, they should plan numerous extracurricular activities that foster an entrepreneurial mindsset. Students with a business interest should select management education. The theory included into management education is particularly beneficial for students' development of entrepreneurial skills. It will assist students in comprehending how management education improves entrepreneurial skills.

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CHALLENGES OF EDUCATION IN NEP 2020

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ABSTRACT
Recently, the National Education Policy (NEP) 2020 was announced by the Ministry of Human Resource Development. The policy is aimed at transforming the Indian education system to meet the needs of the 21st century.

The new policy seeks rectification of poor literacy and numeracy outcomes associated with primary schools, reduction in dropout levels in middle and secondary schools, and adoption of the multidisciplinary approach in the higher education system.

Apart from this, the policy also focuses on early childhood care, restructuring curriculum and pedagogy, reforming assessments and exams, and investing in teacher training and broadening their appraisal.

Though the NEP 2020 seeks to bring a holistic change to the Indian education system, its success depends on the will and way in which it is implemented. In NEP 2020, education faces a number of challenges, including a mismatch between knowledge and jobs, the need for massive resources, and so on.

Keywords: Significance, Implementation, Challenges, Issues, Outcomes

INTRODUCTION
The National Education Policy of India 2020 (NEP 2020), which was started by the Union Cabinet Minister of India on July 29, 2020, outlines the vision of a new education system in India. The new policy replaces the previous National Policy on Education, 1986. The policy is a comprehensive framework for elementary education, higher education, and vocational training in both rural and urban India. The policy aims to transform India's education system by 2030.

Shortly after the release of the policy, the government clarified that no one will be forced to study any particular language and that the medium of instruction will not be shifted from English to any regional language. The language policy in NEP is a broad guideline and advisory in nature, and it is up to the states, institutions, and schools to decide on the implementation.

The main aim of the government is to make schooling available to everyone with the help of NEP 2020. According to the National Education Policy 2020, the 5+3+3+4 structure will replace the existing 10+2 structure. This structure focuses on students' formative years of learning. The Government of India will establish a Parakh National Education Policy. These are the merits of NEP 2020.

But there are a few challenges, which are discussed below, for education in NEP 2020.

REVIEW OF LITERATURE
1) Kumar: 'New Education Policy (NEP) 2020: A roadmap for India 2.0' It explains the systematic review of existing literature and main objectives of NEP 2020.
2) BL Gupta, AK Choubey: 'Higher education institution' They have given some guidelines for obtaining and sustaining autonomy in the context of NEP 2020.
3) K Das, A Barman: 'Psychology and education 2021' A review triangulation for discerning NEP 2020 India's relevance.
4) The Hindu: 'A long road: On National Education Policy 2020' This article in the newspaper 'THE HINDU' talks about the issues of NEP 2020.

RESEARCH METHODOLOGY

Secondary Data was collected by Journals and various websites were browsed for the information about NEP 2020.

OBJECTIVES

1) To study the issues in NEP 2020.
2) To understand Significance of NEP 2020
3) To understand the challenges and outcomes of education in NEP 2020.

HYPOTHESIS

The main Hypothesis of present Research paper is as follows:

1) NEP 2020 cannot be implemented in Rural schools where the Teacher-Student ratio falls.
2) For implementation of NEP, it will require heavy infrastructure coupled with a large teaching faculty.
3) It will also require a lot of funds pumped into the system.

IMPLEMENTATION OF NEP 2020

1) In early August 2021, Karnataka became the first state to issue an order with regard to implementing NEP.
2) On 26 th August 2021, Madhya Pradesh implemented NEP 2020.
3) Uttar Pradesh Chief Minister Yogi Adityanath said the National Education Policy-2020 will be implemented in phases by 2022.
4) The Telangana State government has decided to implement the newly announced National Education Policy 2020 (NEP 2020) in the State.
5) Maharashtra CM Uddhav Thackeray directs to appoint experts' committee for implementation of new education policy.
6) Andhra Chief Minister Y.S. Jagan Mohan Reddy has directed officials of the Education Department to implement the National Education Policy 2020 in letter and spirit across the State.
7) Rajasthan Governor Kalraj Mishra said that NEP 2020 will be implemented in phased manner.
8) The Chief Minister of Assam, Himanta Biswa Sarma said that NEP 2020 will be implemented from 1 April 2022.
9) In April 2022, the UGC (University Grants Commission) approved simultaneous dual degrees, both in physical and online modes.
10) In October 2022, Ministry of Education released New Curriculum Framework for 3-8 years children and National Credit Framework inline of NEP 2020.

SIGNIFICANCE OF NEP 2020

National Education Policy 2020 was announced on 29.07.2020. The National Education Policy 2020 proposes various reforms in school education as well as higher education including technical education. A number of action points/activities for implementation in school education as well as higher education are mentioned in the National Education Policy 2020. Details of the salient features of NEP 2020 are as follows-

1) Ensuring Universal Access at All Levels of schooling from pre-primary school to Grade 12.

2) Ensuring quality early childhood care and education for all children between 3-6 years.
3) New Curricular and Pedagogical Structure (5+3+3+4).
4) No hard separations between arts and sciences, between curricular and extracurricular activities, between vocational and academic streams.
5) Establishing National Mission on Foundational Literacy and Numeracy.
6) Emphasis on promoting multilingualism and Indian languages; The medium of instruction until at least Grade 5, but preferably till Grade 8 and beyond, will be the home language/mother tongue/local language/regional language.
7) Assessment reforms - Board Exams on up to two occasions during any given school year, one main examination and one for improvement, if desired.
8) Setting up of a new National Assessment Centre, PARAKH (Performance Assessment, Review, and Analysis of Knowledge for Holistic Development).
9) Equitable and inclusive education - Special emphasis given on Socially and Economically Disadvantaged Groups (SEDGs).
10) A separate Gender Inclusion fund and Special Education Zones for disadvantaged regions and groups.
11) Robust and transparent processes for recruitment of teachers and merit based performance.
12) Ensuring availability of all resources through school complexes and clusters.
13) Setting up of the State School Standards Authority (SSSA).
14) Exposure of vocational education in school and higher education systems.
15) Increasing GER in higher education to 50%.
16) Holistic and Multidisciplinary Education with multiple entry/exit options.
17) NTA to offer Common Entrance Exam for Admission to HEIs.

CHALLENGES OF EDUCATION IN NEP 2020

1) Lack of integration: There are lags between the integration of technology and pedagogy. There are big gaps such as lifelong learning, which should have been a key element of upgrading to emerging sciences.
2) Language barrier: The NEP seeks to enable home language learning up to class five, in order to improve learning outcomes. Sure, early comprehension of concepts is better in the home language but it may create difficulties for a student for his/her future progress. If the foundations are not sound, learning suffers, even with the best of teaching and infrastructure. But it is also true that a core goal of education is social and economic mobility, and the language of mobility in India is English.
3) Multilingualism debate: Home language succeeds in places where the ecosystem extends all the way through higher education and into employment. Without such an ecosystem in place, this may not be good enough. The NEP speaks of multilingualism and that must be emphasized. Most classes in India are de facto bilingual. Some states are blissfully considering this policy as a futile attempt to impose Hindi.
4) Lack of funds: According to Economic Survey 2019-2020, the public spending on education was 3.1% of the GDP. A shift in the cost structure of education is inevitable. While funding at 6% of GDP remains doubtful, it is possible that parts of the transformation are achievable at a lower cost for greater scale.

5) A move in haste: The country is grappled with months of COVID 19-induced lockdowns. The policy had to have parliamentary discussions; it should have undergone a decent parliamentary debate and deliberations considering diverse opinions.
6) Overambitious: All aforesaid policy moves require enormous resources. An ambitious target of public spending at 6% of GDP has been set. This is certainly a tall order, given the current tax-to-GDP ratio and competing claims on the national exchequer of healthcare, national security and other key sectors. The exchequer itself is choked meeting the current expenditure.
7) Pedagogical limitations: The document talks about flexibility, choice, experimentation. In higher education, the document recognizes that there is a diversity of pedagogical needs. If it is a mandated option within single institutions, this will be a disaster, since structuring a curriculum for a classroom that has both one-year diploma students and four-year degree students' takes away from the identity of the institution.
8) Institutional limitations: A healthy education system will comprise a diversity of institutions, not a forced multi-disciplinarily one. Students should have a choice for different kinds of institutions. The policy risks creating a new kind of institutional isomorphism mandated from the Centre.
9) Issues with examinations: Exams are neurotic experiences because of competition; the consequences of a slight slip in performance are huge in terms of opportunities. So the answer to the exam conundrum lies in the structure of opportunity. India is far from that condition. This will require a less unequal society both in terms of access to quality institutions, and income differentials consequent upon access to those institutions.

There is a persistent mismatch between the knowledge & skills imparted and the jobs available. This has been one of the main challenges that have affected the Indian education system since Independence.

NEP 2020 failed to check this, as it is silent on education related to emerging technological fields like artificial intelligence, cyberspace, nanotech, etc.

An ambitious target of public spending at 6% of GDP has been set. Mobilizing financial resources will be a big challenge, given the low tax-to-GDP ratio and competing claims on the national exchequer of healthcare, national security and other key sectors.

The policy has also been criticized due to the legal complexities surrounding the applicability of two operative policies namely The Right to Education Act, 2009 and the New Education Policy, 2020. Certain provisions such as the age of starting schooling will need to be deliberated upon, in order to resolve any conundrum between the statute and the recently introduced policy in the longer run.

It is pertinent to note that past attempts at parliamentary legislations under the erstwhile regulatory set up have not been successful. The failure can be attributed to the role of regulators and the intended legislative changes being out of alignment, as in the case of Foreign Educational Institutions Bill, 2010, which lapsed; and the proposed Higher Education Commission of India Act, 2018 which remained did not reach the Parliament.

While the Universities Grants Commission and the All India Council for Technical Education have played a major role, questions pertaining to the role of the UGC and AICTE remain unanswered under the new policy.

Doubling the Gross Enrolment Ratio in higher education by 2035 which is one of the stated goals of the policy will mean that we must open one new university every week, for the next 15

years.

In higher education, the National Education Policy 2020's focus on interdisciplinary learning.

CONCLUSION

NEP 2020 is going to be helpful for our nation India and it will create our youth in front of the world. It will provide a lot of individual attention to the students who have special needs and also education will be provided at all the levels through the National education policy 2020. The stages of education in India are also renovated in the new education policy and these new stages are definitely complimenting the latest educational trends around the world.

Every good event happening to transform the future has some problems, but we should be ready as educators to face them and also resolve them peacefully through knowledge only and not get demoralized from it but struggle to solve it. Even though there are many drawbacks, the merits are more in number. It is believed by many that by implementing these changes, the Indian academic system will be taken a step higher. The NEP 2020 will surely take us on a path of hope.

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NEP 2020: AN OPPORTUNITY, CHALLENGES AND BENEFITS OF E-LEARNING

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ABSTRACT

E-learning is a formalized teaching-based learning system that makes use of electronic resources. E-learning is primarily based on using computers and the Internet, while teaching can also take place in or outside of formal classroom settings.

Online learning is the practice of receiving instruction electronically via a variety of multimedia and Internet-based platforms and tools. It is synonymous with words like e-learning, computer-assisted education, web-based learning, and Internet-based learning. Because the contents are accessible from anywhere and at any time, it is an efficient approach to offer courses and encourages active and autonomous learning. Through group discussions and private conversations, students can communicate with classmates from around the globe. The study materials are available for a limitless number of accesses.

The old National Policy on Education, 1986, has been replaced with the new policy. In both rural and urban India, the policy provides a comprehensive framework for education from early childhood through higher education. It also covers vocational training. The National Education Policy 2020 is a new education strategy that the Ministry of Education (MoE) has unveiled. The new education strategy is the first one of the twenty-first century to handle the numerous expanding developmental features of our nation. In order to create a new system that is in line with the objectives of 21st-century education, this strategy suggests overhauling and modifying every area of the educational framework, including its regulation and governance. A significant strategy to give the country better students, professionals, and people is to change the educational policies.

Keywords: Internet based Education, Smart learning, Easy to understand, Visual knowledge.

INTRODUCTION

Realizing one's full potential, creating a fair and just society, and advancing global progress all depend on education. The secret to India's continuous rise and leadership on the international stage in terms of economic growth, social fairness and equality, scientific advancement, national integration, and cultural preservation is ensuring that everyone has access to high-quality education. The best method to develop and utilize our nation's many talents and resources for the benefit of the individual, the society, the nation, and the world is through universal high-quality education. India will have the youngest people in the world over the next ten years, and the future of our nation will depend on our capacity to offer them chances for high-quality education.

E-learning plays a very interesting and vital role in educating the students and knowledge seekers. E-learning is a system where Receiving education electronically using a range of multimedia and Internet-based platforms and applications is known as online learning. E-learning can be used anywhere at any time. Both the teacher and the learner must be present in a classroom or other setting akin to this for regular or traditional learning methods to take place. On the other hand, with e-learning techniques, the teacher can easily create the course in a single sitting. And the students can complete it at their own pace even from a distance. In the case of e-learning, they don't have to be present in the same location as the teachers.

Instead of the other way around, online students can plan their study time around the rest of their day. Because they can work at their own pace, students can juggle their duties to

employment, family, and education. By removing the requirement for learners to go to the same location, e-learning reduces the cost and time associated with travel. Additionally, no specialized tools or learning resources are needed for any of their course's modules.

Visual presentations of information help students recall it more thoroughly and for longer. Videos and images are supposedly processed immediately in long-term memory. Moving films and photos from one place to another is easy. Sending files and papers across the globe is possible. It can be simply adapted to different technologies. You may learn at your own pace and time with e-learning. You are not required to finish projects or study at the same pace as others. From one subject or section to the next, you can go at your own leisure.

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RESEARCH METHODOLOGY

Data gathered directly from sources is considered primary research. This indicates that the researcher either performs the study independently or hires a data collection company to do it for them. By conducting primary research, you avoid using pre-existing data samples and instead go right to the source. Surveys, observations, experiments, questionnaires, personal interviews, etc.

Secondary data is information that was gathered earlier by another party. Secondary data are information that has already been gathered or that was gained for purposes aside from the research goal of the academic publication. This kind of information is already accessible from numerous sources in various formats. Government publications, websites, books, journal articles, internal records etc.

The research is supported by secondary data. To gain an in-depth understanding of the topic, famous research researchers conduct a literature review. During the research, a number of published reports and websites were examined.

OBJECTIVES

1. To make the learning process easy.
2. To get adapted to the new technology.
3. To Improve learner engagement by increasing user accessibility and time flexibility.

HYPOTHESIS

1. Online students can schedule their study time around the rest of their day, rather than the other way around. Students can work at their own pace, making it possible to balance work and family obligations with education.
2. E-learning eliminates the need for learners to travel to the same location, saving both money and time on transportation. Furthermore, no special equipment or learning resources are required for each module of their course.
3. E-Learning allows you to learn on your own schedule and time. It is not necessary for you to complete the same assignments or learn at the same time as others. You can move at your own pace from one topic or segment to the next.
4. When information is presented visually, learners remember it more accurately and for a longer period of time. Long-term memory is said to process videos and images directly.
5. It is simple to move videos and images from one location to another. Files and documents can be sent from one end of the world to the other. It is easily transferable from one technology to another.

NEP 2020: Understanding E-learning and it's Opportunities, Challenges and Benefits

The aim for India's future educational system is set forth in the National Education Policy of India 2020 (NEP 2020), which was launched by the Indian Union Cabinet on July 29, 2020. The old National Policy on Education, 1986, has been replaced with the new policy. In both rural and urban India, the policy provides a comprehensive framework for education from early childhood through higher education. It also covers vocational training. By 2030, the strategy wants to completely overhaul India's educational system.

The administration quickly stressed that no one will be forced to study any particular language, and that English will not be replaced with any regional language as the language of teaching. The implementation of the language policy in NEP is up to the states, organizations, and schools; it is intended to be a broad guideline and advisory in nature. India's Concurrent List includes the subject of education.

According to the "Unified District Information System for Education Plus" (UDISE) 2020–21, 28 languages are to be used in teaching and learning in grades, the Press Information Bureau reported on August 1st, 2022. (1-5). The languages are: English, Bodo, Khasi, Garo, Mizo, French, Hmar, Karbi, Santhali, Bhodi, Purgi, Bengali, Gujarati, Hindi, Konkani, kannada, Malayalam, Meitei (Manipuri), Marathi, Nepali, Maithili, Punjabi, odia,Sanskrit, Sindhi, Tamil, Telugu, Urdu. The general formula for the new education policy is [5+3+3+4]. The focus of new educational policy is the learner, who is not dependent on government employment while beginning their own firm. The student's biggest adjustment is learning a foreign language and switching to a different stream after eighth grade.

Understanding of E-learning

It is clear that e-learning is expanding quickly, which is not surprising given that it allows anybody the opportunity to study. Additionally, the majority of e-learning systems are not time-sensitive, making it possible for you to enroll regardless of where you reside or the day of the week or time of day that works best for your schedule.

It allows a student to learn at their own pace and gives educators and educational institutions a chance to reach a much larger audience. If studying at night is a student's chosen time, e-learning offers that opportunity. All you want is a computer, a reliable Internet connection, and an open mind.

E-learning provides access to high-quality education for a variety of learners, including those who are unable or unlikely to enroll in traditional classroom settings. Facilitating learning is made simpler by extending the fundamental infrastructure, such as computer and internet connectivity, from schools to convenient locations accessible to all types of individuals.

BENEFITS OF E-LEARNING

People with high levels of mobility due to their jobs are able to access materials as long as they have the necessary electronic equipment thanks to the accessibility of information. A list of some of the most common and ideal chances for e-learning is provided in the paragraphs that follow.

E-learning is effective at achieving positive results. E Learning is not confined by time or space. It's Fairer since more individuals can learn thanks to it. E-Learning supports unique learning needs and styles. It is Self-paced, economical, and productive E-learning is effective at achieving positive results. E Learning is not confined by time or space. It's Fairer since more individuals can learn thanks to it. E-Learning supports unique learning needs and styles. It is Self-paced, economical, and productive. It is simple to change but constant. Constantly evolving and is able to be used analytically. Integrating resilience into the educational system ensuring that disadvantaged populations complete their education. It encourages cooperation. It is also A potential remedy for the teacher shortage.

Benefits of E-Learning

- Accommodates Everyone’s need
- Lectures can be taken multiple times
- Quick Delivery of lessons
- Scalability
- Consistency

- Reduced Costs
- Environment-Friendly

Challenges of E-learning

E-learning provides advantages, but it also has several challenges that might be problematic. It's challenging to keep students interested in their e-learning material. It's challenging to hold students responsible for putting what they've learned into practice. Certain training subjects are better suited for e-learning. E-learning is quickly out of date and needs frequent updates.

One of the main limitations of online classrooms is the lack of training, the bandwidth limitations, and the lower level of preparation, particularly in remote places. One of the main issues is that different students may not have access to equipment needed for online learning, such as computers and internet connections.

SUGGESTIONS

1. Researchers suggest that even in the traditional method of teaching teachers should use e-learning so it can be easy to understand the content for every level of students.
2. Using e-learning should be done till it is understandable or till it's necessary, students should also get practical knowledge while e-learning.
3. E-learning should be available everywhere so everyone can get knowledge and information.

CONCLUSION

Today, everyone has a fundamental need for and a right to education. We need education to accomplish our aims and contribute to the creation of a just society. In a similar vein, education contributes significantly to a country's national growth. The National Education Policy 2020 was authorized by the Government of India since there is a significant change taking place in the world's knowledge. You can learn more about how the National Education Policy 1986, which is now 34 years old, was superseded by the New Education Policy 2020 by reading this essay on it.

The goal of this new policy is to make education available to everyone from preschool through high school. With a 100% GRE (Gross Enrollment Ratio) in academics, it intends to achieve that. It is intended to be accomplished by 2030. First, the proposal suggests expanding higher education in India at international universities. A four-year, multidisciplinary undergraduate curriculum with a range of exit choices is what it intends to introduce. As a result, this new strategy aims to transform India into a superpower in the field of knowledge.

In conclusion, E-learning has become more and more popular recently, with many new graduates and members of the working class enrolling in online courses to advance their careers. High levels of student satisfaction are a result of technological development and the flexibility offered by online learning. It is a comprehensive approach to education that satisfies the demands of today's digital native. E-learning is a setting that values cooperation and autonomy. E-learning involves more than just a shift in technology. It is a component of redefining how our species imparts knowledge, abilities, and values to future workers and students. I'll close this book by daring to forecast a few things about the future of e-learning and the purposes it serves.

There will be millions or billions of information modules available to students. Some of them will be simple text and graphic Web pages. Simulations using many media may be among them. E-learning is becoming the standard method of delivering education and training in many industries. There are four e-learning secrets. The first trick is to teach students what they need to know in the manner in which they learn best. Clarifying learning objectives is the second secret. The third secret advances the previous two. It is to put the appropriate goals in focus. The power of testing holds the final secret.

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COMPARATIVE STUDY ON EFFECTIVENESS OF ONLINE AND OFFLINE LEARNING IN MULTIDISCIPLINARY EDUCATION

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ABSTRACT

The study of online and offline learning is more effective in multidisciplinary education. The sudden attack of COVID-19 in the whole country and India is expected in 2020.

Start from online colleges, and suddenly the learning students, colleges, teachers, and universities are affected. In COVID-19, students and teachers must accept the COVID-19 situation, and the government announced online learning for all college students to the teachers. It is a very difficult situation for teachers and students to attain the online learning classes. But then online learning is very safe for college students and teachers in COVID 19. In online learning students first time learned on online platform and attained the online classes.

Offline learning is the most effective and important learning mode for college students and teachers. Offline learning means students and teachers are in face-to-face learning mode. In the college environment, in offline learning, teachers teach students which is an interactive method of learning. Offline learning is the most powerful method of learning for students because they attract and learn from the college environment and climate. In offline learning, students must be present in class and follow the college's rules and regulations. In offline learning, students get help with their queries on the spot and get more options for their queries.

If we compare online and offline learning, online learning is more ineffective and sufficient, and most of the things mean offline learning is better than online learning for college students and teachers. Because they can concentrate on the lecture only in offline mode, there is only a blackboard and teachers and no other distraction. And students are prepared mentally, physically, and practically as well. But in online mode, this is not possible for students. Online learning means there is only virtual learning. According to research, there is only one way of communicating, but in offline learning, there is two-way communication. In offline learning, college students present themselves and actively participates in activities more than in online learning classes because most of the students avoid online learning

Keywords: Career, aim, Offline learning, online learning

INTRODUCTION

Offline learning is more effective in today's situation. Because in COVID 19, online learning is not face-to-face learning, there is only face-to-face communication with the teacher and college students. Online learning means teachers and students come online without internet issues.

In online learning, students physically attend the online class. But in online and offline learning, the most important and common things are teaching and studying. Online learning when a teacher teaches to students or studying the students on an online platform. And they used online gadgets, which means Mobile phones, laptops, computers, tans, and so on in online learning, the students were unable to solve their query on the spot.

Online learning is only digital learning and teaching. Online learning lets students attend the class anytime, anywhere, and anyplace. Even though the students attend the classes if they are busy with any work. In online learning, teachers do not talk to students about their behavior. In online learning, teachers use a digital platform, which means that when they are teaching college students online, they use online audio, online video, online charts, and chats in which students ask questions. But in online learning, what's most important to our digital gadget is a

good internet connection. Online learning is a very simple platform. This is one type of video meeting or video conference. In offline learning, students come to know their responsibilities to reach the class at the exact time. Online learning is not more effective than offline learning. And in online learning, students are not allowed to participate in or enjoy any other competition.

Offline learning is more effective. And it is attended by physically, mentally, and practically. When we reach the class, connectivity issues are not an issue. In offline learning, teachers and students meet face-to-face, and teachers teach students. There is face-to-face communication. In offline learning, students ask the query to teachers, solve it on the spot, and they get more options and many answers from the query. Students can participate in so many competitions practically and can learn new things and can enjoy it. In offline learning, students learn about the college environment. In offline learning, teachers get responses from students. Offline learning is a very important connection between teachers and students. In offline learning teachers look at the student behaviour and take the action or talk to the student. Both online and traditional teaching involve students and teachers. Classrooms are a part of both online and offline learning; online learning uses a virtual classroom while offline learning uses a real classroom.

NEP (New Education Policy)

In COVID 19, the government and university follow the students' this New Education Policy. A new education policy is most important and sufficient for online and offline learning in multidisciplinary education. A new education policy was accepted for the 2020 In COVID 19, in this situation, students accepted the online classes, and teachers also accepted the online teaching with electronic things. In COVID 19, this new education policy is more useful and helpful, but the first few days are the most difficult to use for college students and teachers. This policy are used in both Urban and rural areas.

In the new education policy, all electronic and offline learning gadgets are allowed. New education policy is also used in offline learning, for example, in colleges where different study apps, college teaching apps, university apps, and so many other apps are made and used by students in different colleges. These apps are very useful and save time. According to the new education policy, the higher education policy should be developed at the college level. This new education policy is most important for online and offline learning in multidisciplinary education. New education policy 2020 encourages colleges to share instructors across campuses in order to address the teacher shortage, particularly for subjects like art, craft, music, and dance. The policy also suggests approaching prominent individuals or specialists in the area to serve as "master instructors" of traditional arts.

RESEARCH METHODOLOGY

Secondary data was used for this research paper. Researchers collect information through various government websites, techniques of learning methods collected from the college students and present situation and experience. This research is based only on the secondary data method. This is simply a method used in this research. Online-learning often uses one of two methods: self-paced or facilitated/instructor-led.

OBJECTIVES

- To understand the situation.
- To understand the offline and online modes of learning.
- To understand the importance of practically and physically learning.
- To understand how to prepare students to focus on their career.
- To understand how to learn effectively.

HYPOTHESES

1. Online learning students attended the class anytime, anywhere and anyplace.
2. In offline learning students are attending the classes physically by going to college and learning how to interact with people and many new things.

Online and Offline Learning

Online and offline learning is very different. Online learning is not effective. Offline learning is more effective. In Online learning students did not give importance to time management but they got the knowledge of many new technologies and online platforms. In Online learning students didn't attend the class physically and practically. In online learning, meaning online attendance, online lectures, online exam, online oral, online exams, there is online communication. Online learning is also called "e-learning." Online learning requires good internet connectivity. Without connectivity, it is not possible to attend online lectures. This is very important to both teachers and students. The comfort of having access to the course materials at any time will be provided for the students. Students have the freedom to access the material from any location and on any device. Students can learn comfortably while taking classes online instead of in cramped classrooms.

Offline learning is very effective and sufficient. Offline learning is important, and the main thing is timing. Offline learning is based on only three main things: interaction with new people, learning new things, and personal. Development. Offline learning means going to college and attending the lectures with face-to-face communication with the college teachers. With the college environment of offline learning, students go to the library, on the grounds for physical education, and communicate with college students and college friends.

There is an advantage and a disadvantage. The advantages of online and offline learning are as follows:

PROS OF ONLINE LEARNING

1. The Effectiveness

Online learning offers teachers an efficient approach to deliver lessons to students. Teachers can incorporate all of the resources available for online learning into their lesson plans, including videos, PDFs, and podcasts.

2. Time and Place Accessibility

The flexibility of attending classes from any location is another benefit of online education. As opposed to being constrained by geographic boundaries, it also enables schools to connect with a wider network of students.

3. Cost-Effectiveness

Less expensive tuition is another benefit of online education. When compared to in-person instruction, online education is significantly less expensive. This is so that the costs of student transportation, meals, and—most significantly—real estate are removed from the equation when learning is done online.

4. Increased Attendance of Students

Less likelihood of students missing lessons exists because online courses can be attended from home or other convenient locations.

5. Supports Various Learning Styles

Each student has a unique educational path and a unique learning style. While some students like to study visually, others learn best through audio. Similar to how some pupils excel in the classroom, some are lone learners who are easily distracted by huge groups.

DIFFICULTIES OF ONLINE LEARNING

1. Lack of Focus on Screens

The difficulty of maintaining attention on a computer for extended periods of time is one of the largest obstacles of online learning for many students. Students are more likely to become quickly distracted by social media or other websites when they are learning online. In order to keep students interested in the lecture and concentrating, teachers must maintain their online classrooms in a clear, engaging, and interactive manner.

2. Issues with Technology

Internet connectivity is a major issue for online education. Despite the fact that internet usage has increased dramatically over the past few years, finding a reliable connection with enough speed can be difficult in smaller cities and villages.

3. A Feeling of Isolation

Being around their classmates allows students to learn a lot. However, there are hardly any direct physical encounters between students and lecturers in an online course. Students frequently experience a sense of isolation as a result of this.

4. Teacher Education

Teachers who use online learning must have a fundamental understanding of using digital learning tools. This isn't always the case, though. Teachers frequently possess a very fundamental understanding of technology. They occasionally even lack the equipment and resources needed to conduct online classes.

5. Limit Your Screen Time

Many parents are worried about the health risks associated with letting their kids spend so much time staring at screens. One of the greatest concerns and drawbacks of online learning is the rise in screen time. Due to spending so much time slumped over a screen, pupils can also have poor posture and other physical issues.

Advantages of Offline Learning

- Time is valuable.
- Students strongly focus on the syllabus.
- Students learn in a college environment.
- Teachers take action on student behaviors.
- Students should be willing to respond to teachers' questions.
- The student should focus on his career.

Online and Offline Learning are Similar to One Other

Both online and traditional teaching involve students and teachers.

These procedures are designed to teach students new information.

Classrooms are a part of both online and offline learning; online learning uses a virtual classroom while offline learning uses a real classroom.

FOLLOWING ARE THE DIFFERENCE BETWEEN ONLINE LEARNING AND OFFLINE LEARNING.

1. Classroom Type

While offline learning can occur within or outside of the conventional classroom, online learning takes place in a virtual classroom.

2. Approach to Education

When it comes to online education, the manner of instruction is more digitalized since professors can utilize a variety of online learning technologies to help students learn, including audio, video, virtual whiteboards, animations, live chats, and virtual conference rooms. Offline learning, in comparison, gives students the option to learn in a more real-world setting while also offering them the chance to engage with peers and teachers and actively participate in real-time debates.

3. Teacher's position

Online learning enables teachers to more effectively track students' reactions and development as well as to keep an eye on and manage their behaviour.

4. Role of Students

Since they can learn at their own pace online, pupils are more independent than they are in traditional classroom settings, where they are strictly supervised by teachers.

5. Student Participation

Due to the face-to-face contacts involved in offline education, student engagement is higher than it is in online education.

6. Student Interpersonal Skills

Students' interpersonal skills are developed less effectively through online learning than through traditional classroom instruction. There is no competition among students since online learning isolates the learner. But competition and interaction in traditional classroom settings are more common.

7. Convenience

As long as students have a computer and a strong internet connection, it's simple for them to participate in online learning; nevertheless, in order to participate in offline learning, they must travel to the educational facility, which can be time consuming.

SUGGESTIONS

Online and offline learning teachers give their 100% attention to students. Offline learning focuses on college students' safety. Over**emphasizing** **emphasizes** the importance of student activity. Students can display their ideas on actual whiteboards. Permit students to share their screen so they can present their work and describe how they came up with a solution. Make use of virtual whiteboards to boost participation. Use tools like stamps, emoticons, and sketching tools.

CONCLUSION

Online learning does not show effectiveness for college students, teachers, and other institutions and universities. We faced various challenges in COVID 19. Online learning consists of so many connectivity and internet issues. And it is not more sufficient for college students than offline learning.

In offline learning, this is not an issue for college students. Because they can attend the lecture physically and mentally in college and in his or her classroom. Offline learning helps to create a good connection between teacher and students. In offline learning, students can be present in class and attend all lectures, in which they can learn and understand new things which is impossible in online learning. Online learning is a process where students access education and knowledge through virtual classrooms, whereas offline learning involves traditional education that allows students to have face-to-face interactions with teachers and peer groups. This is the main distinction between online learning and offline learning.

RELEVANCE OF COMPUTER SCIENCE WITH CHEMISTRY IN MULTIDISCIPLINARY EDUCATION

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ABSTRACT
Chemists frequently employ computational chemistry to gather comprehensive data on molecular characteristics. The characteristics of molecules can be calculated using a variety of algorithms and computer programs, enabling researchers to create chemical substances that are both safe and effective as medications or other therapeutics. Chemistry is an experimental discipline that relies on the physical principles of nature and speaks a language of mathematics with the help of visual aids. From an atomic and molecular perspective, it discusses the characteristics of materials, especially those crucial to the life process. The modelling of matter from a molecular perspective, chemical information, the chemistry setup, and computing in the chemical laboratory are the five complementing fields that are covered in this chapter. The field of chemistry spans the globe.

Keywords: Computational chemistry, analyzation, advancing modern scientific approaches

INTRODUCTION
Without a doubt, the development and advancement of many facets of life depend greatly on chemistry. How important is chemistry, though? It is the multitude of branches and sub-branes that make up chemistry. One of the more inventive subfields of chemistry is computational chemistry, which makes use of computer algorithms to address challenging chemical issues. Computational chemistry allows researchers to predict a wide range of properties as well as the mechanisms underlying chemical reactions, particularly for challenging experiments. Not many people are aware of the real workings of this discipline of chemistry, despite the fact that it is crucial to the study and creation of chemicals and products. Ten reasons computational chemistry is so crucial are listed below to help clear up any misunderstandings.

10 REASONS WHY COMPUTATIONAL CHEMISTRY IS IMPORTANT

1. Computational Chemistry Enables Scientists to Determine Molecular Geometries
Computational chemistry is frequently used for predicting or predicting molecular geometries and electron distribution within molecules by employing theoretical chemistry methods. Chemists learn about bond lengths, bond angles, and other geometrical parameters by determining the 3-D geometry of a molecule. As a result, computational chemistry is important in studying and analyzing the properties of molecules and how they behave in general.

2. Computational Chemistry is Used to Determine Reaction Rates and Equilibria
A chemical reaction's reaction rate constant allows chemists to quantify the rate and direction of the reaction. Chemists frequently employ quantum mechanical calculations and computational chemistry to forecast rate constants. Furthermore, NMR line shape analysis and spin saturation transfer measurements are frequently used to determine rate constants for specific chemical processes. As a result, computational chemistry is important for predicting reaction rate coefficients and equilibria.

3. Computational Chemistry Aids Scientists in Determining Molecule Properties
Knowing the properties of a given molecule is essential for using these molecules for research or product development. I mean the chemical, physical, and structural properties of various molecules when I say molecular properties. Chemists frequently use computational chemistry to obtain detailed information about molecular properties. The properties of molecules can be

calculated using various algorithms and computer programmes, allowing scientists to develop safe and effective drugs or other chemical agents.

4. Computational Chemistry Helps Chemists Analyse and Comprehend Experimental Data.

While some chemical experiments are relatively simple and do not necessitate complex calculations, others are so complex that data analysis without an algorithm is nearly impossible. Chemists currently refer to computational chemistry as an analytical tool for analyzing experimental data and comprehending the results. This not only simplifies the overall process, but also ensures the accuracy of the results.

5. Computational Chemistry is Essential for Predicting Unknown Molecule Properties

It is critical to identify and quantify unknown molecules. While chemical reactions can confirm the presence of certain chemicals, they cannot identify some molecules. Chemists frequently use computational chemistry to determine the properties of unknown molecules. Mass spectrometers, in particular, are frequently used to predict the properties of novel molecules.

6. Computational Chemistry is Vital for Predicting New Experiments' Reaction Mechanisms

Numerous algorithms and computer programmes have access to enough data from the vast number of experiments that have been properly investigated to be able to forecast the reaction mechanisms of new trials. Additionally, computational chemistry is essential for understanding new experiments before performing them. This is particularly crucial when it comes to hazardous chemical reactions or pricey investigations.

7. Effective Synthesis of New Compounds is Made Possible by Computational Chemistry

The effective synthesis of new compounds is facilitated by computational chemistry, which may be used to anticipate the reaction processes of novel experiments and the properties of unidentified molecules. Creating a productive method to synthesis the components is essential for producing goods in large quantities. To accomplish the goal would be very difficult without computational chemistry.

8. Critical Data are Provided by Computational Chemistry Without Excessive Time or Financial Resources

While certain chemical reactions can be carried out rather easily, others call for a number of steps and a wide range of pricey substances. Even if you cannot reduce a 10-step reaction to a 1-step experiment, you can greatly simplify the procedure as a whole. Scientists frequently utilize computational chemistry to get crucial data and accomplish the aim in order to avoid spending too much time or money on conducting a chemical experiment.

9. Modern Scientific Approaches are Developed and Advanced Through Computational Chemistry

Scientific methods progress along with technological advancements. Chemists can now tackle many issues with less effort and expense because to technological improvements. Modern chemical techniques can advance because computational chemistry can be used to anticipate a variety of properties of molecules and chemical reactions. Without computational chemistry, scientists would have to spend many hours doing experiments or perhaps be unable to carry out costly or risky ones.

10. The Pharmaceutical Industry Makes Heavy Use of Computational Chemistry

In the pharmaceutical sector, chemistry is essential. Chemistry offers thorough knowledge on several facets of medication design, whether we're talking about material testing or quality control. Several phases of drug development, in particular, include computational chemistry. This area of chemistry enables researchers to forecast how particular molecules will interact

with one another. Therefore, using computational methods to create safe and effective medications is essential.

An international communication network is made possible by the common and widely used language among chemists. Computers open up entirely new possibilities in the field of chemistry for modelling complex reactions, managing molecules with multiple nuclei and electrons quantitatively, and storing and retrieving enormous volumes of data and information of all types. When a chemist enters the world of computing, they not only become more powerful as chemists, but they can also find new ways to communicate with people in other fields.

Professor Dan Stack twisted a tinkertoy-like model of red and blue sticks and spheres in an effort to simplify organic chemistry. As Stack demonstrated the structure to the students, he remarked, "This is a dibromobutane molecule. However, a computer model is a different approach to visualise this chemical structure.

Stack set aside the plastic model and used his laptop and a chemical computer application to transfer the identical three-dimensional model onto the screen. With his mouse, he demonstrated the chemical structure from every perspective while demonstrating how to modify the online model to evaluate the compounds.

Computer applications from the recent boom in technology improve chemical education. Stanford University is a pioneer in computer science among academic institutions, fusing computational and chemical science to produce novel findings, interdisciplinary programmes, and Nobel Prizes.

According to the annual survey conducted by the Computing Research Association, the number of computer science majors increased by 22 percent nationwide in 2013; there are now 400 computer science majors on average at each university, marking the sixth year in a row that undergraduate enrollment has increased.

Universities like Harvard, MIT, Stanford, and the University of Pennsylvania are seeing a sharp rise in the number of students pursuing these majors. The study of computer science adds a layer to evaluate chemical processes, which is beneficial to the study of chemistry.

METHODOLOGY

The current researcher has opted for a computational study methodology to support his position on NEP 2020's comprehensive and diverse approach to education. This differs significantly fro m the purported computerised research process used in the field of chemistry. In reality, the rese archer favours using computational techniques to enhance and accelerate the area of chemistry, as well as computational aspects in chemistry that are multidisciplinary approaches to chemistry , which are inserted in NEP 2020. For this investigation, the analytical method is helpful.

OBJECTIVE

Computers open up entirely new possibilities in the field of chemistry for modelling complex reactions, managing molecules with multiple nuclei and electrons quantitatively, and storing and retrieving enormous volumes of data and information of all types. Certainly, chemistry is really important.

1) **Analog demonstration**
2) **Digital library**
3) **Symmetry in molecular systems and group theory**
4) **Advertise online**

5) Optimizing the use of open-source software applications in drug discovery

ANALOG DEMONSTRATION

The three-dimensional (3D) structure of molecules and how one molecule interacts with another are two of the most challenging concepts in chemistry for students. This issue is made much worse by the fact that it is incredibly challenging to show such reactions in a lecture or debate format. The tactics of PC-based work area molecular representation provide an even more capable and attractive alternative to the lecture format, which 3D molecular models also offer as a useful learning tool.

The method has been used a lot in a variety of contexts, including the creation of computer-based teaching aids. Molecular animation, a different related approach, has shown to be very effective at illuminating the fundamentals of reaction mechanisms in the classroom. There must be investment in computers, digital cameras, and other technology to give such molecular imaging. Screens, projectors faculty should be required to complete brief refresher courses before conferences and symposia, and computer training should be required for all faculty members. We might not have a choice but to embrace technology, despite our reservations about computers.

Digital Library

For teachers, staying current in their chosen fields is challenging given the quick speed of scientific publication. User-intense learning methods that enable students to develop computer access to literature abilities can be included as a component of lectures. In addition to writing a comment about the course or a specific advanced topic, groups of students were asked to conduct online literary searches on the internet. For students to comprehend and analyze the fast evolving science of chemistry, these online resources offer an engaging introduction as well as access to the most recent knowledge. The best way to find such material is by conducting a computer-based search of the scientific literature, professors should frequently emphasis to students. In-depth analyses of online literature have also been provided by several researchers.

By definition, libraries gather data to meet users' present and future information demands. Maintaining must also ensure the integrity of the information resources. Many people associate the term "digital library" with a vast universe of information accessible via the Internet and workstations at home or in the workplace, keeping true to the promise to make information available at any time, to any location, and for any user. The World Wide Web is frequently referred to as "the" digital library. Material should be arranged in digital libraries according to a consistent organisational concept, such as by topic or material type.

New possibilities for increasing the value of collections to users are provided by digital libraries. The chemist can use some of the digital libraries for free, but access to others is restricted to subscribers or users who pay a price per use. A few of these are offered on DVDs. Documents on these digital libraries have metadata—standard information about the document that is built into it and makes it easier for users to search for and retrieve information—built into them.

SYMMETRY IN MOLECULAR SYSTEMS AND GROUP THEORY

The majority of professors are not trained formally in group theory and molecular symmetry, but students are eager to learn about these topics and their applications. Despite this, a number of universities are rapidly integrating various parts of molecular symmetry into their curricula, either by creating new courses or by incorporating into already existing ones. Group theory, however, is more than just a collection of lessons discovered. Anyone with access to the Internet can search and browse the dynamic information that makes up Molecular Symmetry.

Faculty now have fresh chances to form partnerships in research and instruction thanks to Group Theory and Molecular Symmetry. Additionally, it's perfect for creating tasks that help pupils develop these more complex cognitive talents. Students can mine information from freely available databases and publications to make their own findings. Online resources including the Group Multiplication Table, Symmetry Elements, Molecular Point Group, and Character Tables are all free. Researchers frequently make use of these resources, and students can learn how to do the same for their course work. Public databases give lecturers the chance to integrate research and instruction into their courses while also allowing students to perform discovery research.

Students are also picking up useful cognitive abilities that will help them succeed in the workforce. Writing exam questions that ask students to access data from their research allows professors to get twice as much out of the time they spend preparing for class.

The next generation of faculty members will think that teaching and research are complementary rather than competitive if faculty members simultaneously improve their teaching and research. This is because students imitate behavior they see, so if faculty members improve their teaching and research at the same time.

Current initiatives to improve the capacity of researchers to handle and interpret data computationally have the potential to produce exceptional scientists who conduct cutting-edge, hypothesis-based research and who will hasten the advancement of science and technology.

ADVERTISE ONLINE

Only in a culture that encourages the free exchange of ideas does scientific research develop. Incorporating scientists from underdeveloped nations into the scientific community and democratising research are two significant benefits of online (internet) publication. The intended and obvious characteristics of scientific publishing, such as accessibility, economy, quality, innovation, and retrieval, can be more easily attained with electronic means.

Publication via the internet is significantly quicker and cheaper. Case studies for instruction can be easily made from research papers. The use of actual data and figures in reading assignments and in-person lectures is made easier by online access to papers. When students understand how to interpret actual facts, they gain. The time spent reading for research and getting ready for class is used to the faculty's advantage.

Furthermore, a second source of up-to-date information for research has been made available by the current trend towards the free delivery of scientific publications. Faculty members must submit articles to open access journals because of the clear advantages of having complete texts available. The complete text of the papers can now be accessed electronically for free by anybody with access to a computer browser thanks to the free publication of many journals online (both in HTML and PDF).

Optimizing the Use of Open-Source Software Applications in Drug Discovery

Drug discovery is an expensive and time-consuming procedure. In silico computational chemistry and molecular modelling have been increasingly popular recently as tools for computer-aided drug design. This review looks into the use of open-source or free software during the drug discovery process. Applications written in Java, Perl, and Python are included in the examined software packages, along with resources such software libraries. For cheminformatics methods to drug discovery, such as QSAR investigations, energy minimization, and docking studies in drug design projects, these packages may be helpful. This evaluation also looks at ways to incorporate open-source computer modelling software products into drug discovery initiatives.

RESULT

The utilization of this digitally stored data in organized and self- directed learning conditions is probably going to increase as movement across World Wide Web expands (Aiton, 2004). The academic society is very much aware of the significance of PCs in modern education, and some positive steps towards widespread adoption must be promoted. Institutions should assume liability for building computerized collections of different types and then share those accumulations with others, thus enhancing the benefits of the distributed nature of the Internet. The collections can be put up by specialists in each sector, who will then combine them to create massive digital libraries that are kept up to date by businesses for their customers and the Internet community at large. Nevertheless, PC use in chemical education in India is still in its infancy. In order for students to easily enter and research material, as well as to write reports, PCs at the graduate and undergraduate levels should be made available in the research facilities. Students studying chemistry must attend computer science classes designed to include software, such Microsoft Office and the Internet.

CONCLUSION:

Yet, the use of computer science in chemistry education is still in its infancy in India. Computer s should be made available to graduate and undergraduate students even in the research facilities so they can easily enter and research material, as well as create reports and PowerPoint presenta tions. Additionally can identify structure, geometries, densities of the molecules or compounds. Students studying chemistry must enrol in computer science courses that include apps like Micr osoft Office and the Internet.

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AN ANALYSIS OF E-LEARNING IN MULTIDISCIPLINARY EDUCATION

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ABSTRACT
E-learning provides the thirst of knowledge and offers. Through e-learning, we get rapid information access to specific knowledge. Online learning is helpful at anywhere, anytime, and any age. Compared to a traditional learning system it is more easy and helpful. E-learning means information that is provided through various types of multimedia, internet and many applications. It is an item which can be used interchangeably with other terms i.e. web- based learning etc. E-learning is a completely opposite and a new technology to a traditional learning system to a classroom learning system. It is referred to as online learning, remote learning, virtual learning, mobile or digital learning, distance education. In the past technological advance has proved the change of patterns in different parts of the learning system and it has resulted.

In the current years, researchers have shown more interest in learning style, which is an important factor in the process of learning. In the last few decades, advanced technology has improved the learning conduct and this new movement has changed the attitude of both the teachers and the learning process also. The inauguration of various forms of e-learning viz. Computer assisted learning, combined learning, enormous learning, open courses etc. have come true in most universities in India and abroad. E-learning in learning procedure is to encourage awareness. It is an advanced sector for recognition by meaty to convey educational utilizing educational implements and connections methods.

Keywords: E-learning, Aims of E-learning, Types of E-learning.

INTRODUCTION
A unique educational approach called interdisciplinary education allows students to learn and explore many courses in various fields. Education is the fastest growth and progress of every society. A Multidisciplinary approach to curriculum integration highlights the various perspectives that multiple disciplines bring to a problem or question. Researcher's hope the need for teamwork is emphasized everywhere. A Multidisciplinary education is a method of learning which gives a crucial focal point on various outlook and various disciplines of learning to decorate a topic, idea, or any matter in question. It is the one in which the alike hypothesis is learned by numerous frames of reference in more than one discipline.

The National Education Policy 2020 (NEP 2020) has emphasis on the use of vernacular or jargon as the source of direction till class 5 while endorsing its continuance till class 8 and after. It suggests that all students will learn three languages in school under the plan. NEP 2020 calls for a structure of government aimed at foundational literacy and numeracy by MHRD. In this aim, the states will make ready an execution goal to reach foundational literacy and numeracy in all primary school students upto grade 3 by 2025. The policy allocates for rehabilitation at all levels of cultivation from school to higher education. NEP aims to enlarge the focal point on anneal teacher training, improving the existing exam system, before time childhood care and reconstructing the regulatory framework of education. It is a panoramic policy that highlights universities Multidisciplinary and multiband approaches and education finance by technology.

A learning system based on characterized teaching but with the help of computerized assets is known as E-learning. While instruction is based in or revealed in the classrooms, the utilization of computers and internet casts the extensive elements of e-learning. E-learning is sometimes also known as web-based learning. It is utilized anywhere, at any moment, direction conveys

over the internet or a collective intranet to browser provides learners. E-learning is a to a conventional classrooms learning skill and is frequently mention to as ‘’ online learning ‘’, ‘’remote learning ‘’, ‘’virtual learning’, ‘’mobile learning’’,” digital and distance education.’’ It requires utilization of first and foremost the internet and various technologies involving one or more way transference through open report, closed track, cable broadband lines, fiber optics, satellite, or wireless communication devices or audio or video conferencing. E-learning encircles all online courses, including combining hybrid formats, utilizing canvas, and learning management systems.

RESEARCH METHODOLOGY

Researchers use primary as well as secondary data for this research paper. This paper's major goal is to present several facets of a multidisciplinary approach to e-learning in multidisciplinary education. This study is exclusively based on secondary information gathered from the available materials, including books, journals, articles, magazines, websites, etc. Here, descriptive and analytical techniques are used.

OBJECTIVE

- To study online education in learning systems.
- To study the impact of online education in Multidisciplinary education.
- To study the attentiveness of learners in online learning.

HYPOTHESIS

- It is a web annotation tool that enables public or private annotations of all publicly available digital content on the internet, such as this Press books course resource, Open Access Journal articles, websites, and much more.
- This study demonstrates how using interactive e-learning features boosts undergraduate students' interest for learning

E-Learning in New Education policy 2020:

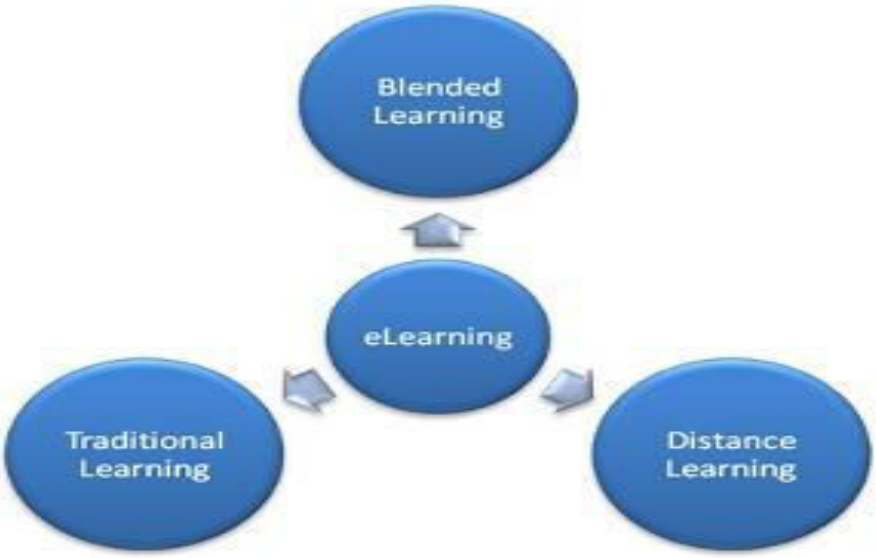
E-learning is one of the advanced sectors for recognition by meaty to convey education utilizing educational implements and connections methods. It is the learning expedited and assisted by information communication technologies (ICT). The wide aim is to grow devices and technologies to advertise e-learning in the country. To increase the character of learning and teaching. Meet the learning manner or necessity of students. Enhance the effectiveness and benefits. Better to the convenience and well-timed elasticity to capture the learners in the learning process.

It encourages active and unconventional learning. Well-organized ways of providing courses as the assets are available from anytime and at any time. Students can interconnect with their equal

from all sides of the world through group discussions and personal conversations. The studying items can be obtained a limitless number of times.

E-learning can also permit learners to check out data that they have inspected and save their time also. Online education authorizes the teachers and students to lay down their own learning step and the added pliability to lay a schedule that can fit like a glove to everyone's schedule. As a result of utilizing an online educational policy permitted for a superior stability in work and studies, so there is no requirement to give anything up. Multiple studies have signified that growing students' motives to learn and upgrade their educational performance and consequence. Therefore, the correlation between e-learning and up gradation of students is moderated by stimulation.

Types of E-Learning:-



- **Nonsynchronous Online Courses.**

With asynchronous learning, you can complete your coursework in a specific amount of time and on your own schedule. Throughout a one- or two-week period, you can access and finish lectures, readings, homework, and other educational resources whenever you like.

- **Synchronous Online Courses.**

Synchronous learning refers to the process whereby you virtually attend a weekly class meeting at the same time as your instructor and students, despite the fact that you are studying from a distance. The class is an unchangeable, strict weekly time commitment.

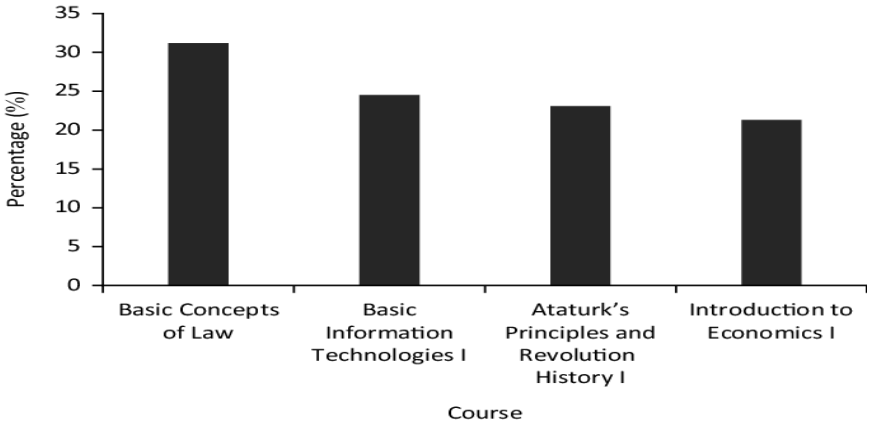
- **Hybrid Learning**

When students learn at least half of the time online and half of the time in traditional classroom settings, this is referred to as hybrid learning (according to this interpretation).

- **Providing Continuity.**

When a school is closed for an extended period of time or a student is absent due to illness, a natural disaster, a tense situation, or bad weather, continuity of learning is implemented as a reaction to ensure that the student can continue on his or her learning path.

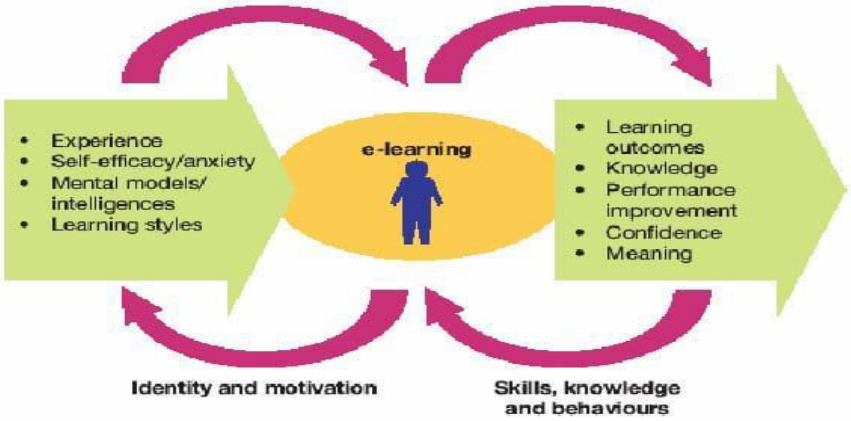
- **Distributing Mater**



- **Fostering Collaboration.**

The bearing of an individual is thus substituted through experiences. This change in bearing or bearing perspective occurs as a consequence of experience. Learning cans consequent from the both substitutes and straight occurrence. This work is recognizing the attribute of the execution of E-learning, which was categorized in three axes: - Organizational, pedagogical and technological. Multiple studies have signified that growing students' motives to learn and upgrade their educational performance and consequence. Therefore, the correlation between e-learning and up gradation of students is moderated by stimulation.

Aims of E-learning:



To increase the standard and quality of learning and teaching. Encounter the learning style or requirements of students. Upgrade the organization and effectiveness. Upgrade user- availability and time pliability to attract the learners in the learning process. The three types of learning include: generating new cognitive skills. Enlarge feelings and emotions to intensify physical skills. Learning aims can also be boards so that they continue to encourage students to learn new extent in any of these three classes.

E-learning acts for conveyance of educational data and learning through digital assets. The whole learning procedure is based on the proposition of certified education, it is provided through an internet interrelation through electronic gadgets. Such as computers, tablets and even smartphones.

This makes it uncomplicated to students or learners to enter their online classes anywhere and anytime.

- E-learning completely regulates your requirements. Online study is planned to assist everyone's requirements.
- Decreased cost.

One of the largest uses of E-learning is its cost efficacy.

- Isolated proposition to many categories.

One of MeitY's focus areas for delivering education through instructional technologies and communication channels is e-learning. It is the learning that is made possible and aided by information and communication technology (ICT). The development of technologies and tools to advance e-learning across the nation is the overarching goal.

Improve the standard of instruction and learning. The needs or learning preferences of the students. Achieve greater efficacy and efficiency. To involve students in the learning process, increase user accessibility and time flexibility-learning is a sort of learning that takes place digitally using electronic media, frequently the internet.

It is a flexible and convenient option for students to learn wherever they are because it can be accessible by the majority of electronic devices, including a computer, laptop, tablet, or smartphone. E-learning materials are available in a variety of formats, including interactive web platforms and apps, software programmers, and digital courses.

Online Courses

Learning Management Systems (LMSs), which frequently offer online courses, allow learning material to be given at a consistent rate and organised into parts and chunks to make it easier for the learner.

To help the learner test and apply their own knowledge, they frequently include interactive materials. Demy and Skill share are two well-known websites that offer online courses.

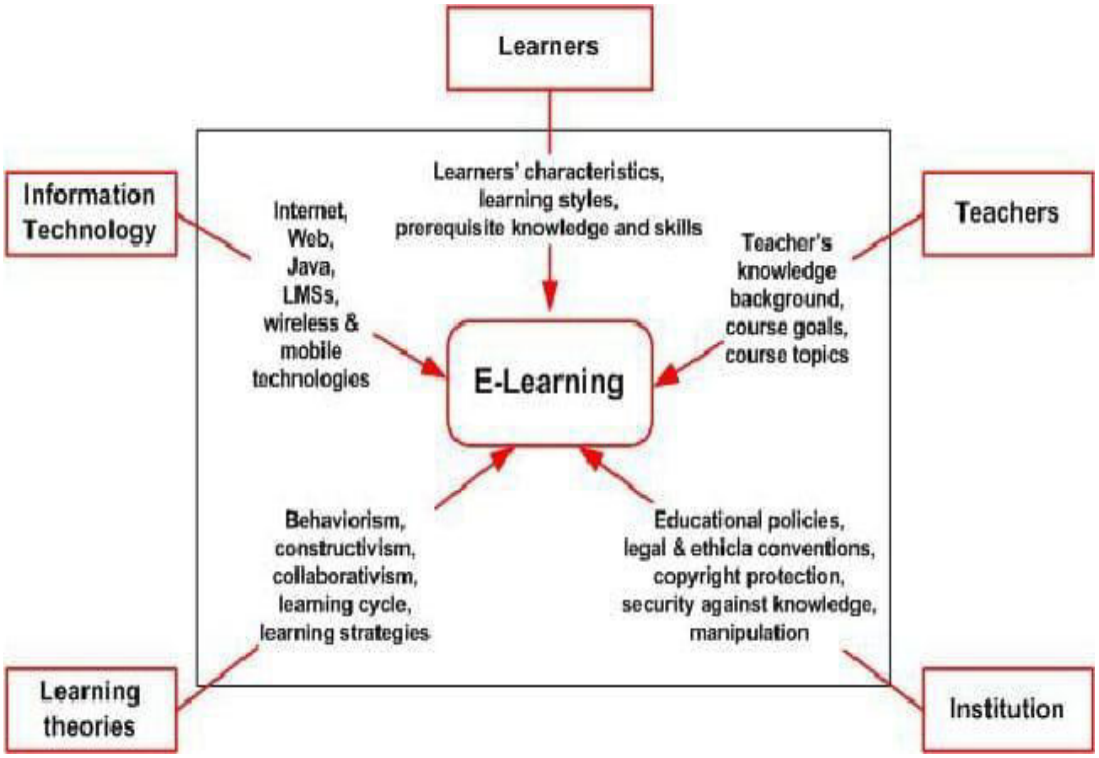
Apps & Software

Many people are learning about the incredible opportunities for self-taught learning through apps they can download directly to their phone. Apps and software are nothing new.

Use Duo lingo to pick up a new language, or Yousician and Urochord to learn a new instrument.

The usage of learning software is also possible offline and online for private learning endeavors as well as for the aforementioned shared learning courses.

E-learning in Education:-



Teachers and students are using e-learning techniques to continue their studies from home because there are so many shuttered schools in the UK right now.

Many schools were major proponents of edtech in the classroom and constructing an intuitive and adaptable learning environment through the use of digital platforms even before these most current crises. Platforms like Google Classroom and Démodé have allowed teachers to produce and share educational content. Online, there are a ton of resources that can be shared for lesson plans and other educational materials.

E-learning has been used by instructors in a variety of ways to carry on their curriculum-based instruction. One significant method is the use of online "classes" or "classrooms" using video communication tools like Zoom. With every student participating from their own home, the teacher is able to plan and deliver classes as usual. Zoom's accessibility from a phone makes it a fantastic tool.

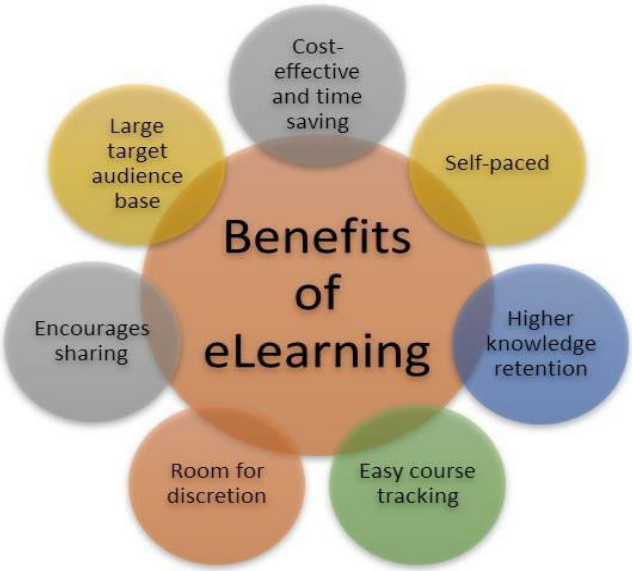
Importance of E-Learning in Education:

E-learning is currently playing a significant role in education by guaranteeing that students can still complete their studies despite the current national crises.

Additionally, e-learning is crucial in the modern classroom because it enables teachers to communicate with parents about their children's development and gives students the opportunity to continue their education outside of the classroom by using applications, online resources, and sharing hubs.

Finally, e-learning brings schools and classrooms a little bit closer to going paperless. While it cannot be predicted that paper books and materials will totally disappear, e-learning tools and resources significantly contribute to reducing paper waste and encouraging schools to be more environmentally friendly.

Benefits of E-Learning:



- **Affordable and Time Saving:**

E-learning eliminates travel expenses, printed materials, and expenses related to maintaining an office or educational institution because it can be accessed from almost anywhere, even your own home.

As a result, online learning not only allows for time savings for all parties, but it also significantly lowers the cost of education for students.

- **Learners Can Study at Anywhere and Anytime:**

Nowadays, learning can be accessed through just about any device, so it is no longer limited to the home or even the classroom.

The ability to continue learning whenever it's convenient for them, including while on the go, is made possible through apps and online learning platforms, allowing students to further their education more quickly.

- **Easy to Track Progress.**

A learner can track and monitor their own progress using most apps and learning management systems (LMS), which helps them stay motivated because they can go back and see how far they've come.

Teachers or tutors can also monitor where their students are in a particular course or subject module and decide when more assistance is required.

Disadvantages of eLearning

• Requires Self-Motivation

E-learning demands self-motivation and self-control to be successful. Because the student has complete control over his or her own development, they will actually get what they put into the learning.

In schools and colleges, e-learning is typically supervised by a teacher, parent, or other adult who can make sure that the kids are committed to the process and achieving the best results. But even then, especially in the case of remote learning, it still necessitates a certain amount of self control from the pupils.

- **Doesn't Provide Practical Training.**

Although practical training may be necessary in some disciplines to ensure competency, e-learning can only supply the theoretical portion of a training activity. This would be an example of blended learning, which enables you to employ online training in addition to conventional in-person instruction.

Misses the Face-To-Face Aspect of Learning.

Face-to-face interaction, which e-learning typically lacks, may be a big incentive for some people. Even if a student has access to a live teacher online, the social component is absent, which may prevent e-learning from being the best option for everyone.

Importance of E-Learning.

ELearning is a crucial chance for many preschoolers and kindergarteners to learn important lessons via online technology. Even the youngest children can benefit from the value-driven notion of online learning. The next generation of learners is already choosing the greatest e-learning tools for children and is autonomously researching new concepts, ideas, and themes. As parents, we can make sure that our child's education is not jeopardized in any way and that we can give them access to the best online learning possible.

Electronic learning, often known as e-learning, is education that is based on contemporary communication tools including the computer and its networks, diverse audio-visual resources, search engines, electronic libraries, and websites. It can be done in a physical classroom setting or remotely. Students can develop and communicate new ideas thanks to online learning. In addition to your formal education, you have the opportunity to advance your skills and knowledge. One of the key benefits of e-learning is that it aids in the development of advanced abilities in both students and teachers.

One of the key benefits of e-learning is that it aids in the development of advanced abilities in both students and teachers. Scalability offered by e-learning makes it easier to deliver training. E-Learning allows you to study whenever, wherever, and however often you like. This cuts down on the amount of time you need to spend learning.

In the field of education, the idea of e-learning is not new. The COVID-19 outbreak, on the other hand, has increased the urgency with which schools must use technology to support learning activities. As the benefits of employing online learning platforms for student instruction greatly exceed the drawbacks, there is a growing desire for schools to offer these options. Using digital resources including software, mobile devices, and the internet to educate or study is known as e-learning.

The model for online learning in education has been very simple: prior to the early 2000s, instruction took place in a classroom with students under the direction of a teacher. Physical presence was given and other forms of learning were at best dubious. After then came the internet, and the rest is history. With e-learning, you may distribute content in a variety of formats, including Word documents, PDFs, presentations, and videos. Users can also conduct webinars (live online classes) and converse with lecturers in chat rooms and message boards.

SUGGESTION

In accordance with the New National Education Policy 2020, schools should use the current eLe arning platforms to build virtual labs so that all students can access real-world, hands-on learning opportunities. Encouragement from real-world rewards will increase learner engagement. Customers might receive a discount, while staff might receive a small incentive like being designated "learner of the month." It's a simple advice, but one that can make a significant difference in how many of your courses you complete.

CONCLUSION

This paper has covered the apparent inadequacies inside the E-learning practice that constitute these flaws. Practitioners can concentrate on improvements and solutions by identifying weaknesses. The need to modernize distance learning has not been fully recognized due to a number of factors, including misunderstandings about how DE and E learning formats relate to one another, vague expectations about the capabilities of E learning, and ad hoc E learning solutions that fall short of the intended learning goals. As a result, the fields and boundaries of e-learning have not been established. Practitioners lack a standard for measuring success, failure, or development when there is such openness. It is up to each student to make their own decisions on these issues. Therefore, it is not unexpected that E-learning has professionals from Different fields have different perspectives on the potential, success, or failure of E learning.

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ROLE OF EMPLOYABILITY SKILLS IN MULTIDISCIPLINARY EDUCATION

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ABSTRACT
Students from diverse backgrounds can develop sound foundation in abilities like communication, teamwork, stress management, inter - personal skills, etc. through studying in a multidisciplinary environment; courses and subjects that require analyzing each other's intricacies. It is vital to have graduates who can provide answers to issues that are intricate and nuanced. This necessitates that graduates acquire a wide range of abilities that go beyond the baseline competencies specific to their fields including the capacity to manage intricate interdependencies, collaborate in cross-disciplinary teams, combine data from various sources, and connect theory and practice .The attainment of these skills will therefore assist in determining the outcomes of complex situations that otherwise wouldn't be resolved by examining a single discipline from a single aspect solely. What makes a person employment ready are these transferrable competencies that go beyond education and experience. All employers value these skills in this age of globalization. This paper represents that how the multidisciplinary education is effects on employability skills.

Keywords: Transferable skills, Multi-disciplinary, Multiculturism, Skill development.

1. INTRODUCTION
Multidisciplinary refers to an approach to a topic or problem that combines or involves a number of academic fields or professional expertise. With the help of numerous methods from multiple academic disciplines, a multidisciplinary approach aims to redefine problems outside of their typical parameters and provide solutions based on a fresh understanding of difficult situations. Multidisciplinary is a term used to describe the combination of two or more professional specialties in order to achieve unified and complementary support roles. In order to solve an issue, students at a high school or university are said to use material from multiple disciplines. This problem is typically centered on a fresh topic for analysis, regardless of how well it matches the traditional viewpoint. Students working on multidisciplinary projects must collaborate with peers, teachers, and experts from a variety of academic and professional backgrounds. Students may find it difficult to coordinate across disciplines when working in teams, especially if they aren't routinely taught how to do so. Therefore, an effort is made to redefine employability skills into the overall curriculum, giving students an edge over the competitive job market.

Today, consider employability skills to be crucial qualities in potential employees, along with subject matter competence. At present, the employment situation seems to be more dynamic and competitive. Employers. The foundations of your career are employability or "soft skills." Organizations invest a significant amount of time and money in teaching staff general and fundamental skills rather than job-specific subjects. The fundamental abilities, character traits, and values that enable one to succeed in any workplace are known as employability skills. Communication, teamwork, conflict resolution, celebrating diversity, and finding a common goal are identified as key determinants of successful multidisciplinary teams. The educational system has a key role to play in developing students' employability skills for the job market as well as improving their knowledge of updated curricula.

2. REVIEW OF LITERATURE

1. **Dr. P. Sivakumar: Multidisciplinary Approach to Enhancing Quality Education for Marginalized Students**: This paper provides a brief description of a multidisciplinary methodology used only to deliver excellent education to underprivileged students. He concluded that a multidisciplinary approach identifies various concerns that marginalized students face due to their multidimensional problems, such as financial backgrounds, mental or physical ailments, etc**.**

2. **Anita Priyadarshini, Deeksha Dave Holistic and Multidisciplinary Education through Open and Distance Learning to Realize the Vision of the National Education Policy-2020:** This paper responds to the existing ODl system and makes recommendations for ODL institutions to advance multidisciplinary and holistic education in accordance with the NEP-2020 vision**.** It showed that universities in general and ODL universities in particular are working harder than ever to expose students to a wide range of subjects and courses in order to ensure that their graduates develop holistically. ODL Universities have been successful in drawing great number of students. Because of their wide range of programs, affordable tuition, and large network, they attract a sizable proportion of students from the underprivileged and marginalized.

3. **Embedding employability and transferable skills in the curriculum: a practical, multidisciplinary approach:** In this study, it was discussed as a new postgraduate (PGT) engineering programme at the University of Bath, where employability skills are integrated using a practical, multidisciplinary approach. Key transferrable abilities were identified with input from pertinent professional organisations, and they were integrated into the curriculum along with content specific to each subject. In a series of practical exercises, students combined and implemented theories and procedures from many fields (linguistics, information, etc.).

4. **Georgina Andrews, Marilyn Russell; Employability Skills Development: Strategy, Evaluation, and Impact:** The purpose of this paper is to analyse how a university has sought to test the effectiveness of strategies to enhance employability skills and the key themes that emerged from this investigation. The paper also draws attention to key issues relating to the enhancement of graduate employability.

5. **Dr. M. Sakthivel Murugan and Dr. S. Ganapathy: A Study of Employers' Perceptions of College Students' Employability Skills Students:** This paper focuses on the employers and HR Managers perception of college student's employability skills which are statistically tested with the help of empirical model by using structural equation model. It aimed at developing and constructing a statistical analysis. As it also concluded, the educational system has a key role to play in developing students' employability skills for the job market as well as improving their knowledge of updated curricula.

6. **Dhadphale, Tejas;Baughman,Jacqulyn Series: E&PDE:** Understanding characteristics of multidisciplinary collaboration using concept maps: The study's objective is to understand what students think about cross-disciplinary collaboration. Students in engineering and design were asked to develop idea maps that highlight key elements of productive cross-disciplinary collaboration. Concepts, hierarchical levels, and cross-links were counted to determine the score of each concept map. To more fully comprehend the fundamental ideas and the nature of the connections between them, content analysis was done.

3. RESEARCH OBJECTIVES

1. To study the level of awareness among the scholars.
2. To study the impact of multidisciplinary education on employability skills.

3. The ability to study has improved as a result of the multidisciplinary education.
4. To study activities conducted in multi-disciplinary education.

4. RESEARCH METHODOLOGY

Descriptive research used for this research. Survey method was used for collecting the data.

4.1 SOURCES OF DATA

i) Primary Data: This is the primary data collected through the questionnaire.

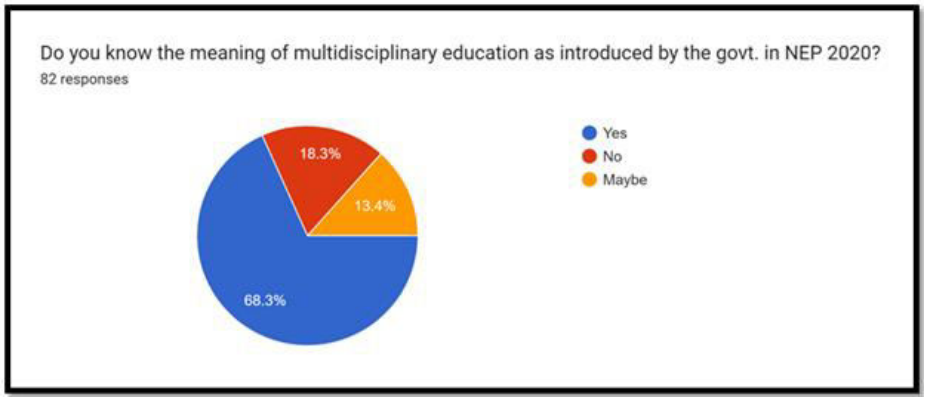
ii) Secondary Data: Secondary data collected through websites and journals

4.2 Sampling Size: Randomly, 82 students from graduation level were selected as a sample from different streams.

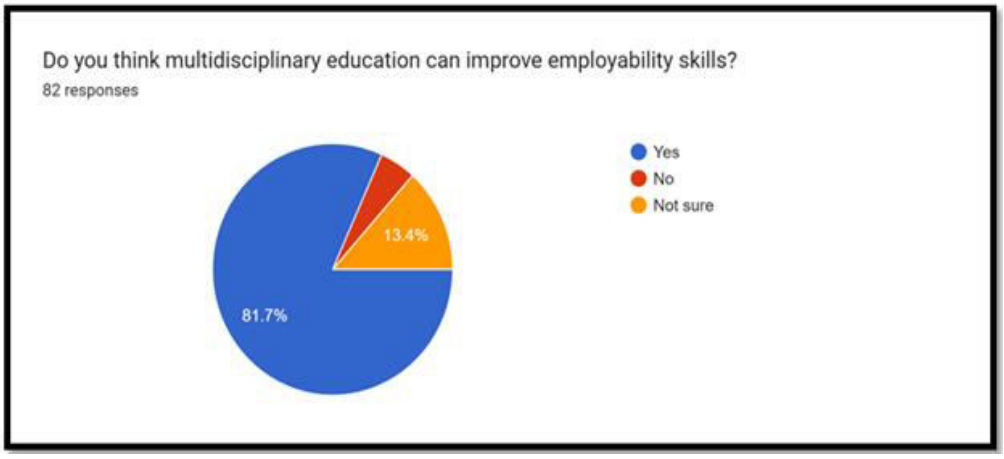
4.3 Limitations of Study

1. The conclusion and finding were based on the data collected by the researchers.
2. The study is restricted to small data sizes.
3. The responses collected involve individual preferences.

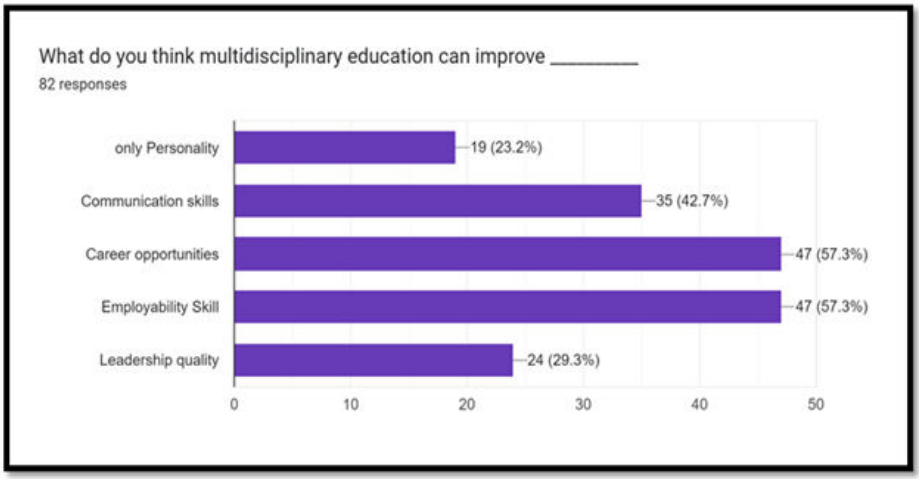
5. Data Analysis and Interruption:



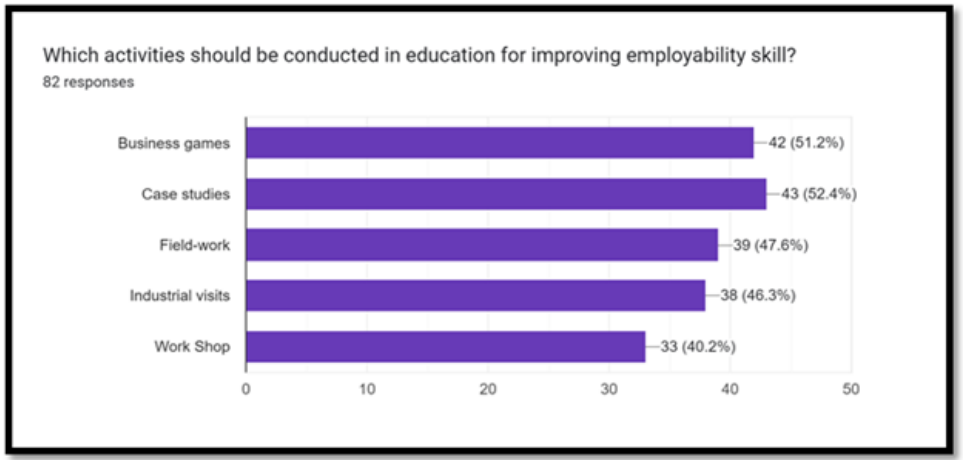
68.3% know about multidisciplinary education, while 18.3% of respondents don't know about this policy, and 13.4% of participants have a little bit of information about multidisciplinary education.



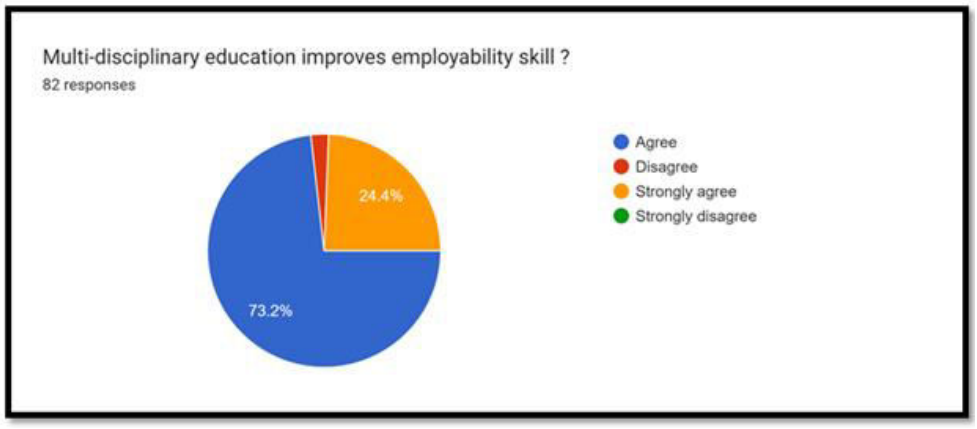
81.7% think that multidisciplinary education can improve employability skills. 13.4 percent are not sure about skill development.



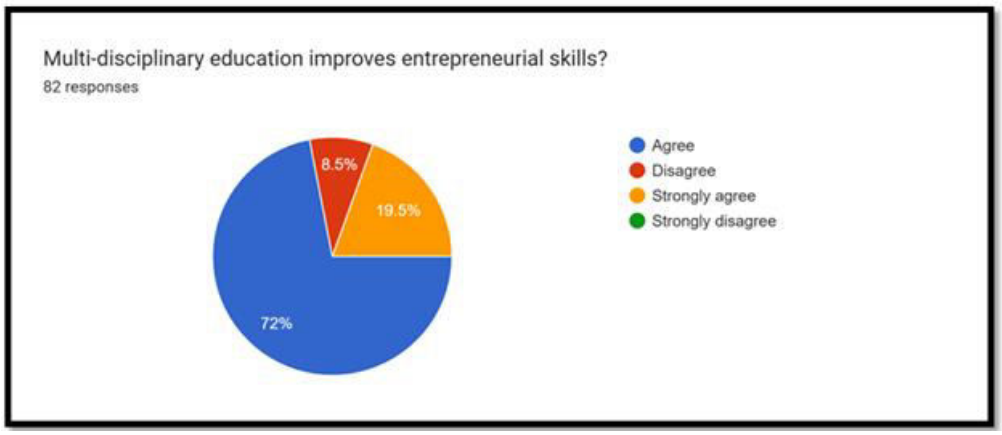
57.3% of participants think that multidisciplinary skills can improve with the help of career opportunities and employability skills. Communication skills receive 42.7% of the vote, leadership qualities receive 29.3%, and personality receives 23.2%.



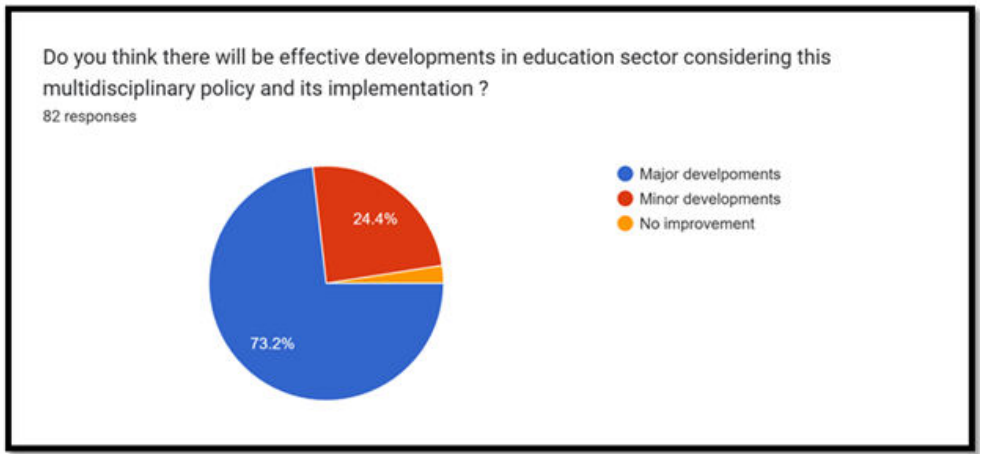
52.4% for case study, 51.2% for Business games, 47.6% Field work, 46.3% industrial visits, 40.2% for workshop. Maximum priority to case study and business games was provided.



73.2 percent agree and 24.4 percent strongly agree that multidisciplinary education improves employability skills.



72% concur, 8.5% disagree, 19.5% strongly concur, and none strongly disagree.



73.2% voted for major development and 24.4% voted for minor development, and multidisciplinary education will create effective development in the education sector.

6. FINDINGS

1. Almost 97 percent of the participants agreed that multidisciplinary education improved a person's employability skills, and one quarter of them strongly agreed.
2. More than 70% of the participants expect considerable positive developments due to the introduction of a multidisciplinary education policy. Whereas 25% believe there will be minor changes.
3. The majority of the participants agreed that case studies and business games will greatly contribute to the improvement of employability skills among the given options of fieldwork, workshops, and industrial visits.
4. Among the other factors of leadership, communication, and only personality, survey participants agreed on both scenarios that multidisciplinary education can enhance career opportunities as well as employability skills.

7. CONCLUSION

It can be concluded that multidisciplinary education is necessary for the overall development of people and the economy of the country and that it is a technique for integrating coursework that aids in bringing together the many viewpoints of several disciplines to emphasize a topic, issue, or theme. Multiple fields may be studied under one topic in such a curriculum. The 21st century

has seen a steady rise in the prominence of multidisciplinary education as a result of the current hypercompetitive global environment.

With the help of the above pie charts, we can see that the majority of people are aware and encourage an interdisciplinary system of education, which increases our hope for a radical change. The knowledge a student has about a certain subject is closely related to their employability. The majority of firms today have diverse job descriptions, so simply increasing one's knowledge in one area won't cut it. Multidisciplinary education can help with this. The development of the nation and the employability of each individual would be greatly aided by teaching pupils a broad and in-depth set of employability skills that are in demand. Small-scale developments on the same will undoubtedly inspire large changes and the implementation of a truly integrative multidisciplinary revolution in the field.

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A ROLE OF COMPUTER BASED EDUCATION IN NEW EDUCATION POLICY

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ABSTRACT

Computer-based learning (CBL) is the term used for any sort of learning with the help of computers. Computer-based learning is also known as computer-aided instruction. Computer-based learning has many advantages, including the benefit of users learning at their own speed and also learning without the need for a trainer to be physically present. Computer-based learning makes use of the interactive segments of the computer applications and software and the ability to present any type of media to the users.

It can also be combined with traditional teaching methods to enhance the overall educational and training experience. As far as schools/colleges are concerned, computer-based learning could help in teaching students in a more effective and profound manner. Individual courses can be imparted in a cost-effective manner to students.

There are many advantages linked with computer-based learning. It offers more learning opportunities for people from disadvantaged surroundings. Students can learn at a pace comfortable for them, unlike in a traditional classroom. Students need to spend only the required time to learn the subject in the case of computer-based learning, and it is also available all the time. Computer-based learning is cost friendly in many ways, as it cuts down travel time. The learning also offers safety and flexibility as well as helps learners to analyse their progress. Another big advantage is in the reduction of overall training time.

Keywords: Information Technology, Computer Based Education, New Education Policy, Benefit and Challenges.

INTRODUCTION

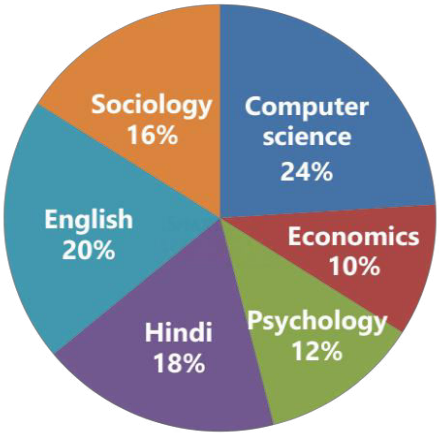
New Education Policy:

K. Kasturirangan is the chairperson of NEP 2020. It is a comprehensive policy issued by the Indian Government on 29th July, 2020. It replaces the previous national policy on education, 1986. The policy is a structure for elementary education to university education as well as professional training in both rural and urban India. The policy targets to transform the Indian education system by 2030. Soon after release of the policy, the cabinet clarified that no one will be forced to study any particular language and that the channel of instruction will not be shifted to any regional language from English. The language policy in NEP is broad and advisory in

nature and decides the implementation on up to the states, schools and institutions. 28 languages are used in learning and teaching in grades.

Provision: The new education policy 2020 approves numerous variations in Indian education policy. It targets to enlarge the state outlay on education from around 3% to 6% of the GDP as soon as possible.

Multi-Disciplinary Education: Multi-disciplinary education is an independent educational strategy that permits students to learn and search various courses from various fields. Multidisciplinary education in a unique educational viewpoint that admits the student to learn and search distinct subjects or modules from different disciplines. Multi-disciplinary enables experimenters to cross boundaries between disciplines and increase unique insights into their subject. This can help new, creative solutions to particular solutions. Multi-disciplinary is also known as interdisciplinary or cross –disciplinary education. The key determinants of successful multidisciplinary teams were identified celebrating variety, finding a common aim, communication, conflict resolution and teamwork.



Computer Based Education:

Computer based education learning is the concept for any sort of learning with the assistance of computers. Computer based learning makes use of the collective elements of the computer software and application and the ability to present any type of media to the users. Computers can be used for E-learning and research. Students can find useful data about their projects and homework. Computer Based Education can be the educator of new material. In Computer Based Learning, the computer is utilized for instructional motivation although the computer software and hardware and input devices are key elements of the educational circumstances.

Computer Based Education helps individuals in education using various representations for a particular educational motive. Common creative awareness of Computer Based Learning for better teaching is reconstruction, hypertext and microworlds.

RESEARCH METHODOLOGY

Researchers used secondary data for research study. Academic papers, reviews, internet web browser and academic publications are secondary sources, from which information.is collected. Computers have a progressively leading title role in modern schools. Secondary research summaries, interprets or describes primary materials. This paper presents computer based learning, logical, Educational and interactive attributes. A secondary source offers analysis or discussion of an original source.

OBJECTIVE

1. To formalize the learning methods and techniques in an innovative way.

2. To provide students a precise understanding of computer-based learning.

3. To evolve children into responsible citizens.

HYPOTHESIS

1) Provide more effective and useful teaching techniques for a variety of educational tasks.
2) Support instructional resources using computers.
3) Using communication and information technology to deliver education.
4) Increase public knowledge of the benefits of pursuing innovative technological and advanced educational research and development.

"Computer Based Education in NEP 2020".

As per New Education Policy 2020 "Computer based education" is an autonomous body. The National Educational Technology Forum (NETF) is going to be generated to deliver a plan of action for the free interchange of ideas on the utilization of technology to support learning, evaluation, organization, management and so on, both for better education and college. New Education Policy 2020 promotes the expansion of existing e-learning platform to deliver teachers with a rich set of usable tools to monitor their student's progress. The perspective of New Education Policy 2020 is "Use of Technology and Combination" in order to give road map to the students to make India an automated and empowered society and learning economy around the globe.

Purpose:

1) Computer based learning is time saving in so many ways, minimizes travel time and also the same application can be used to instruct new student.
2) The learning also proposes safety and springy as well as helps student to follow their progress.

Example: -

Webinar, Peer to peer E-learning, VR learning: - Virtual Reality Training (In this learning you will learn the basics of 3D graphics, Video Training, Podcasts, Mobile Training.

Uses of Computer in Education:

1) Easy to maintain the learning record.
2) Quick Access to Education.
3) Easy for Distance Learning.
4) Innovative Technology in Learning.

5) Online Library.

6) Online Videos on different Subjects.

7) Flexibility to access study material anytime.

The Needs of Computer Based Education:
Computers are employed in many different industries, including commerce, pharmacy, music, education, engineering, defence, transportation, and cookery because they make some activities easier, deliver information more quickly, and speed up the process. Understanding the basics of computers and then using them in practice are essential to computer education. Students can get information, communicate, and carry out other crucial duties via the Internet. When using Computer Based Education, students can move through the learning objectives at their own pace while proving that they understand the material. It allows them to show what they know as soon as they know it.

Benefits of Computer Based Education:

1) **Rapid Processing of Data:** - We can search information easily just by one click.

2) **Parents can know their Child's Progress:** - The computer has helped guardians to know every minute progress of their child by browsing learning apps.

3) **Correspondence in Communication: -** The main benefit of CBL is the quality of learning and teaching procedure and interaction between tutor and student. Computers transform the way of study making it smoother and faster.

4) **Stores Large and Structured Information: -** Teachers and students can download and reserve a lot of educational information, books, question paper, lectures, and notes and so on on the computer.

5) **Audio-Video Guides in Learning Process:-** Greater introduction of data through application software like Microsoft PowerPoint to lead in making impressive presentations for notes and lectures.

CHALLENGES OF COMPUTER BASED EDUCATION

1) Technical Problems: -
For online learning courses or classes requiring network access, technical issues can cause major problems. Technical issues may break the continuity while delivering the course.

2) Need of Proper Training: -
Computer based education cannot be initiated without proper training or without having access to specific tools or software. To up-skill the students, teachers or trainers must be well trained with the technology.

3) Spelling and Handwriting Skills: -
Most computer word processing programs include a spelling and grammar check, and students might rely too heavily on the computer to correct spelling and grammatical errors. When students replace paper and pen with a computer for education, handwriting skills may suffer. Adult learners benefit from increased brain activity when writing new information by hand, particularly in subjects such as math and chemistry.

4) Cheating: -
Students are able to access huge amounts of information via computers and may present that information as their own. Using computers to cheat is a widespread problem in universities and colleges. Pirating may be difficult for universities to prove or identify because of the broad scope of the Internet and difficulty of finding all possible sources of information.

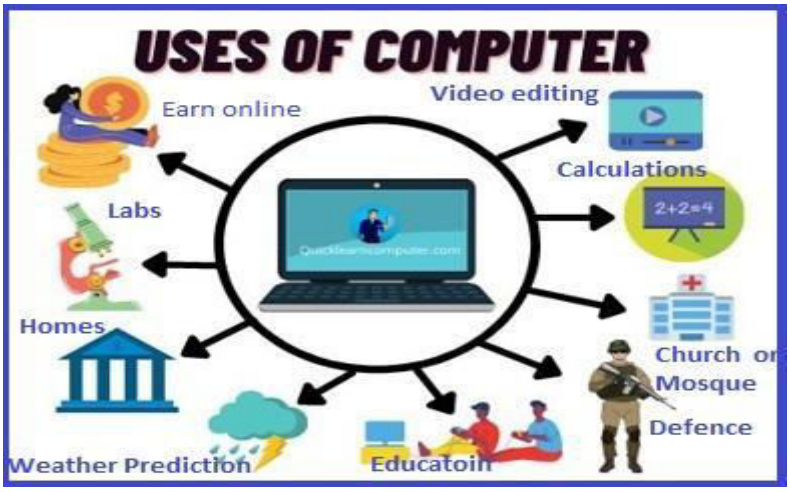
5) Financial Problems: -

Low-income college students are less likely to have easy access to a computer and may not have learned basic computer skills that other students learned at a young age. This puts them at a disadvantage when college classes require heavy computer usage. Financial problems may prohibit some students from owning a computer, placing them at a disadvantage.

6) Cause Distraction to Students: -

Smartphones have a bad influence in classrooms and that is why schools have to face strong issues for banning them and because of students' involvement in smartphones 42% of the time in social media and other engagements.

Importance of Computer Based Education:



- Computer Based Education is currently playing a big part in education by ensuring that students can still finish their degrees despite the current national challenges.
- The use of applications, online resources, and sharing hubs by students allows them to continue their education outside of the classroom, which is another reason why e-learning is essential in the modern classroom. It also enables teachers to communicate with parents about their children's development.
- Lastly, online learning moves educational institutions and classrooms a little bit closer to becoming paperless. While it is impossible to forecast when paper books and materials will completely vanish, e-learning resources and technologies make a substantial contribution to cutting down on paper waste and promoting greener practices in schools.
- Computer Based Education or eLearning is the practice of delivering education and training utilizing digital resources. ELearning is offered utilizing online electronic devices like computers, tablets, and even mobile phones, despite the fact that it is based on institutionalized learning. E-learning is a method of instruction that can take place in or out of a classroom, but its mainstay is the use of computers and the Internet.
- The delivery of education to several users at the same or various periods is known as e-learning, which may also be described as a network-enabled transfer of information and skills. In the past, it wasn't fully embraced because it was thought that this method lacked the human factor necessary for learning.

Online Learning Apps:

The goal of educational learning applications is to make them fun and interesting for students. A learning app's benefits include knowledge augmentation, personalized learning experiences,

greater engagement, access to online study material, ease of communication, and, most importantly, remote access.

Education apps assist students in critically evaluating what they have learned and the sources of it, sparking their curiosity to learn more but doing it methodically so that they are aware of where, when, and what to look into. Students learn more realistically and less conceptually thanks to the total process.

Computer based education encourages independent and active learning. It is an effective method of teaching because students can access the materials whenever they choose. By participating in group discussions and one-on-one chats, students can communicate with classmates from all over the world. You can access the study materials as often as you like.

Following are some advantages of learning apps:

- Effective at achieving positive results
- Learning is not confined by time or space.
- Fairer since more individuals can learn thanks to it
- supports unique learning needs and styles
- Self-paced, economical, and productive
- Simple to change but constant
- constantly evolving
- being able to use analytics
- environmental sensitivity
- integrating resilience into the educational system ensuring that disadvantaged populations complete their education
- encourages cooperation A potential remedy for the teacher shortage

Examples of Online Education through learning app-

Byju's:

Byju's (stylized as BYJU'S) is an Indian multinational educational technology company, headquartered in Bangalore, Karnataka, India. It was founded in 2011 by Byju Raveendran and Divya Gokulnath. It was launched in August 2015, offering educational content for students from classes 4 to 12 and in 2019 an early learning program has started for classes 1 to 3.

Byju's is an education tutoring app that runs on a freemium model, with free access to content limited for 15 days after the registration. Academic subjects and concepts are explained with 12–20-minute digital animation videos and through which students learn in a self-paced mode. Byju's is an Ed-tech mobile learning application designed by one of India's best teachers. The content of Byju's app covers almost every subject and enables students to learn concepts using visualization and smart tricks. Having more than 1000+ hours of video content and much more.

SWAYAM:

SWAYAM (Study Webs of Active-Learning for Young Aspiring Minds) MOOC Platform was developed indigenously by AICTE in 2016 to facilitate hosting of online courses which could be accessed by anyone, anywhere at any time free of cost to achieve three cardinal principles of Education Policy viz. Anuradha Kapoor is the founder of SWAYAM.

Courses delivered through SWAYAM are available free of cost to the learners, however learners wanting a SWAYAM certificate should register for the final proctored exams that come at a fee and attend in-person at designated centers on specified dates. SWAYAM provides one integrated platform and a portal for online courses, using information and communication technology, covering learners from Schooling, class 9 to 12; Under Graduates & Post Graduates, in all subjects.

SUGGESTIONS

- To ensure that all students have access to practical, hands-on learning experiences, schools should create virtual labs using the existing eLearning platforms in compliance with the New National Education Policy 2020.
- Learner engagement will rise when they receive encouragement from real-world rewards. Customers might get a discount, whereas employees might get a little reward like being named "learner of the month.

"This straightforward tip has a big impact on how many of your courses you actually finish.

CONCLUSION

These problems in the E-learning technique have been discussed in this essay along with their apparent deficiencies. By recognizing their flaws, practitioners can focus on improvements and solutions. The need to modernize distance learning has not been fully acknowledged for a number of reasons, including misunderstandings about how DE and E learning formats relate to one another, hazy expectations about the capabilities of E learning, and E learning solutions that fall short of the intended learning goals. Therefore, the E-fields' learning and boundaries are yet undefined. When there is this level of transparency, practitioners lack a benchmark by which to judge their progress. . So, it comes as no surprise that Each pupil must decide for himself what to do in this situation

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NATIONAL EDUCATION POLICY-2020 AND VALUE OF THE VIRTUAL LIBRARIES

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ABSTRACT

On the path of a fast-paced way of living, there is constant demand for access to any type of virtual information at our fingertips. The way we want to access information and read content is rapidly changing.

Books have a long history in the education system, and as computers are becoming more versatile, the books are being incorporated with computers for easy access to information available over the internet. This incorporation of books and computers gave way to a new way to access information and books, which is called the E-library. E-library is a centralized collection of digital items like text, graphics, audio, and video, with innovative ways of reordering, storing, and retrieving the stored data.

The research is based on the analysis of people of different ages and educational qualifications and their points of view about the modernization of the library and accepting the new ways of learning.

As we are stepping into modern education policy our primary aim of education is to impart specialized and advanced knowledge to students and enable them to acquire various skills for all round social progress and enrichment of human life and e-library is going to play an avital role in archiving these goals.

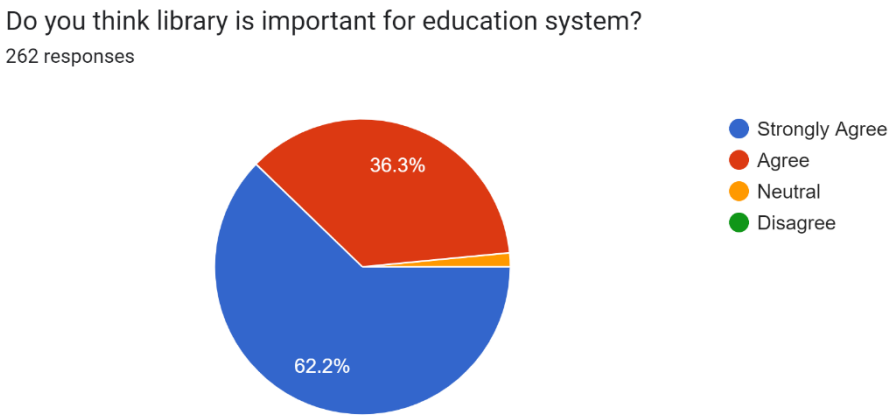
Keywords: Modernisation Library, E-library, Departing from old techniques.

I. INTRODUCTION

For many years the library has been a backbone of the education system and has always been a pioneer for providing the most reliable content to the people. Library is a great platform for encouraging and promoting the process of enlightening ourselves with knowledge. It is a place where we can get our hands on a wide ranging and great educational material which helps in the improvement of social skills and academic skills.

E-library can be defined as a library on our fingertips and an information superhighway which is not restricted to physical means.

There is a free flow of ideas, information, and facts that can be accessed by anyone, anywhere, at any time. It is a digital locker that stores every bit of knowledge and preserves it for future generations.



From the above analysis we can clearly derive that the people still believe in libraries for gaining knowledge and still rely on libraries for information on the specific topic and for improvement of the basic skills which are required in day-to-day activity.

Age Wise Response Analysis

Age Group	Do you think library is important for education system?	Total response	% Of Response
Up to 10yrs	Agree	2	67%
	Strongly Agree	1	33%
Up to 10yrs Total		3	100%
11 yrs. to 21 yrs.	Agree	65	35%
	Neutral	3	2%
	Strongly Agree	119	64%
11 yrs. to 21 yrs. Total		187	100%
22 yrs. to 35 yrs.	Agree	25	44%
	Strongly Agree	32	56%
22 yrs. to 35 yrs. Total		57	100%
35 and above	Agree	4	27%
	Neutral	1	7%
	Strongly Agree	10	67%
35 and Above Total		15	100%

Table.1

As per the analysis of the age-wise response of people (Table.1), the age group is divided into four age groups (up to 10 years, 11–21 years, 22–35 years, and 36 and above).

Education Level Response Analysis-

Education	Do you think library is important for education system?	Total Response	% Of Response
School	Agree	6	55%
	Neutral	1	9%
	Strongly Agree	4	36%
School Total		**11**	100%

Graduation	Agree	77	35%
	Neutral	3	1%
	Strongly Agree	137	63%
Graduation Total		**217**	100%
Post-Graduation	Agree	12	35%
	Strongly Agree	22	65%
Post-Graduation Total		**34**	100%
Grand Total		**262**	

Table.2

For the further analysis of the survey, we have divided the data on the basis of their educational qualification (Table 2), which is divided into three different segments (school, graduation, and post-graduation).

with the reference of the above two tables (Table.1, Table.2), we can derive the data that the age group above 11 years, around 62% of the students, strongly agree that the library is an important pillar of our educational system as they start to prepare for various competitive exams and they find it useful to use the library on a daily or weekly basis.

Further, based on (Table.2) 64% of the people at graduation and post-graduation level strongly agree that for their self-study and for preparation of Govt and Competitive exams, this kind of library is very useful and important.

II. RESEARCH METHODOLOGY

Primary Research

This is a survey-based research methodology. The survey is based on the understanding that we are still used to and stuck with the old ways of educating ourselves by visiting physical libraries. As time changes everything, as humans, need to evolve and change our thought processes by accepting the new ways of educating students without all the problems faced by traditional ways of education, and this survey is the first step in understanding the need and requirement of such surveys that are helpful in the development of the nation.

Secondary Research

The secondary research is based on the articles, blogs, and research paper, which signifies the importance of e-books, how they are useful in the day-to-day lives of people, and why people should start accepting the new ways to study and gain knowledge. There is also a comparison between physical library and e-library at every stage.

III. OBJECTIVES OF RESEARCH-

1. To examine the psychology of different age groups towards physical libraries and e-libraries.
2. To determine that e-library is one of the important pillars in New Education Policy.

IV. HYPOTHESES-

1. E- Library making way for the new technology.
2. Round the clock availability.
3. Reaching out millions at once.

E library frees us from the shackles of old ways of learning it fast easy and new of learning without any hassle it enables us with many options to read and without going through extensive physical labour every bit of information I stored at your fingertips without any restrictions it is also needed to preserve some old and important document that needed saving.

It is available 24-7. There is no specific timing to it, and it also makes the life of a reader simpler and easier with the help of the simple search option. The e-library promotes advancement and helps us match with the rest of the world. It is a much-needed update to match with other fellow countries and to stand beside them.

E library also provides freedom to many for example person who is working part time can access book any time and person who is busy in job can read and gain knowledge anytime he or she need they are not bounded by anything e library also gives freedom to many girls as they want to study but because of old thinking, thinking they not allowed to study and library gives them power and freedom that they desire and the deserve.

V. DATA ANALYSIS AND INTERPRETATION

- **Preference of Library-**

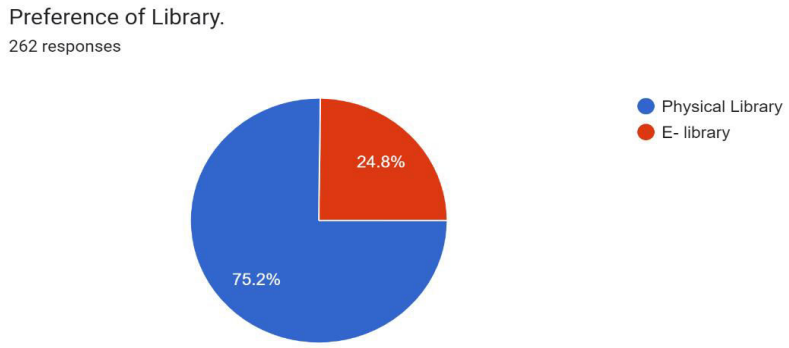


Fig. 1

The above two analysis (Fig.1) tells us that the people are still inclined towards the use of physical libraries because there is no proper guidance and exposure to the people about how to access and use an e-library.

As there are constant advancements in technology, there is a need for people to accept the new ways of learning through the internet and take part in the notion of "digitizing" the nation.

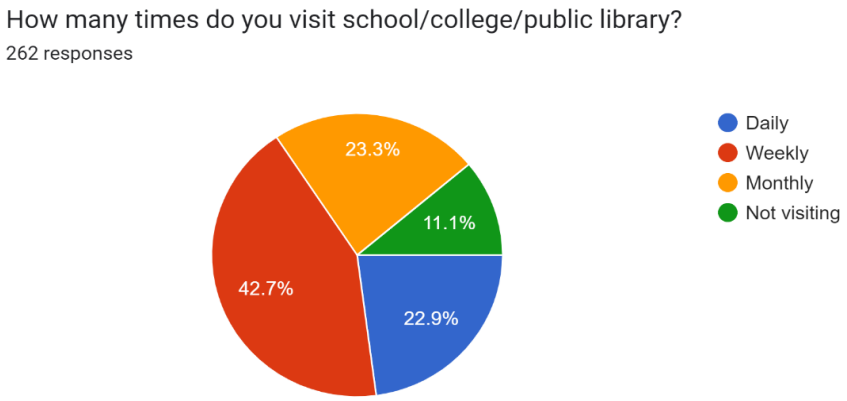


Fig.2

The information we can derive from the above figures (Fig. 2) is the frequency of people visiting libraries. As from the above-mentioned data, we can deduce that almost 66% of people visit libraries on a daily and weekly basis, and we just need to show them a new path or way to gain knowledge through e-books.

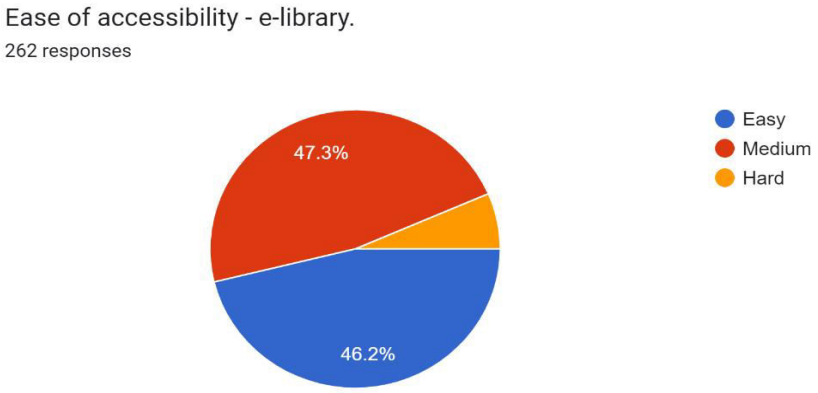


Fig.3

In the above analysis (Fig. 3), it is clear how many people have access to an e-library, and the data tells us that people can fairly access the e-library, which is a great positive sign for the new education policy and the implementation of new teaching methods and standards.

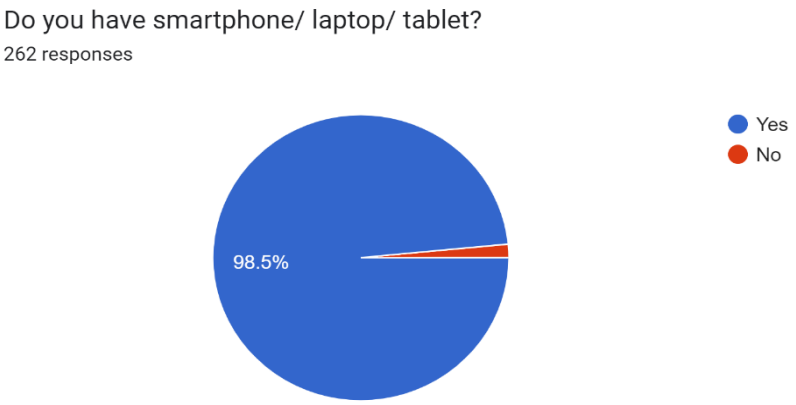


Fig.4

The implementation of the concept of e-library has been possible because of advances in technology and affordable smartphones which can be determined by the above figure (Fig.4) maximum people are having smartphone/laptop/tablet to gain access to e-library and can adapt new teaching ways.

- **CONTEXTUALIZATION OF LIBRARY-**

I. UP TO THE MINUTE

In the rapidly changing modern era, there are constant new discoveries and inventions that are being published and read throughout the world, and physical libraries are falling behind in keeping themselves updated. This is where e-library services are as important as ever. E-library can constantly update itself with the new information and facts which are being proven or examined by anyone around the world and the updating cost of these e-library is very low and efficient and requires very less labour or work force to update library. As compared to physical libraries the e-library can increase its size much more effectively as compared to the physical library which is confined between and couldn't increase its on demand of the new age.

Many publishers now a days like the publish their content online in form of an article or blog and many a times which is done in collaboration with e-library and the publisher can charge a minimal amount to read its article and reach out millions at once without the cost of printing and distribution and still resulting in very less people reading the published material as compared to the readers of e-library.

II. STREAMLINING THE INFORMATION

In the ocean of never-ending knowledge, people seek the right information among millions of articles, blogs, and books, where the e-library acts as a required vessel to travel through this deep and vast ocean of knowledge

E-library streamlines the information with the help of specific filters, sections and bifurcation of the information relevant to the topics. The process of finding the right information on a e-library is very efficient in relation of time. The consolidation of the information on a e-library is very easy all because of its user-friendly interface which is very interactive whereas on the other hand the physical library is very time consuming in finding the right information at right time because the people have to go through a lot of books and various sections of library physically which eats up the lot of valuable time and resources.

E-library enables user to take down the notes and points related to the topic easily and efficiently and can be refer any time as per the wish of the user and can be shared to others in various form like pdf, word file or a presentation; whereas in physical library the person has to physically jot down the points and notes relevant to the topic and the sharing of the information becomes hard.

III. MUCH NEEDED UPDATE

We need to preserve, protect, and conserve our knowledge because that is who we are, and it represents our culture and defines what being human means. It should not only preserve good things but also the darker side of human reality, as it is a learning point for future generations to not repeat the same mistakes done by us in the past, and this can easily be done by storing the information in the form of a CD, DVD, PDF, online article, or on a hard drive.

E-library can be a saviour for the people who are doing jobs with their studies and for the students who are attending night school or night college, and e-library enables these students to access libraries at any time of the day to clear their doubts and study whenever they want. Whereas in a physical library, we are bound to the timing of the library and have to function according to it.

IV. IT GIVES HOPE

E-library is providing some new special features like "text-to-speech," which enables users to hear what's written on the screen and make it clearer, and with the help of this function, we can learn to pronounce new and hard words easily and help us to improve our both spoken and written English, or any language for that matter. This feature is also helpful for specially abled people who can read or write well, and this function helps them to gain knowledge.

E-library also provides audiobooks, which are books transformed into audio files that can be listened to at any point in time and are also helpful for understanding the basic concept of the book. You can also get a quick summary of the books available on E-library.

E-library also provides a service of video-based learning which enables user to access the videos related to their topic easily and gather accurate data without any hassle and these videos are also helpful for people who are staying far from college and can't attend college on a regular basis so they can learn specific topics through the videos provided on the topic.

An e-library card or login ID is a way to protect your privacy and stores all the books you have referred to and are going to read together without any fear of losing your data. It also helps you keep your notes to yourself and can be accessed by you from anywhere in the world.

We can interact with the people all around the world by creating forums having common interests where we can discuss and share our knowledge and gain knowledge from them. This would also social skills. The e-library card reduces the hassle of carrying and handling the physical library card.

E-library provides a section of frequently asked questions (FAQs) where we can post our questions and doubts and ask for the help of experts to clarify them and guide us.

VI. CONCLUSION

E-library is a necessary tool which we need in today's world to help us in competitive and ever changing work and education environment everyone should get used to it as it is the future of library and education it has many advantages that makes it important as it is accessible to everyone at any time, at anyplace and more importantly gives the necessary freedom that we all want freedom to study without any restrictions that are usually there in traditional library it is a saviour for part time worker and employee those who crave for knowledge they need that knowledge to grow and be successful e-library fulfils that demand with ease and without any hassle of traditional library it also gives freedom to girls, women those who want to gain knowledge but due to some circumstances they cannot attain their desired knowledge it helps them in every way possible and empowers them to go and make their dream a reality. E-library has been a life-changing invention for specially abled persons as they can overcome their personal problems and get what they want. All in all, the E-library has been a much needed and valuable invention that will touch each and every life possible, and it is a vital pillar in the success of the New Education Policy of India, a country that is going through an important phase of digitization..

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A SURVEY ON COMPARISON OF HOLISTIC & MULTIDISCIPLINARY EDUCATION

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ABSTRACT
Education is an essential component of human growth and has a big impact on how people and society will evolve in the future. Holistic and Multidisciplinary education are two of the most popular alternative methods of education that have gained popularity in recent years. This Paper compares the two educational approaches, analysing their definitions, objectives, benefits, and shortcomings in order to shed light on both their advantages and disadvantages. The findings demonstrate that both holistic and Multidisciplinary education has certain benefits and drawbacks, and that the optimum strategy for any individual or society relies on their requirements.

To explore and comparing the role of holistic and multidisciplinary education in career planning.

Keyword: Holistic education, Multidisciplinary education, career planning, benefits.

1. INTRODUCTION
Education is a continuous process that is essential to the growth of both individuals and society. The traditional educational model places little emphasis on a student's total growth, instead concentrating on the narrow and specialised dissemination of knowledge and skills. However, interest in alternative educational strategies has grown recently, with holistic and Multidisciplinary education emerging as two of the most well-known.

A pedagogical strategy known as holistic education seeks to advance students' overall development while taking into account their physical, emotional, intellectual, and spiritual needs. The method emphasises the integration of numerous topics and activities as well as the value of individual development and self-awareness.

Multidisciplinary education aims to provide students with a more complete and in-depth understanding of the subject matter and its applications in the real world.

2. REVIEW OF LITERATURE
2.1 Robert C. Wicklein and John W. Schell Case Studies of Multidisciplinary Approaches to Integrating Mathematics, Science and Technology Education

2.2 New kind of studies: Multidisciplinary school within the university Ewa Augustyniak

2.3 Multidisciplinary and Holistic Approach in Higher Education with Reference to NEP: 2020, Prof. Milind Gautam Gurchal1 and Prof. Priti Yamdagini2

3. OBJECTIVE
1. To study the awareness among the students about the Multidisciplinary Education.
2. To study the usefulness of Holistic Education in 21st century.
3. To study the usefulness of Multidisciplinary Education in 21st century.
4. To study the preference of student to side/ stream in Multidisciplinary Education.
5. To study the effect of Multidisciplinary Education on career planning.

4. RESEARCH METHODOLOGY:

4.1 Source of Data:

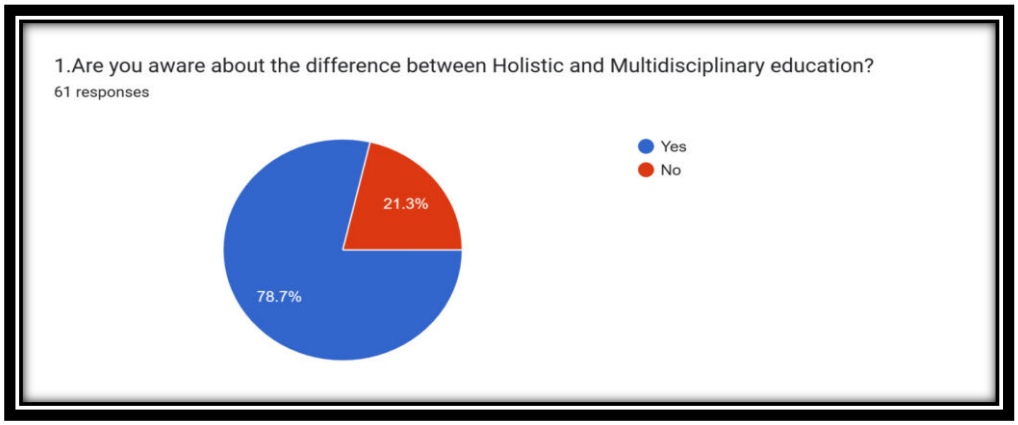
A. Primary Data
Primary Data Collected through questionnaire. Questionnaire sent to graduation level students.

B. Secondary Data
Secondary Data collected through websites, articles, journals, etc'

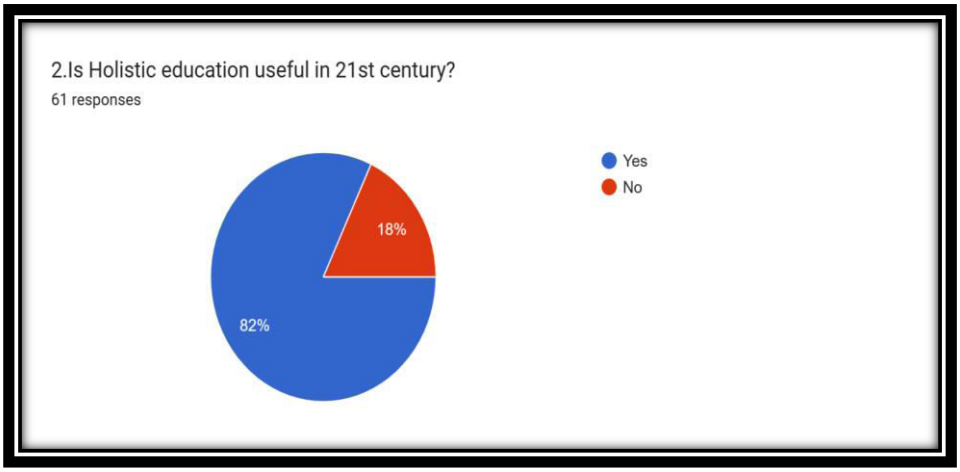
4.2 Sampling Size:
Randomly 61 under graduate students selected as a sample.

4.3 Limitation of Study:
The study of data limited with graduate students.

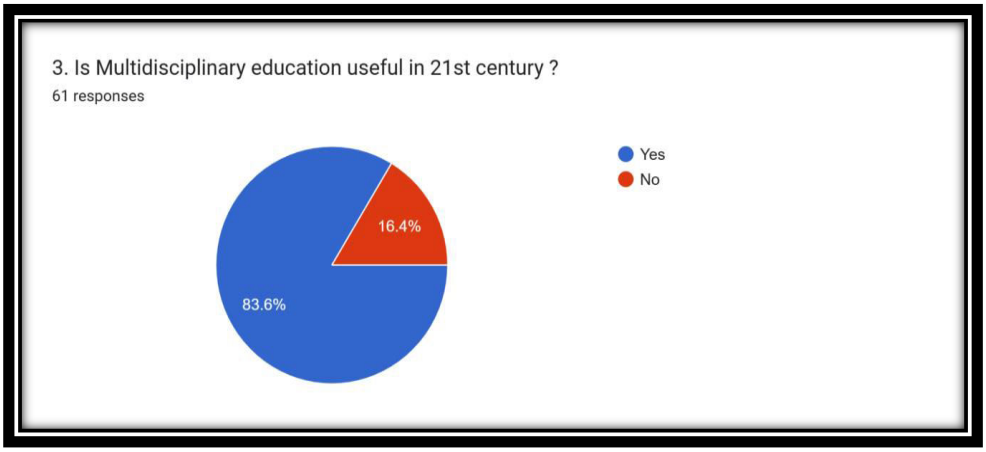
5. Data Analysis and Interpretation:
Data collected from 61 students through the questionnaire. The analysis of responses collected from the students are as follow:



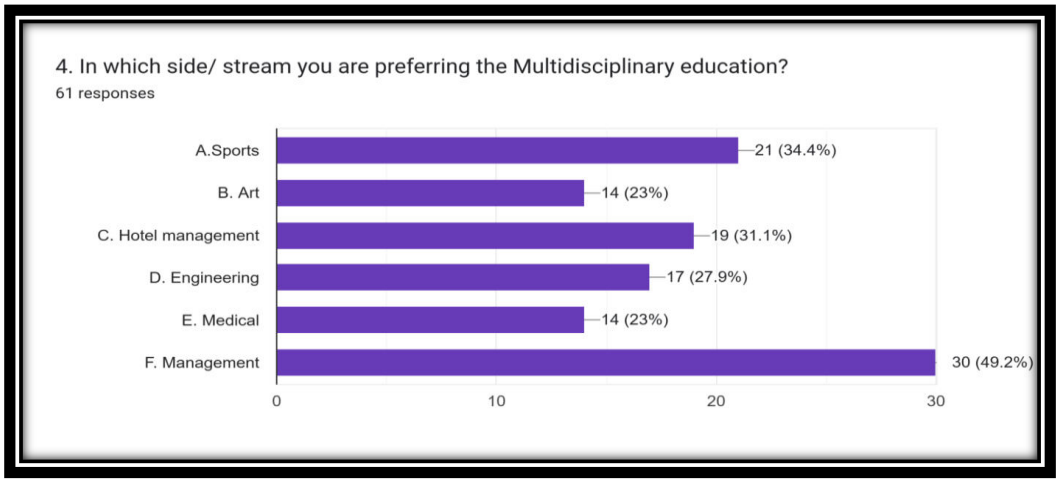
Above pie chart shows that 78.7% students are aware about the difference between Holistic and Multidisciplinary education and 21.3% students are not aware about difference between Holistic and Multidisciplinary education .



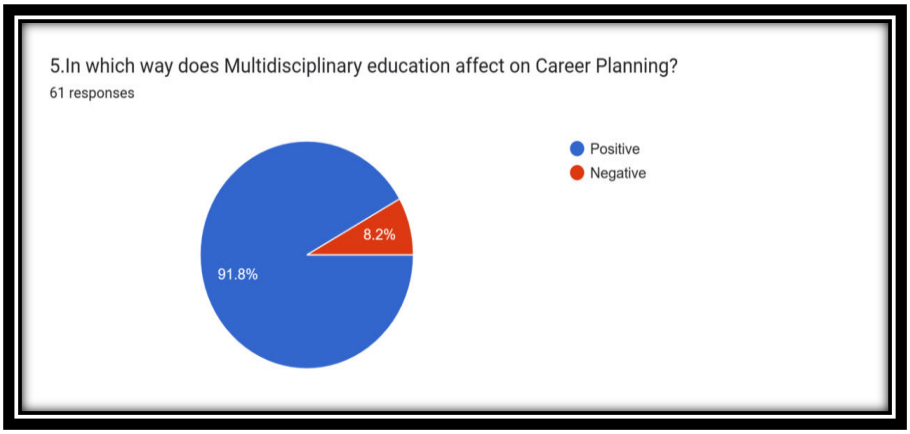
Above pie chart shows that 82% students are think that Holistic education is useful in 21st century and 18% think it is not useful



Above pie chart shows that 83.6% students are think that Multidisciplinary education is useful in 21st century and 16.4% think it is not useful.



Above pie chart shows that 49.2% students prefer multidisciplinary education in Management stream and list is 23% which is Medical and Art stream.



Above pie chart shows that 91.8% students think that Multidisciplinary education affect positive on career planning and 8.2% think that its affect negative on career planning.

6. FINDINGS OF STUDY

1. Most of the students are aware about the holistic and multidisciplinary education.

2. Most of the students think that Holistic education is useful in 21st century.
3. As compare to Holistic education most of the student think that Multidisciplinary education is useful in 21st century.
4. Most of the study prefer Multidisciplinary education in Management stream.
5. Most of the students think that Multidisciplinary education affect positive on career planning.

7. CONCLUSION

The 21st century skills like creative thinking, problem solving, research and creativity can be fostered and enhanced by integration of multidisciplinary in education.

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A MULTIDISCIPLINARY APPROACH ON TIME MANAGEMENT SKILL FOR STUDENTS

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ABSTRACT
New Education Policy 2020 has given great importance to collaborative approaches in the higher educational system. Traditional educational model is built on separation of knowledge into various categories. This technique has many limitations and this constraint has led to collaborative approaches among different disciplines which have resulted in effective solutions and came up with the New Education Policy 2020. The New Education Policy 2020 approach makes students aware of the interrelationships between all forms of knowledge and research to arrive at effective solutions. These methods help students overcome learning difficulties and achieve holistic development. Management plays a crucial role in the lives of every student of distinctive disciplines. According to the survey, 93% of students think managing work schedules is crucial. Majority of students say they are more productive and focused when they are organized. Students need to know the importance of organizing work and executing plans in their daily life to complete every task smoothly before the deadline is near and then they don't have to rush at the last moment. Planning and exercising conscious control over the amount of time you spend on activities is the process of time management. Time management is originally applied only to professional or business tasks, but eventually it came to mean both personal and professional activities. A variety of resources are available through Mind Tools to help you become a better time manager.

Keywords: New Education Policy, Organizing, Time management skills, Multidisciplinary approach

INTRODUCTION
The traditional educational model is built on the separation of knowledge into various categories which limits its effectiveness in addressing any topic. This approach has many limitations when it comes to finding practical solutions that could be applied in any area of study. However, this constraint has led to collaborative approaches among different disciplines which have resulted in effective solutions and came up with the New Education Policy 2020 that have accelerated development throughout the educational spectrum. The harmonious combination of concepts from various disciplines has yielded successful results that have accelerated developments in all fields.

The new education policy 2020 has given great importance to collaborative approaches in the higher educational system. The cornerstone of New Education Policy 2020 is liberal education, which emphasizes that education should be multidisciplinary. This approach sensitizes students to the interconnection of all kinds of knowledge and inquiry to derive effective solutions. These approaches help the learner overcome difficulties in learning and attain overall development.

This approach is beneficial because it sensitizes students to all types of knowledge and helps them grapple with difficulties they might encounter while learning. Additionally, this policy places emphasis on collaborative learning, which can help students overcome any difficulties they might face while studying.

A distinct educational approach called "multidisciplinary education" enables students to study and explore many courses or curricula from various fields. Education is not limited to one particular area of study. For instance, an engineering student can enroll in a humanities course.

The diverse perspectives that multiple disciplines may bring to a theme, subject, or issue are highlighted in a multidisciplinary approach to curriculum integration. In a multidisciplinary curriculum, different disciplines are merged to study the same subject.

In regular existence, a person does many things like dealing with domestic, own family, paintings, buying, saving pocket money, purchasing vegetables, coping with social lifestyles, and plenty of more. If one observes keenly, unknowingly, in these kinds of activities, a person surely manages much stuff in the daily life.

Just like this, management also plays a very crucial role in the daily life of students. The most important factor is to be organized and manage your time appropriately to accomplish a task successfully and efficiently. Organizing is a process that starts the execution of plans by defining roles, collaborating with others, and efficiently allocating resources to achieve the identified and intended results (goals). As a result, it is a process that combines resources with human labor to create a unified whole that may be used to accomplish predetermined goals. The managerial function of organizing is known as the organizational process.

The practice of managing and planning how to split your time between different activities is known as time management. If you execute it correctly, you'll find that you work more efficiently and effectively to complete more tasks in less time, even in the given time and heavy pressure. Most successful people have great time management skills. Time management for students is all about making your day purposeful. It is about controlling the time you have and optimizing it for focus, productivity. Many advantages become available to you when you have effective time management skills. Among them are:

- Improved production and efficiency.
- less tension
- Greater potential for advancement.
- More chances to fulfill your objectives.

OBJECTIVES

- To help students develop cognizance of the importance of organizing their work.
- To help students be able to organize schedules to accelerate productivity.
- To help students understand the importance of managing and effectively completing a task.

HYPOTHESIS

- Students need to organize their work to complete tasks achieving maximum productivity with minimum effort.
- Students of every discipline must know how to manage time effectively.
- As students' study most of the things on an online basis nowadays, they need to manage activities smartly and make optimum use of resources available.

RESEARCH METHODOLOGY

For this research study secondary data is used. Data was collected through the questionnaire. Questionnaires were circulated to the students of different fields of education. Questionnaire was circulated among random students for the collection of data. Therefore, the research is based on the limited collected samples only. Other theoretical data was collected by referring to articles and websites, magazines, articles etc.

Perception of Time Management

Planning and exercising conscious control over the amount of time you spend on activities is the process of time management, which enables you to work more efficiently. You can accomplish your intended goals with less work and more effective tactics by developing your time management abilities.

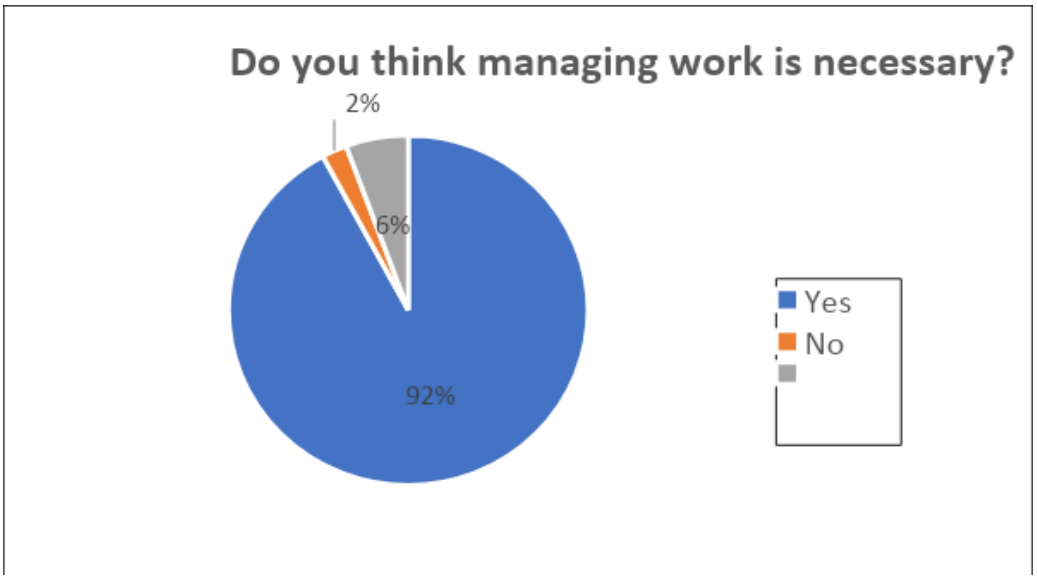
Time management calls for intelligent time management in order to use your time more effectively. Greater productivity, least stress, and more opportunity to pursue the things that matter are all advantages of effective time management. It includes a person having to stabilize an expansion of responsibilities from their job, social existence, circle of relatives, hobbies, and other commitments with the confined quantity of time they have. While one manages their time properly, they've the "alternative" to spend or manage activities at their own pace. A variety of abilities, resources, and methods can be utilized to manage time when completing particular tasks, projects, and goals in accordance with a due date Time management was once restricted to work-related or business-related chores, but over time it expanded to include both personal and professional activities. A time management system is a carefully thought out combination of practices, tools, techniques, and strategies. As it affects the project completion time and other factors, time management is typically a requirement in project management.

A variety of resources are available through Mind Tools to help you become a better time manager. They assist you in becoming more organized, setting better priorities, and scheduling tasks effectively so that you can finish them with focus and effectiveness. Time management consists of:

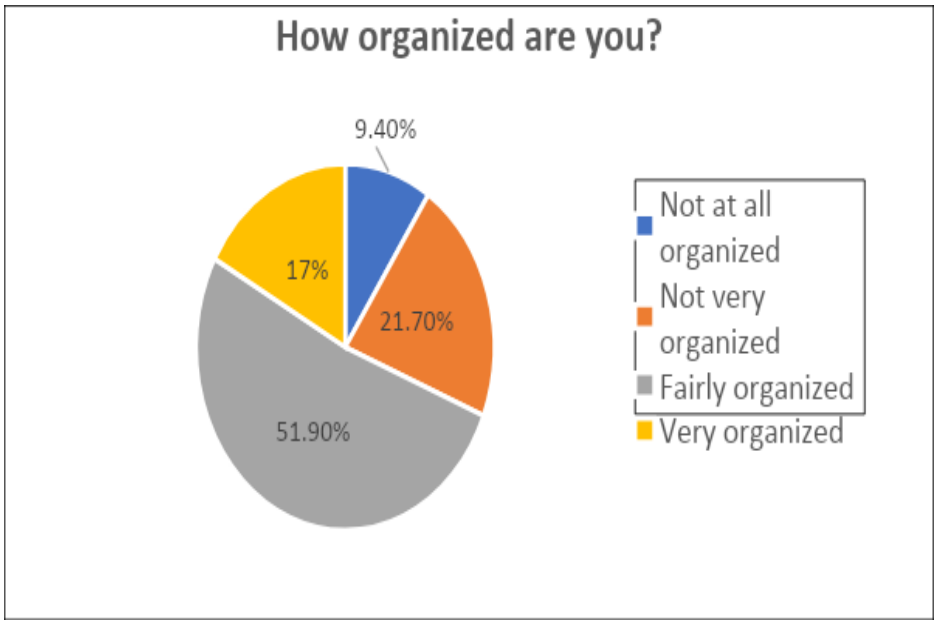
- Effective preparation of activities to be completed
- Creating objectives and goals
- Setting time limits
- Putting activities in order of importance
- Spending correct amount of time on the appropriate activity

Data Analysis Representation

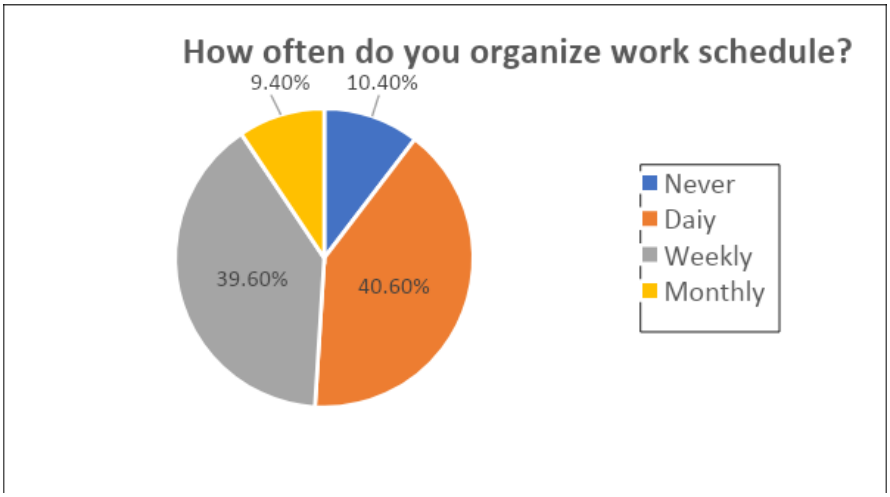
The analyses of responses collected from 100 students through questionnaire are as follows:



This pie chart shows how many students think managing work schedules is necessary. 93% of students think management is very crucial. 5% of them think it is required sometimes. Only 2% don't consider managing work is important. Here, we can see that the majority of students consider management as a crucial element.



This pie chart is based on the questionnaire where students were asked how organized they were in daily life. 9.40% students are not organized, 21.70% try to be organized, majority of students are fairly organized i.e. 51.90%. Only 17% of students are perfectly organized. The students who are organized are more productive and focused.



After questioning the students how often they schedule their work, observations were that 40.60% reschedule on a daily basis, 39.60% change work schedule every week, 9.40% students organize work on a monthly basis and only 10.40% don't organize at all.

The Various Methods for Students for Organize their Work and Its Benefits:

- **Organize Your Things:**

Everything is easier when you are organized. You can work faster without wasting time looking for things. Keep your assignments and class information organized by topic. Put them in folders,

notebooks or folders. If you find yourself stuffing loose papers into your bag or grabbing different notebooks for the same class, it's time to stop and reorganize! Clean your backpack every few days. Decide where you will store the things you want to keep. Unpack items you no longer need to take with you.

- **Organize Your Space:**

You need a good workplace - a quiet enough place to concentrate. It is best to work at a table or desk where you can spread out your work. Reserve a place to do homework. By sitting like this, you can move into the workspace and concentrate more quickly.

- **Organize Your Time:**

Use a scheduler or planner app to keep track of your schoolwork: Write down all your assignments and their due dates. This way you will never have to complete stuff at a deadline. Break large projects into parts. Mark the dates by which each part must be completed. Be sure to make a schedule as you work on each part. Mark the dates when you have tests. Then write when you study for them. Enter other activities in your calendar. Fill the times with group training, drama rehearsals, plans made with friends, etc. This helps you plan ahead because you can see when you might be too busy to do all the work. With the help of a planner, you can set aside time for school work on days when you have other activities. Set goals for study sessions. Each session should have a goal designed to help you achieve task-related milestones, such as doing research for a project or preparing worksheets to help you prepare for an exam. Setting goals not only keeps you accountable, but also sticks to deadlines.

- **Focus! Avoid Distractions:**

Multitasking makes you less focused. This means you are less likely to score good grades in the test. Electronic devices or gadgets can be a huge distraction while studying. Park your devices and only check them when you're done. Some people concentrate best when it's quiet. Others say they learn best with background music. But music with lyrics can annoy you. If you find yourself reading the same page over and over again, that's a sign that the music is distracting, not helpful. If you want to turn off other sounds, try natural sounds.

- **Mark Important Dates and Tasks:**

Actively add all life events, such as your work schedule, meetings, and social plans and activities, to a calendar, whether it is on your phone, the web, or a paper calendar.

Examine the timetables from each of your curricula, and record the dates of your assignments and exams on your calendar. You don't need to remember to check the syllabus for each class every day because these important dates are all in one place on your calendar, and you can see your busy weeks.

To make it easier to keep track of everything, color-code your calendar according to each class and topic you have. To keep track of your classes and the tasks you have to complete before the next class meeting, use a calendar or notebook. You won't forget anything by checking off items as you complete them on this list.

- **Taking Breaks:**

Taking a short break in between the tasks can help your mind stay fresh and focused. Get up from your desk. Move, stretch or walk to clear your head. After that, relax yourself by breathing exercises and then go back to your studies.

- **Refocus:**

If you are distracted, bring your attention back to study mode. Do not check your phone or any other electronic device. Remind yourself that now is the time to get on with the task and complete it successfully.

- **Avoid Procrastination:**

Begin your work. Starting homework isn't always easy. But you have to begin if you want to finish. Of course, you can think of a million other things you'd rather be doing. But if you procrastinate, you're more likely to feel stressed and least likely to do your best. To begin, you divide the homework into small tasks. First, choose one small task. Some people like to start with the toughest component. Others want to begin with something easy. Then do it.

- **Start Tasks Early:**

Keeping a calendar and making daily and weekly to-do lists can help prevent procrastination. Be sure to time your long-term tasks so you don't rush into them at the last minute. There are many advantages to starting tasks early: You'll have free time if something goes wrong. If you are not satisfied with the progress of the mission, you will have time to change direction. You have more time to review and edit your work and are more likely to produce a higher quality final product. You will feel less stressed.

- **Carry on to the Next Task:**

After completing the first task, say to yourself, "Alright. I did it.' Then you can take a short break and move on to the next task. Keep doing it. Walk away as you complete each task. Some people find that setting a timer for 5 (or 10) minutes helps. See how much work you can do before the timer runs out. Teach yourself to keep going for another five minutes. Don't rush. Simply try to work at a steady pace.

- **Don’t Stop:**

Stay focused on the final steps and details. After finishing, check your completed work. Place your work in the correct folder. Pack a backpack for tomorrow. Now you've done it. These skills may seem simple. But they are not always easy but you must keep going.

CONCLUSION

The New Education Policy 2020 has given great importance to collaborative approaches in the higher educational system. This approach sensitizes students to the interconnectedness of all kinds of knowledge and inquiry. It also helps them grapple with difficulties they might encounter while learning. The policy places emphasis on collaborative learning, which can help students overcome any difficulties. Planning and exercising conscious control over the amount of time you spend on activities is the process of time management. Time management was once restricted to work-related or business-related chores, but over time it expanded to include both personal and professional activities. A variety of resources are available through Mind Tools to help you become a better time manager. Data for this research was collected through a questionnaire and by referring to multiple websites. The analyses of responses collected from 100 students through questionnaire are as follows: 93% students think managing work schedule is very crucial, and 39.60% reschedule on daily basis, 39.50% change work schedule every week, 9.40% students organize work on monthly basis and only 10.20% don't organize at all. Organizing is a very crucial element in the daily lives of students. Therefore, students should learn how to organize their work to successfully complete a particular task before approaching the deadline. Students should organize their tasks properly and spend appropriate time to complete each task. They should mark important due dates and other activities on a calendar either manual or on an electronic device. Students need to change the habit of procrastination and start doing things early so that they don’t have to rush their work when deadlines are near. This gives them more time to recheck and make changes in the work until they are satisfied.

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MULTIDISCIPLINARY APPROACH TO ENHANCE QUALITY EDUCATION FOR MARGINALISED STUDENTS

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ABSTRACT
Multidisciplinary means combining or involving several academic disciplines or professional specializations in an approach to a topic or problem. A multidisciplinary approach is focused to redefine problems outside normal boundaries supported by different approaches from various academic disciplines and reach solutions based on a new understanding of complex situations. Students who are relegated to, confined to, a lower or outer limit of society due to reasons such as; violence at home, mental health issues, being parentless, behavioural issues, learning difficulties, substance abuse, cultural discrimination, sexual identity, material poverty etc., are referred as marginalised students. The marginalised students are facing different problems which are not adequately addressed by monodisciplinary approach because it requires expertise from various fields. In this paper, a brief description has been made about the multidisciplinary approach to provide quality education for the students at margin.

Keywords: Multidisciplinary approach, Marginalised students, Monodisciplinary approach, Quality Education.

INTRODUCTION
Multidisciplinary approach involves drawing appropriately from multiple academic disciplines to redefine problems outside normal boundaries and reach appropriate solutions and encourages cross-disciplinary collaboration, enables learners to develop critical thinking skills, and presents many "real world" opportunities for growth. Multidisciplinary research involves a coordinated effort that brings together several disciplines to provide complementary contributions in the service of a common goal (Fiore and Salas 2007). It provides opportunity to bridge disciplines and one can able to combine multiple disciplines and pursue different ways of thinking about the same problem. Students who are relegated to, confined to, a lower or outer limit of society due to reasons such as; violence at home, mental health issues, being parentless, behavioural issues, learning difficulties, substance abuse, cultural discrimination, sexual identity, material poverty etc., are referred as marginalised students. Access to basic education is still a problem for the marginalized students as they are hampered by many factors such as income differentiation, social status etc. They have only limited opportunities to make social contribution and have low confidence along with low self esteem. Growth of any society will not be attained its full form without these marginalized sectors. The marginalised students are facing multiple issues which are not fully addressed by monodisciplinary approach because it requires expertise from different fields. In the following sub headings, a brief description has been presented about multidisciplinary approach in order to enhance quality education for the students at margin.

MULTIDISCIPLINARY RESEARCH
Multidisciplinary research needs collaboration with different professionals in different disciplines with various backgrounds and skills to find a solution in a multidimensional way which is especially useful in the era of global competition to create innovative values. The different backgrounds of a multidisciplinary-team could provide different viewpoints and experience for better brainstorming across cultures. Multidisciplinary design project is regarded as a wonderful and worthwhile experience, giving students a new way of thinking and the potential to create innovative products (Joachim & Petra, 2004). For instance, the collaboration between art and computer science provided a very diverse disciplinary environment where

students were often forced to explore the boundaries of their own practice, exposed to the work of other disciplines, and better understood their own role and value in team-based collaboration (Sonnenwald,1995).

In general, monodisciplinary research does not foster creativity. Whereas multidisciplinary research can combine the expertise of a particular field with other fields and create a varied team of combination and there by lead to creativity and high impact research. For example, we consider research work on Assistive Technology for Cognition (ATC) which refers to the devices that use computer technology and are specifically designed to help people compensate for cognitive impairments. ATC also refers to a range of tools that includes low-tech and mainstream devices as well as specialized technology. ATC is the use of technology (usually high tech) to augment and assist cognitive processes such as attention, memory, self-regulation, navigation, emotion recognition and management, planning, and sequencing activity. Systematic reviews of the field have found that the number of ATC are growing rapidly, but have focused on memory and planning, that there is emerging evidence for efficacy, that a lot of scope exists to develop new ATC (LoPresti, Mihailidis, & Kirsch,2004). The research works in this area obviously indicates the need of expertise from different field like Cognitive Science, Special Education, General Education and from Educational Psychology. To explore new avenues in Assistive Technology for Cognition a multidisciplinary focus is indispensable. Jack Leeming (2017) emphasises that Multidisciplinary research can also leads to unusual scientific inventions. A lot of great science has come from the robust interactions of researchers from different fields. A good example of this is the discovery of "Magnetic resonance imaging" by Paul Lauterbur (a chemist) and Peter Mansfield (a physicist) — for this they were awarded the 2003 Nobel prize in Physiology or Medicine. An independent researcher designing and conducting their own separate experiments would never have had these opportunities (Jack Leeming 2017). Hence, it is essential to bring a group of researchers in different fields to investigate various issues and challenges faced by the marginalised students.

One of the important advantages of multidisciplinary collaboration is that all collaborators are forced to communicate either to keep their ideas or to avoid complex programming efforts and hence it improves communication ability. The process of multidisciplinary collaboration is hard to learn without real experience, so the advantage of having such multidisciplinary collaboration is to become acquainted with the complex process in industry. Thus, it gets acquainted with the collaborative process of product development. Similarly, multidisciplinary collaboration fosters collaboration skills especially with partners of different backgrounds. The lack of shared common language and knowledge requires better collaboration skills. Executing the multidisciplinary project through ideation to implementation for the betterment of marginalised students provides a sense of reality and prepares them for all round development. At the same time, the process gives them the self-confidence to cope with their future career.

All the participants learned things from the other participants with different backgrounds. In industry or in monodisciplinary research, it is not usual to work in a heterogeneous group for a whole year. However, this experience gives everyone an opportunity to observe different ways of development and to learn how to work as a team by complementing each other. Moreover, it improves sense of achievement and professional abilities. Otto Muskens (2013) listed the following advantages of multidisciplinary research;

1. The specific approach and knowledge may be standard for a discipline but novel in other fields. Applying the knowledge in this new field can give a leading advantage and a unique angle to solving outstanding problems.
2. Monodisciplinary fields can become crowded with specialists and the number of distinct topics to be studied is limited. Often a certain school or professor produces a number of

postgraduates who wish to establish themselves in a scientific career. They cannot all keep doing exactly the same things in the same field.

3. By teaming up with complementary research groups one can combine the collective expertise and gain synergy. This results in increased chances in original (high-impact) research and potential to get more output with less work (Otto Muskens 2013).

Applying the knowledge from numerous field provide advantage and a unique angle to solving outstanding problems faced by the marginalised students. The collective expertise and synergy form multi field would foster quality education for the students at margin.

CHALLENGES

Though multi-disciplinary approach is an effective approach to provide quality education for marginalised students, it has some limitation. Haydee Maria Cuevas et al., (2012) noted that the primary challenge in conducting multidisciplinary research is meeting the constraints of different stakeholders with different agendas. Thus, a potential disadvantage of multidisciplinary research is that conflicting data collection requirements may hinder the project team's ability to meet all their members' different research objectives.

Mitigating this issue requires establishing a systematic process by which the project team can objectively agree to a primary goal while still permitting stakeholders to determine their specific research objectives and carefully prioritize their data collection requirements for meeting this goal. Hsien-Hui Tang, & Emily Hsiao (2013) mentioned that one of the major challenges was the time constraint. Multidisciplinary researcher has to read more and invest more time in order to learn about the new disciplines. Therefore, multidisciplinary research implies more investment of researchers in learning new disciplines. They further emphasised that for a multidisciplinary team, researchers need to not only finish their own work, but also spend time communicating and responding to the modifications given by their counterparts. The latter two elements do not exist in a non-collaborative process. The differences in the backgrounds of the multidisciplinary research collaborators are another constrains. The first difference was in the level of their careers. The working schedule of a research scholar, was very different to the working schedule of an engineer, being a full-time programmer at a company. Therefore, they had very little mutually convenient time to discuss the details of the project. A varied training path is trickier to navigate than traditional specialized routes — but can be more rewarding (Myrna Watanabe,2003). The shift towards broader multidisciplinary training is relatively new. In monodisciplinary, one collaborator would handle, say, the mathematics, and the other the biology. Where as in multidisciplinary experts' form mathematics, Statistics, bioinformatics, biology and other field should work together in order to get a holistic approach to find a solution. However, Myrna Watanabe (2003) quotes that Charles DeLisi, Metcalf Professor of Science and Engineering at Boston University, cautions that mixing disciplines is not for everyone. People who prefer to be highly specialized should take a more traditional route to their scientific career, whereas people who like to see relationships and enjoy breadth would benefit from a multidisciplinary route. Multidisciplinary research is a pursuit of truth with the help of numerous specialized branches of learning which aims at achieving a common aim with the aid of knowledge of other disciplines. However, achieving common aim with divergent knowledge-based professionals is a tough task as everyone has different approaches and strategies towards a problem. Multidisciplinary approach is very much in vogue in developing countries to solve the problem. It represents a progressive scholarly method. The weaknesses of multidisciplinary research are mainly linked to problems of communication between people from different disciplines. These problems require more time to be settled down than conventional research projects would require (Lawrence A. Baker, 2006). Ayush Choudhary (2015) maintains that for these reasons, most people said that in multidisciplinary projects there is a high initial cost to pay to reach a good level of comprehension between the partners. Also,

physical proximity of partners is primordial via frequent meetings or exchange of students. It is more important than in the case of mono disciplinary projects because people have to learn more about the other disciplines, not only in terms of knowledge but also in terms of methodologies, tools and constraints. In fundamental research it is considered as vital to reach a good level of interaction. Therefore, costs of travelling are more important than in the case of mono disciplinary projects. Multidisciplinary researcher has to be more patient and sometimes, they have to explain things several times. They should be trained to communicate efficiently the basic of their discipline and make themselves understand. They should also be able to adapt to the custom of other disciplines. Hence, while adapting the multidisciplinary approach to provide quality education for marginalised students the researchers should carefully consider these limitations.

CONCLUSION

Multidisciplinary research is an investigation or inquiry to a problem for ascertaining the hypothesis combining many academic approaches, fields or methods. Further, it can be defined as a search for knowledge through objective and systemic method for an original contribution to the existing stock of knowledge involving a combination of several disciplines and methods. Molteberg and Bergstrom (2000) have argued that "Multidisciplinary Studies addresses current, actual problems, focusing on solving them – it tends to be applied and action or policy-orientated" But they have to work with different competencies. Different competencies mean also different approaches to problems, which can generate conflicts. Therefore, the management of such projects is crucial (Ayush Choudhary,2015). Though the multidisciplinary approaches have certain limitations it has many advantages like promoting synergy among various professionals and providing various solutions for a problem faced by the students at margin. As the marginalised students are having multidimensional problems this multidimensional approach addresses various issues faced by them.

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CHALLENGES IN IMPLEMENTATION OF MULTIDISCIPLINARY EDUCATION

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ABSTRACT
India has long tradition of multidisciplinary education from the universities like nalanda and Takshashila. A well said that good education was defined as knowledge of the 64 Kalaas, or arts, in ancient Indian literature .These 64 'arts' included not just subjects like singing, dancing and painting but also 'scientific 'fields like chemistry and mathematics, 'vocational 'fields like carpentry and clothes-making, 'professional 'fields like medicine and engineering, and' soft skills' like communication, discussion, and debate. The basic notion that all areas of creative human endeavor, including science, math, technical and professional courses, and soft skills, should be regarded as "arts" has its own roots in India. This idea of a "knowledge of many arts," or what is commonly referred to as the "liberal arts" in modern times must be brought back to Indian education in 2020.it is exactly the kind of education that would help Indian students to achieve success. This achievement faces many challenges regarding implementation of a multidisciplinary approach in the education system. Present research paper has taken outlook on the challenges in implementation of multidisciplinary education in college

Keywords: Implementation, curriculum, liberal arts, multidisciplinary education

OBJECTIVE:
(i) To evaluate the challenges in the implementation of the NEP

(ii) To explore and analyze the possibilities of creating a multidisciplinary environment in the present education System with the guidelines given by the NEP.

(iii) To analyze the drawbacks and advantages of the NEP for the implementation of the new design's pedagogy and curriculum.

METHODOLOGY:
The secondary data is used to learn more about challenges in implementation of multidisciplinary education. Exploratory method is used for present research work. Various e – resources and articles have been referred to.

DISCUSSION:
Implementation challenges in college:

1) Learning:
A concern remains over the worth of these certifications and degrees, even though flexibility in the higher education model through the concept of multiple exits is a huge step for reducing the number of dropouts. The acquisition of degrees has a strong association with jobs in the Indian mentality. Therefore, in order to put the new system into place, we must first demolish the outdated notion that obtaining a degree is a need for obtaining a job. This is a risky worldview that invalidates and discourages a person's other natural abilities.

2) A commitment to multidisciplinary learning:
The current educational system does not provide college and university teachers with formal pedagogy training or orientation. This urgently requires a redesign of the curriculum to make it flexible and natural for permitting the inculcation of base and higher-order thinking and skills at various levels of schooling. The goal of the policy is to replace single-disciplinary higher education institutions with multidisciplinary ones. This objective's path has been laid out with the best of intentions.

3) Financing:
It will be a challenge to completely implement NEP 2020's guidelines for the sector of higher education due to availability of limited resources. For students in low-income classes to be enrolled, private colleges must provide more scholarships, but the NEP does not clarify how this might be done. This suggests that the higher education system needs more public funding, which in reality does not at all suit well with the current situation. Simply put, the implementation requirements cannot be fulfilled with the growth in the education budget from 3 percent to 6 percent of GDP.

4) Internet connections:
We need internet access in rural areas because, as the pandemic proved, e-learning is the solution. Digital classrooms, expertise-driven online teaching models, AR/VR technologies to replace gaps through physical teaching and lab infrastructure, uniform assessment schemes across schools, career counseling sessions, and teacher training to master trimming technologies are all part of this program's digital infrastructure. In the upcoming ten years, this will still be a major challenge.

5) Changing one's attitudes:
The industrial sector and The British government has an impact on the current education system. It will involve two or more generations of parents, educators, teachers, grandparents. Simultaneously the corporate world also needs to change their recruitment and grooming policy.in this way overall change required in the educational system.

6) Implementing pedagogical adjustments:
Education not only develops cognitive skills but also develops social and emotional skills. These emotional skills are known as soft skills empathy, grit, perseverance, leadership and teamwork. Such value-based learning is required under the NEP, along with considerable curriculum and pedagogical changes. These pedagogical changes are tough and for successful implementation, they must be reinvented.

7) Analyzing evaluation:
The board that conducts the examination will have to review their parameters regarding assessment and also specify the proper rubric for the learning material.

8) A dedication to multidisciplinary learning:
The current educational system does not provide college and university teachers with formal pedagogy training or orientation. This urgently demands a reform of the curriculum to make it flexible and natural for permitting the inculcation of fundamental and higher-order thinking and skills at various levels of schooling. The goal of the policy is to substitute single-disciplinary higher education institutions with multidisciplinary ones. This objective's path has been drawn out with the best of intentions.

ii) Development of multidisciplinary Skills:
By creating multidisciplinary environment one can explore different skills. These skills are continually developing at all stages of life. Students use and improve their critical thinking skills as they begin to compare and contrast topics from other subject areas and look beyond their own discipline boundaries to consider other points of view.

Students use and expand their ability to think critically as they begin to contrast and compare issues from various subject areas and step outside the boundaries of their own discipline to explore different perspectives.

As they learn to switch back to the proper communication style for a given topic area, students who take multiple subjects have well-developed written and vocal communication skills. As

suitable to the many topic areas, multi-subject students may experience a variety of different assessment methods, such as essays, laboratory reports, written and oral exams.

Students start to consolidate their information by mixing ideas from many perspectives and taking into consideration diverse methods of learning.

Therefore, studying multiple subjects benefits in the development of key transferable skills.

iii) Evaluation of stakeholders:
Different stakeholders have different opinions regarding national Educational Policy. (2020).they are still in a dilemma of their advantages and disadvantages. Some of them are:

1) **Advantages:**
Students get the privilege to choose their own subject, courses and program from different institutes. They should study topics that can broaden their understanding. Subjects that can also enhance academic standards. Finally it will help to establish cordial relationship between teacher and students.

The keyword is **"choice of subjects"**, but it extends to the overall growth of students.it has both advantages for students as well as teachers. On one hand faculty have power to innovate usual teaching learning process. And on the other hand student could be able to access vast e content that can help them to know their real value. They will learn more about their deeper interests as they consume more e-content.

Students can analyze himself/herself in their teaching learning journey.so they can create interest in the field which they like most.

Multidisciplinary education allows students to develop a pragmatic attitude about subjects they will opt for and what could be their possible benefits. It enables students to crave their own path.

2) Disadvantages:
Since multicultural education may become more common, becoming diverted from the main learning objective may be more common. Your students can occasionally feel a little puzzled as they enroll for a variety of subjects and courses. Once they choose different subjects from different fields they lose their path.

There's a famous phrase – ***"Master of all trades, Jack of none."*** they may have knowledge of different subject from different field but not be master of anything. They may feel confused about choosing subject and different courses

CONCLUSION:
The NEP 2020 drafting committee has made an extensive effort to create a policy that takes into consideration many points of view, international standards in education, practical experience, and stakeholder feedback. The objective is inspirational, but the implementation strategy will tell if it will actively promote an inclusive education that trains students for the workforce and ready for the future.

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ISBN 978-93-93810-35-9

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