

# Approaches Towards Holistic and Multi-Disciplinary Education for Diverse Career Opportunities

Arti Chopra<sup>1</sup>, Dr. Padmakali Banerjee<sup>2</sup>

<sup>1</sup>Principal, Amity International School, S-46, Gurugram, Research Scholar, Amity Business School, Amity University Haryana;

<sup>2</sup> Former Pro Vice Chancellor, Amity University Haryana, President and Vice-Chancellor, SPSU, Udaipur

## Abstract

NEP 2020 outlines the ‘holistic’ and ‘multidisciplinary’ aspect of Education as a foundational principle for guiding a robust and vibrant school education ecosystem in India. The employment landscape requires individuals with skill sets embedded in multiple disciplines and a sound understanding of knowledge creation and its application for the benefit of self, society and the world. The aim of education is no longer limited to cognitive development, but also building character and creating holistic and well-rounded individuals equipped with the key 21st century skills. Schools and stakeholders need to engage in critical deliberations for working out transaction mechanisms ensuring that these skills and values are imbibed through engaging teaching and learning processes. The deliberations over this subject will entail critical discussion and brainstorming towards identification/ramifications of approaches appropriate for Holistic and Multi-Disciplinary Education for Diverse Career Opportunities.

**Key Words:** Multidisciplinary, holistic, new education policy, integrated learning

## 1.0 Introduction

“We cannot resolve any of the big challenges we face in the future with just people who have sat in silos coming together. We need young professionals who have come up in this way... to see the interconnections” (interdisciplinary doctoral supervisor, 2009, cited in [Lyll, 2019](#)). Silos in education is a simple structure that keeps things compartmentalized, organized, and safe. It’s perfect for storing grain on the farm; not so good in education. Subject-area silos in education, or the projected time frame for each subject, remain a constant in many of today’s schools. In many ways, today’s young adults are more aware, decisive, and responsible for their own futures. Beyond schooling, as students step into the world of higher education, it is the duty of modern universities to have an educational arena that fosters discovery, and growth and most of all, keeps the flame of interest eternally ignited. Multidisciplinary and holistic learning is an innovative medium through which students can learn sciences, technologies, and mathematics with liberal arts, humanities, languages, social sciences, professional skills, vocational skills, ethics, morality, human values, and so on at the same time. It aims at overall development which means now students can have knowledge or mastery across fields through access to infrastructure, trained teachers, and other facilities at the higher education institutes and newly introduced MERUs (Multidisciplinary Education and Research Universities). This study aims to find approaches for schools to design and offer a multi-disciplinary academic curriculum to foster the holistic development of students, in a bid to promote critical thinking skills among students.

All this, and much more can be achieved through a multidisciplinary approach. It helps to learn more, at once-Consciously breaking down boundaries between disciplines, students can take up courses from different schools. You could be studying public policy and at the same time, taking courses on journalism, law, or environment and be better for it. It also provides opportunities for

strong mentorship. Higher education is not only about gaining advanced knowledge of disciplines, but also learning more about yourself, discovering your interests, nurturing your passions, channeling your talents, challenging yourself, and growing as a student, individual, and member of society. An inevitable outcome of looking at life and learning through a multidisciplinary lens is the ability to approach problems with a broader perspective and inculcate Critical thinking & problem-solving skills. This crossing over and coming together of disciplines trains the mind to join the dots between many aspects of a problem. You begin to think out of the box. You can draw from a range of concepts, disciplines, and perspectives to identify the best-integrated solutions to today's problems that are themselves multifaceted. Sky's the limit for careers coming from a multidisciplinary background. This is only possible because of their multidisciplinary training, the support of faculty, and the very multidisciplinary institutional framework.

## 2.0 Objectives of the study

- To explore the obstacles and develop strategies to align with the goal of a multi-disciplinary and holistic learning experience for students
- To deliberate and understand diverse ways for breaking down the boundaries between disciplines and empower students to take up courses as per their interests of specialization.
- To discover and investigate approaches to promote flexible and innovative curricula for skill and competencies development of students that facilitate employment.
- To discuss opportunities to provide courses that focus on critical thinking, values for individual development for the creation of sustainable environment and societies

## 3.0 Review of literature

**3.1 Specific teaching pedagogies**, and assessment methods, are designed to continuously improve learning and test the application of Multi- Disciplinary knowledge among students

**3.11 Characteristics of An Effective Multidisciplinary Integrated Curriculum** are crucial for our knowledge. Multidisciplinary approaches focus primarily on the disciplines. Teachers who use this approach organize standards from the disciplines around a theme. Integrated curriculum is used to refers to an instructional method and materials for multidisciplinary teams of teachers to organize their instruction so that students are encouraged to make meaningful connections across subject areas. English, mathematics, science, social studies, and career technical teachers all collaborate to plan and present lessons that center around a central, career-themed issue or problem (Steinberg, 1997).

Figure 1.1. The Multidisciplinary Approach

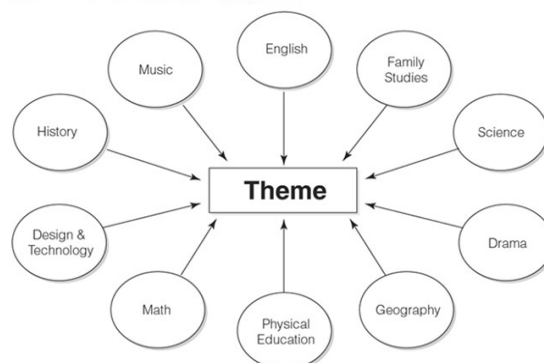


Fig1 - Characteristics of An Effective Multidisciplinary Integrated Curriculum

**3.12 An Effective Multidisciplinary Integrated Curriculum is designed to improve learning**

Academic and Technical Rigor Curriculum is designed to address real-world context (e.g. community and workplace problems) and address issues that matter to the students;

Applied Learning Units engage students in solving problems that call for competencies expected in high-performance work organizations (e.g., teamwork, problem-solving and communication);

Active Exploration Units are made to extend beyond the classroom by connecting to internships, field-based investigations, and community explorations; Adult Connections Units help to connect students with adult mentors and coaches from the community's industry and postsecondary partners; Assessment Practices Units involve students in regular performance-based exhibitions and assessments of their work;

Evaluation criteria reflect personal, school, and real-world standards of performance (Steinberg, 1997).

For teachers-Preparing students to work with and on multidisciplinary teams enhances their interpersonal skill sets, empathy, and marketability as future professionals and engaged citizens (Being able to appreciate others' personal and professional perspectives creates critical thinkers and well-rounded graduates

**3.13** A multidisciplinary assessment is an assessment that is administered by lots of different members of a professional team that have different areas of expertise. This can help gather a holistic view of the child's difficulties and different goals can be identified and prioritized. In this multidisciplinary approach, teachers fuse skills, knowledge, or even attitudes into the regular school curriculum. In some schools, for example, students learn respect for the environment in every subject area.

At Mount Rainier Elementary in Washington State, teachers incorporate the theme of peace into every thread of the school's curriculum (Thomas-Lester, 2001). Students begin each week promising to be peaceful, respectful, and responsible. They follow a list of responsibilities and learn about peace in their classes. In reading, for example, students analyze positive characteristics of people in stories; in social studies, they learn the importance of cultures working together. The school records the number of days without a fight as “peace days”; teachers write the accumulated number of peace days on the blackboard in every classroom. Teachers wear peace signs, and students greet each other with the peace sign. Fusion can involve basic skills. Many schools emphasize positive work habits in each subject area. Educators can fuse technology across the curriculum with computer skills integrated into every subject area. Literacy across the curriculum is another example of fusion.

**3.2 With the endorsements of compulsory internships in school education, it is possible to change this mindset through such tokenism of 'vocational training**

**3.21** As per ‘India Skills Report 2019’, CII, 84 percent of Indian students prefer internships. However, only 37 percent of organizations provide such opportunities for students. This makes a strong case for internships to be made compulsory starting from Intermediate students and exposing them to apply the concepts learned in a particular skill domain practically, in the school itself.

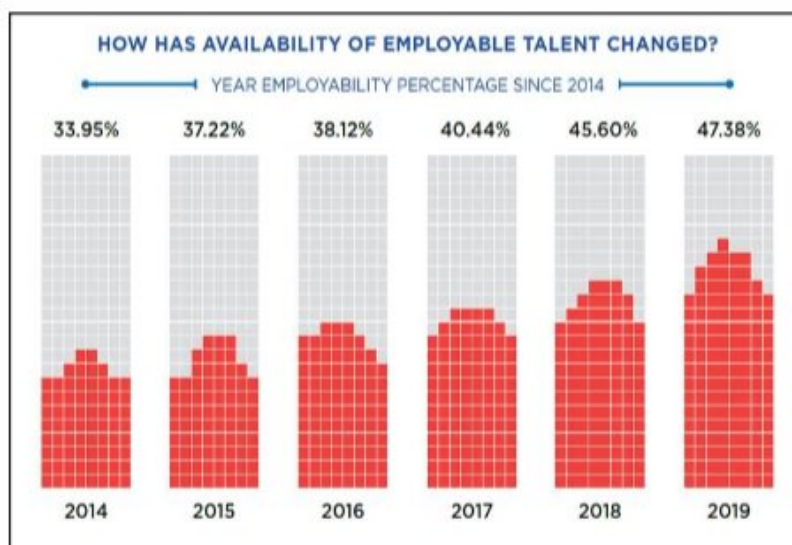


Fig 2 India Skills Report 2019: 47% Engineering graduates employable

There is also good news across sectors as employability continues to rise thus reaching a new high of 47% in year 2019– an incremental change of almost 2-3 percentage points since last year and a huge change of over 15% points in the past five years.

The new education policy definitely gives a huge scope and window of opportunity for all of us to move beyond mark sheets and work towards the holistic development of the children. Mindset reform is needed at three levels: Parents, Teachers/ Schools, AND the Community as a whole. All these three players must get rid of those processes that inhibit the overall growth of the child by focusing on the mark sheet for flaunting among others. A learner-centric process needs to be the foundation of all these reforms. The vocational course of skill course will be a short-duration module teachers would have to only spend 12 hours of teaching time on these courses.

Setting up key domain labs in school and running them like a production floor will be a good beginning. The student is given the opportunity to learn the complete value chain from production to sales in this three-month internship period. This will provide immense confidence to students to gear up to face the industry. An apprenticeship could be the best model to skill India's blue-collar workforce. It will not just enhance employability and reduce joblessness, but from an employer's perspective, it will lead to improved skills, productivity, and professionalism.

Mandating a six-month apprenticeship will transform the student into a fully-trained industry executive with real-time exposure to shop-floor dynamics. This dual system of training will lead to a win-win situation for the student as well as the Industry. This experience will result in producing highly confident and productive trainees for the Industry with an opportunity to put them on a successful career path.

**3.22** Statistics of internships across the world: Countries with the most successful apprenticeship programs are Germany and Switzerland. While it is impractical to copy these models in toto, some best practices are worth considering. Nearly half of all German and Swiss high school students graduate into apprenticeship programs instead of pursuing a university degree. Not surprisingly, the German apprenticeship model is a significant contributor to low levels of youth unemployment in the country as well as adding to the manufacturing strength. The time has come for us to create a unique ecosystem of government, employers, and the vocational training apparatus working in sync with each other to overcome the massive skill development challenge that India faces today.

**3.23** The policy says students should get hands-on experience in important vocational crafts, such as carpentry, electric work, metal work, gardening, or pottery making, as decided by states and local communities and as mapped by local skilling needs. A practice-based curriculum for Grades 6-8 will be appropriately designed by the National Council of Educational Research and Training. The policy suggests students participate in a 10-day bagless period sometime during Classes 6-8 where they intern with local vocational experts such as carpenters, gardeners, potters, artists, etc. Similar internship opportunities to learn vocational subjects may be made available to students throughout Grades 6-12, including holiday periods. Vocational courses will also be made available online. Bagless days will be encouraged throughout the year for various types of enrichment activities involving arts, quizzes, sports, and vocational crafts, the policy suggests.

**3.24** Teacher education will include methods for the recognition and fostering of such student talents and interests. The NCERT and National Council for Teacher Education will develop guidelines for the education of gifted children. Olympiads and competitions in various subjects will be conducted across the country, with clear coordination and progression from school to local to state to national levels, to ensure that all students can participate at all levels for which they qualify. Efforts will be made to make these available in rural areas and in regional languages to ensure widespread participation. Public and private universities, including premier institutions like the IITs and NITs, would be encouraged to use merit-based results from National, and International Olympiads, and results from other relevant national programs, as part of the criteria for admissions into their undergraduate programs.

**3.3 Approaches to promote critical thinking skills** among students and how to dismantle the current hierarchical structure in an education system that inhibits innovation



As the famous Chinese philosopher Confucius said, “Learning without thought is labor lost; thought without learning is perilous”. If we wish to advance and discover new wondrous solutions to the plethora of problems surrounding us then we must push teachers to develop critical thinking in their students from a young age.

Open-ended questions break the cycle of rote learning, the first step is to ask the students open-ended questions that force them to think. A history teacher could ask their student why a certain bill was passed in an assembly by understanding the viewpoints of various invested parties.

**Problem-solving-**The best way to boost critical thinking is to challenge the students with a tricky problem. They will learn to use the resources at hand to produce creative solutions. Something they can relate to would be good. Asking Math questions related to the journey your student takes to get to school or regarding school activities would be a good idea.

**Encourage creativity-**There is a convention of making students learn a fixed formula created to solve an issue. This limits their creative spirit and discourages them from using their own ideas. Asking your pupils to give further suggestions for a catalyst speeding up a chemical synthesis would be helpful. They would sift through possible catalysts and analyze their properties. Especially with younger children, playtime and learning while playing can be very productive.

**Interactive games** are often called brain games because they push the player to think hard and win them. So, the reward is an attractive incentive to keep them going and practicing critical thinking. There are some great options at Free Thinking Games, Smore, and Exquisite Minds. Games with enticing rewards can be excellent motivation for the development of critical thinking.

**Teach independence** you give your pupils the answer to a question yourself every time then you make them dependent on you for all answers. They will not be able to do well in tests where a different question is asked or it is asked in an indirect way. Let them think for themselves so they may learn improvisation.

**Ideal examples** Beginners might not understand what critical thinking entails so have some superb examples ready to show them. Tell them how those critical thinkers efficiently solved real-life problems and what rewards they received for their abilities.

**Classification** is important that your students know how to organize their random thoughts. This is where classification comes in. As they practice sorting their ideas into relevant groups, they will be able to assess which ones will work best for them.

**Vocabulary lessons** that spark the internal creative process of their minds are not enough. Your students must know how to express themselves. Once they have sorted out their ideas in their heads teach them essential terms like accurate, ambiguous, analyze, bias, authority, interpret, rational, claim, justify, etc.

**Mind Connections-** While the students learn to organize their thoughts during a brainstorming session, they need to be encouraged to discover the relationships between their ideas. They need to define ideas, compare viewpoints, find similarities, gauge differences, and understand why the best answer is correct. Perhaps there is more than one accurate answer.

**Demonstrations-**Examples of respected critical thinkers are very inspiring but in order to reach your students show them how it’s done. A practical demonstration of problem identification, brainstorming, and evaluation of options, weighing pros and cons, and ultimately reaching a decision is highly effective.

**Productive debates-**Involving your students in a healthy debate will give them a chance to test their critical thinking skills. They will learn to argue with their own logic and find weaknesses in those of others among other things.

**Peer Assessment-**The competition of your students is with their peers so it makes sense that they should carry out discussions based on critical thinking with each other. By bouncing off ideas, they will determine the advantages and disadvantages of every option and come to conclusions depending on their independent thought processes.

**Design Thinking-** It is a methodology with a new approach to developing and enhancing products and services thanks to a set of tools in line with its vision — although its applications are not

limited to those uses. One Design Thinking process consists of 5 mutually interdependent stages that build on each other. The 5 Stages of Design Thinking are Empathize, Define, Ideate, Prototype, and Test. Prototypes are designed to be tested with users. Based on the results of such tests, we can then start the process again, that is, we can empathize even more, improve our ideas, make new prototypes, and retest in order to get solutions that truly and appropriately address the issues concerning our users.

**3.4 Leaders can contribute towards flexible learning networks.** Flexible networks, open communication processes, and leaders with vision and a creative, constructive, and positive spirit favorably affect educators' feelings and enhance innovation and fluidity. Taking into consideration that a highly hierarchical system may adversely affect incentives to exert effort as well as the efficiency of communication channels, one may consider the importance of the contribution of a leader and the development of leadership as an acute issue that has a significant impact upon staff morale and efficient performance, especially in the military and educational sector. In addition, to be more innovative, individuals should develop self-leadership characteristics that are defined as processes by which individuals may navigate and motivate themselves to achieve desired behaviors and ends

**3.5 Integrative model between Industry and schools for encouraging Vocational Educational Training to jointly design curriculum, codification of skills, internships, and joint certification**

3.51 In India, the practical component of vocational education and training is mostly missing. The duality principle should be made mandatory in India. Germany can serve as a role model in this. Both the government and private companies should come to a consensus regarding the standards to be followed with respect to the structure and content of courses and how they should be made integral to practical training. A closely related issue is the relevance of joint certification. Industry must be on board during certification as well since this is where the major employers are located. Unless there is practical training at the work sites combined with classroom teaching in schools, the private sector would not be able to participate in joint certification. To ensure the organic involvement of private companies, the government must understand how the duality principle could prove to be an agent for change.

It will also promote transparency of qualifications and facilitate learner mobility between different qualifications, thus encouraging lifelong learning. In India, the National Vocational Education Qualification Framework (NVEQF) developed by the Ministry of Human Resource Development (MHRD) provides a descriptive framework for linking various qualifications to set common principles and guidelines for a nationally recognized qualification system.

**3.52** Establishing a National Training Fund for skills training is seen as a way to generate funds from private players for vocational training. Training the trainers -Teacher training is a strong component of the German dual system to be adopted in India. India's VET faces a serious shortage of teachers. The problem that teachers themselves have had little or no practical industry experience is even more serious. This is the opposite of the situation in Germany or China. Linking the vocational schools with the enterprises, renewing the vocational curricula and making them competency-based, improving teachers' competencies, enhancing the material conditions of the vocational schools, improving the acceptance of vocational training, reforming policies and the mechanisms in administration and Management of vocational training are the main tasks to make the whole system more efficient and effective.

**3.53** Curricular and Pedagogical reforms -improved course alignment and content connections and improved workplace-related skills and attitudes this also includes improved work-related skills and attitudes. Pedagogical reforms include practices such as hands-on problem-solving cooperative or team-based activities lessons requiring multiple forms of expression and project work that draws on knowledge and skills from several domains. Teacher collaboration reforms included the teaming of academic and vocational teachers joint time together for teams and a new organizational structure that empowers teachers

**3.54** Future education can be grounded in the text, both nonfictional and literary narrative, or experienced through cinema and visualization (even virtual reality and gaming). And of course, future education can be set within the context of the broad panorama of history, human and natural, and the diverse array of multicultural perspectives – one's sense of the future should be embedded within the more expansive temporal context of the past, present, and future. Attempting to connect with diverse modes of consciousness supports a holistic approach to futures more expansive temporal context of past, present, and future. Approaching future education through multiple and often integrative disciplines helps to realize this holistic goal.

## **4 METHODOLOGY**

A multidisciplinary curriculum is studying a topic from the viewpoint of more than one discipline and solving a problem using a different disciplinary approach (Klaassen, 2018). For example, reducing the CO<sub>2</sub> emissions from a car can be achieved by studying how to develop fuel chemistry or by studying how to improve car engine performance. Instead of teaching the Unification of India only in the chapters of History, in a single discipline, it can be taken up in multiple disciplines like health education, language, IT, science, art, etc., which certainly enables better understanding and retention. Inculcation of leadership qualities amongst students helps them to enhance their personality quotient, giving them better results in their overall performance in schools and Universities.

### **4.1 CHANGE IN MINDSET TOWARD VOCATIONAL EDUCATION**

A survey was conducted on educators and the findings indicated:

- 84 % of Indian students prefer internships,
- only 37 % of organizations provide such opportunities for students.

Mindset reform is needed at three levels, school, university, and the Govt. CBSE schools have already begun to introduce skill courses. Hands-on experience in important vocational crafts, Internship opportunities to learn vocational subjects, Recognition of Gifted, 10-day bagless period, and National, and International Olympiads.

### **4.2 Endorsements of Compulsory Internships**

Compulsory internships have garnered widespread support from various stakeholders, including educators, employers, and policymakers, due to the numerous benefits they offer to students and the workforce. Here are some endorsements of compulsory internships:

1. **Skill Development:** Compulsory internships provide students with hands-on experience in a real-world work environment. This practical exposure helps them develop and refine essential skills that are often not adequately covered in the classroom. These skills may include communication, problem-solving, teamwork, and technical competencies relevant to their field of study.
2. **Industry Relevance:** By requiring internships, educational institutions can ensure that their programs align with industry needs and standards. This ensures that graduates are better prepared to meet the demands of the job market, making them more employable.
3. **Professionalism:** Internships expose students to workplace etiquette, professional conduct, and workplace norms. They learn how to navigate the corporate world, which is invaluable for their future careers. This exposure helps inculcate a sense of professionalism from an early stage.
4. **Confidence Building:** Gaining practical experience through internships boosts students' confidence in their abilities. It allows them to apply their theoretical knowledge to real-world situations, giving them a sense of accomplishment and self-assurance.
5. **Networking:** Internships provide students with opportunities to network with professionals in their field. These connections can lead to mentorship opportunities, job offers, or valuable references when they enter the job market.
6. **Reduced Joblessness:** Compulsory internships can help reduce joblessness among graduates by making them more attractive candidates to potential employers. Employers often prefer candidates with relevant work experience, and internships fulfill this requirement.

7. **Career Path Clarity:** Internships enable students to explore different career paths within their chosen field. This exposure can help them make informed decisions about their career goals and aspirations.
8. **Improved Productivity:** As interns gain experience and become more familiar with their roles, they often become more productive. This benefits employers as they have access to motivated and skilled individuals who can contribute effectively to the organization.
9. **Employer Engagement:** Compulsory internships encourage employers to engage with educational institutions. They play an active role in shaping the future workforce, providing feedback on curriculum design, and identifying potential talent early on.
10. **Economic Growth:** A workforce that is well-prepared and possesses practical skills contributes to economic growth. By ensuring that students are work-ready through internships, a country can strengthen its workforce and, in turn, boost its economy.

In conclusion, compulsory internships are widely endorsed because they bridge the gap between academia and industry, enhancing the employability of students, reducing joblessness, and fostering a more skilled and confident workforce. They are a win-win for students, educational institutions, and employers alike.

### **4.3 Creating an Integrative Model for Promoting Vocational Education and Training Through Collaboration Between Industries and Schools**

In fostering a robust vocational educational training system, it is imperative to embrace the duality principle, emphasizing a harmonious partnership between government institutions and private companies. Central to this endeavour is the government's role in promoting transparency in qualifications and facilitating the seamless mobility of learners across various educational pathways. A key aspect of this collaborative approach is the endorsement and implementation of joint certification mechanisms. These mechanisms bridge the gap between academic institutions and industry standards, ensuring that graduates possess the practical skills and knowledge demanded by the job market. By jointly certifying educational programs, both public and private sectors send a powerful signal of their commitment to producing a highly skilled and adaptable workforce.

To ensure sustainable funding for vocational training initiatives, the establishment of a National Training Fund becomes crucial. This fund serves as a reservoir of resources, facilitating the continuous improvement of vocational education programs and the provision of necessary infrastructure. It further underscores the commitment of all stakeholders to the development of a skilled workforce that can meet the evolving needs of the industry.

Enhancing the competencies of vocational educators is a pivotal element of this integrative model. By providing teachers with ongoing professional development opportunities, we ensure that they stay current with industry trends and teaching methodologies. Well-equipped teachers are better prepared to deliver high-quality, industry-relevant education to their students.

Furthermore, forging strong links between vocational schools and enterprises is fundamental. Collaboration with local businesses not only provides students with practical experience but also ensures that curricula align with real-world demands. These partnerships can take the form of internships, apprenticeships, or mentorship programs, allowing students to gain firsthand knowledge of their chosen field.

In transforming vocational curricula, the shift towards competency-based education is paramount. This approach focuses on developing a broad spectrum of practical skills, abilities, and knowledge that directly align with the requirements of specific jobs. By emphasizing competencies, students can graduate with a well-rounded skillset, making them more attractive to potential employers.

Lastly, improving the overall perception and acceptance of vocational training is essential. This involves debunking stereotypes and highlighting the numerous benefits of vocational education, such as higher employability and earning potential. Encouraging dialogue among students, parents, educators, and industry leaders can reshape societal attitudes towards vocational training, ultimately leading to its broader recognition and acceptance.



In summary, the integrative model for promoting vocational education and training thrives on collaboration, transparency, and adaptability. By fostering consensus between government agencies and private enterprises, establishing a dedicated funding source, enhancing teacher competencies, strengthening ties with the industry, adopting competency-based curricula, and changing societal perceptions, we can create a holistic approach that empowers individuals with the skills and knowledge needed for a prosperous future.

Improving the acceptance of vocational training and management of vocational training is much needed.

**4.4 Approaches to promote critical thinking skills** among students encompass a diverse range of strategies aimed at nurturing their intellectual prowess. One effective method is the use of open-ended questions, encouraging students to think beyond the surface and delve deeper into topics, fostering analytical thinking. Problem-solving activities engage students in real-world scenarios, allowing them to apply their cognitive abilities to find solutions. Encouraging creativity through interactive games not only makes learning enjoyable but also stimulates innovative thinking. Teaching independence involves empowering students to explore ideas autonomously, cultivating self-reliance in their thought processes. Project-Based Learning (PBL) offers a holistic approach by combining classification, vocabulary lessons, mind connections, and demonstrations, fostering multifaceted critical thinking. Productive debates and peer assessment further enhance these skills by challenging students to defend their viewpoints and evaluate others' arguments. In sum, these approaches collectively contribute to the development of well-rounded critical thinkers, equipping students with essential skills for success in the ever-evolving world.

**4.5 Education Reforms.** Certain reforms are pertinent to be introduced. They are:

#### **1 Pedagogical Reforms:**

**Improved Course Alignment:** Ensure that the curriculum is aligned with real-world needs and future job market demands. Regularly update and revise courses to incorporate the latest industry trends and advancements.

**Workplace-Related Skills and Attitudes:** Include soft skills like communication, critical thinking, problem-solving, and teamwork in the curriculum. Emphasize character education to develop positive attitudes and values in students.

**Hands-On Problem-Solving:** Encourage experiential learning through hands-on problem-solving activities. This could include projects, case studies, and internships that allow students to apply theoretical knowledge in practical settings.

**Cooperative or Team-Based Activities:** Promote collaboration among students through group projects and activities. Teach them how to work effectively in teams, which is a crucial skill in the workplace.

#### **2 Teacher Collaboration Reforms:**

**Teaming of Academic and Locational Teachers:** Encourage collaboration between subject-area teachers and vocational or locational instructors. This can lead to more interdisciplinary approaches to education and help students see the real-world applications of what they're learning.

**Professional Development:** Provide opportunities for teachers to learn from each other and share best practices. Offer workshops and training sessions focused on collaborative teaching methods.

**Shared Resources:** Facilitate the sharing of teaching materials, lesson plans, and assessment strategies between teachers. This can reduce duplication of efforts and improve overall teaching quality.

#### **3 School Transition Reforms:**

**Planning Partners for Schools:** Involve parents and community members in the planning and decision-making processes of the school. Their input can provide valuable insights into the needs and aspirations of the students.

**Transition-Specific Curriculum:** Develop a curriculum that specifically addresses the challenges students face during transitions, such as moving from elementary to middle school or high school to college. Offer support programs and resources to ease these transitions.

**Credentials and Certifications:** Ensure that students receive recognized credentials or certifications upon completing certain stages of their education. This can enhance their employability and motivate them to stay in school.

Additionally, it's crucial to have a robust system for assessing the effectiveness of these reforms. Regular evaluation and feedback mechanisms can help refine and improve these initiatives over time. Education reform is an ongoing process, and these reforms can contribute to a more responsive and effective education system that prepares students for success in the modern world.

### 5.0 Analysis

A survey was done in Haryana, wherein 70 educators from different backgrounds, participated and answered the questionnaire. The results were plotted in the form of a pie chart that is given here:

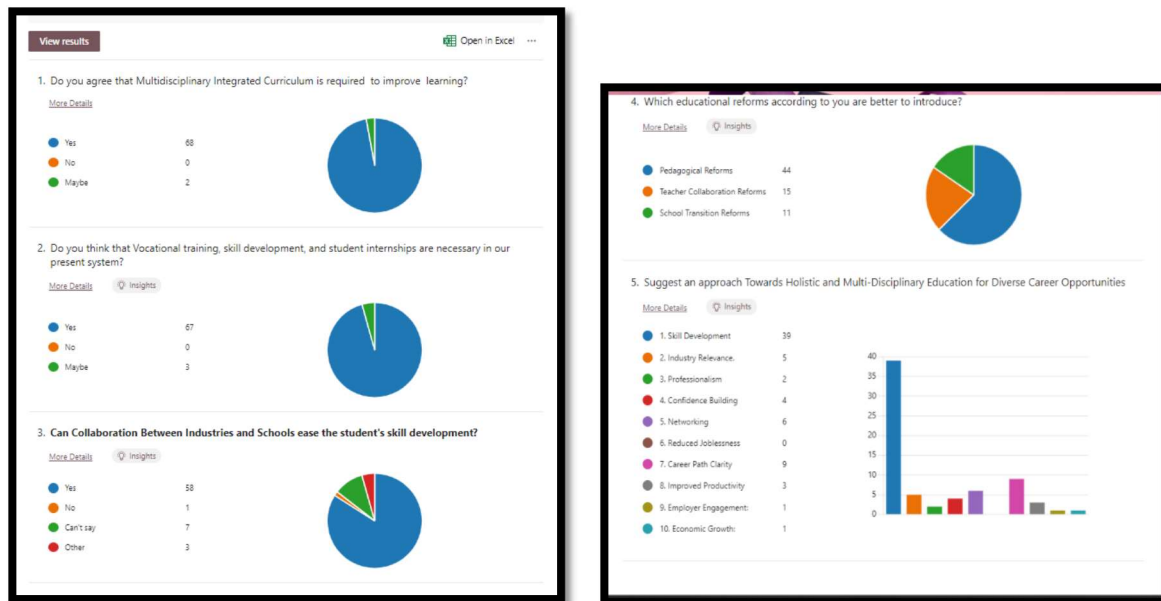


Figure3 -Pie Chart

The questionnaire given was as follows:

1. Do you agree that a Multidisciplinary Integrated Curriculum is required to improve learning? Yes/No/Can't say
2. Do you think that Vocational training, skill development, and student internships are necessary in our present system? Yes/No/Can't say
3. Can Collaboration Between Industries and Schools ease the student's skill development? Yes/No/Can't say
4. Which educational reforms according to you are better to introduce? Pedagogical Reforms/Teacher Collaboration Reforms/School Transition Reforms
5. Suggest an approach Towards Holistic and Multi-Disciplinary Education for Diverse Career Opportunities: 1. Skill Development,2. Industry Relevance,3. Professionalism,4. Confidence Building,5. Networking,6. Reduced Joblessness,7. Career Path Clarity,8. Improved Productivity,9. Employer Engagement,10. Economic Growth:

### 6.0 Results & Discussion

A careful analysis of the survey made us conclude that:

- 97% of educators agreed that a Multidisciplinary Integrated Curriculum is required to improve learning
- 96% agreed that Vocational training, skill development, and student internships are necessary in our present system
- 84% said that Collaboration Between Industries and Schools eases the student's skill development

- For choosing which educational reforms were better to introduce: For Pedagogical Reforms, 63% agreed, For Teacher Collaboration Reforms 21% agreed, For School Transition Reforms 16% agreed
- For Suggesting an approach Towards Holistic and Multi-Disciplinary Education for Diverse Career Opportunities: 39% went in favor of Skill Development, 9% for Career path clarity, and the others for given options in less percentages.

Based on the survey results, it is evident that educators strongly support the implementation of a Multidisciplinary Integrated Curriculum to enhance learning outcomes. Additionally, there is a consensus among educators that vocational training, skill development, and student internships are crucial components of the current educational system.

Furthermore, a significant majority of educators believe that collaboration between industries and schools plays a pivotal role in facilitating students' skill development. When it comes to educational reforms, there is a notable preference for pedagogical reforms over teacher collaboration and school transition reforms. In terms of suggestions for achieving holistic and multi-disciplinary education for diverse career opportunities, the most popular approach is focused on skill development. This indicates that educators recognize the importance of equipping students with practical skills that can prepare them for a wide range of career paths.

In summary, educators emphasize the need for a multidisciplinary curriculum, vocational training, and industry-school collaboration to improve education. They are more inclined towards pedagogical reforms and prioritize skill development as a key element in fostering holistic and diverse career opportunities for students.

The study was conducted in an urban school and the scope of the study can be expanded to rural areas as well to form a consensus.

## 7.0 Conclusion

NEP 2020 can reshape the education system through structural changes, participative pedagogy, digital technology integration, and fostering a mindset for curiosity and community engagement. It can Foster a culture of curiosity, community involvement, and independent thinking among students while implementing NEP 2020 reforms. Schools can foster holistic development through multi-disciplinary curricula, integrating subjects and extracurricular activities. Effective pedagogies like inquiry-based learning and continuous assessment promote critical thinking and the application of multi-disciplinary knowledge is a solution for the future. An integrative model between industry and schools can enhance vocational education by jointly designing curricula, validating skills, and offering meaningful internships. The multi-disciplinary regimens are meant to help create a holistic futurist educational experience that addresses the breadth and richness of the human mind.

## References

1. Ananiadou, K., & Claro, M. (2009). 21st century skills and competencies for new millennium learners in OECD countries.
2. Akdemir, Ahmet & Kaya, Zeki & ATAŞ AKDEMİR, Öznur. (2016). Learning and Teaching: Theories, Approaches and Models
3. Callaghan, J. (2020). Towards a Border-Free Education. *International Journal of Multidisciplinary Perspectives in Higher Education*, 5(2), 140-145.
4. Chun, H. K., Comyn, P., & Moreno da Fonseca, P. (2021). Skills development in the time of COVID-19: taking stock of the initial responses in technical and vocational education and training
5. Guha Majumdar, M. (2019). Competency-based Education in Indian Schools: Realities and Vision for the Future. Available at SSRN 3455647
6. Hero, Laura-Maija, and Eila Lindfors. "Students' Learning Experience in a Multidisciplinary Innovation Project." *Education + Training*, vol. 61, no. 4, Apr. 2019, pp. 500–22. DOI.org (Crossref), doi:10.1108/ET- 06-2018-0138



7. Korkmaz, G., & Toraman, Ç. (2020). Are we ready for the post-COVID-19 educational practice? An in
8. Miles-Tribble, V. (2015). Assessing student leadership competencies and adequacy of preparation in seminary training.
9. Tramonti, Michela & Tramonti, Luigi & Dochshanov, Alden. (2019). Multidisciplinary Strategies in Education.
10. Van den Berg, C. (2018, November). 21st Century Learning: Changes to Knowledge Acquisition in a Digital World. In International conference on Intellectual Capital and Knowledge Management and Organizational Learning. Kidmore End (pp. 330-338).