CHALLENGES AND OPPORTUNITIES FOR BRIDGING THE SKILL GAP BETWEEN ACADEMICS AND INDUSTRY

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Abstract

In 21st century, Industry does not look for the people with only exceptional academic track record, but they look for individuals with enough knowledge, aptitude to learn, the passion for excellence and on how intensely they are involved in delivering results. Hence in order to prepare future leaders of the nation and for expediting growth of the nation into an economic powerhouse, a Jobrole specific & Industry-Based Skill Benchmarking Standard needs to be created, which desires to be complemented with the assessment standards or questionaries' and the appropriate methods (Written, Viva, Case Study or Group Discussion) used for evaluation.

Key words: School Education, College Education, Vocational Training (VET), Employment Needs, NEP 2020

Introduction

Incongruously, in India the Academia measures the learning level of the student through closed book assessments pertaining to the individual's reading, writing and arithmetic abilities through a predefined syllabus. Hence the Students today are keener to memorize the topics or answers which is a part of the curriculum and on how to present it in the examination to obtain optimum scores. Although prerequisite, of the Industry could be in contrary to the expectations set by the Academia. Hence in order to bridge this gap the Academia & the Industry Experts needs to define a transparent and acceptable Skill Benchmarking Standard, so that the output matrices captured can be scientifically analysed to deliver the best-fit skilled individuals to the Industry.

Objectives

The present paper is designed for following objectives:

1. To study on the School, College & the Vocational Education system in India.

2. To study on the Skill-Mismatch existing between Academia and Industry requirements

3. To highlight the scope and the existing challenges in order to bridge the Skill-Gap.

Methodology

The study is based on Primary & Secondary data collected from reputed articles of research journals, books, prominent sites, report sets relevant to higher education and skill development. This paper focusses on contemporary educational scenario with respect to Skill-Gap Analysis in India, in order to bridge the existing Skill-Gap and to enhance the Employability level.

Education To Employment – Bottleneck

Often company executives express the mismatch that exists between their expectation from the students coming out of College and what is been provided to them as educational inputs during their studies in the College. Some of the gaps are:

A. Lack in elementary education in High Schools:

Many repots have mentioned that poor training of the students in high school is one of the main causes of the mismatch between open jobs and desired skills. Hence when the foundational educational is unscrupulous, whatever is built upon such foundation would not hold well. Since high school students are the future workforce, it is essential that they possess adequate educational background while in school, they should be prepared to successfully engage in an academic experience that will help prepare them for their future career.

B. Rigidity in amending the Curriculum:

The curriculum should be finalized in consultation with industry experts and reviewed frequently. Effective role plays and relevant case studies needs prepared and the faculty is expected to bridge the gap between theory and application by bringing in these live cases to the institute. For this, faculties are needed to be constantly in touch with the industry experts or engage the Industry Expert in doing so.

C. Lack of Industry orientation:

The essence of the education system still follows Examination-based evaluation processes and not Assignment-based Assessments. Majority of the teachers have come with prolific academic background but limited industry exposure. Hence the focus of Academia does not seem to be inclined towards preparing the students of today to future professionals. In addition, students needed to develop qualities like passion, commitment, and integrity. The Training curriculum needs to incorporate modules that imparted the mentioned values.

D. Lack of clarity on the skills employers need:

Despite many discussions about skills gap & possible solutions, it still remains unclear which skills the individual lacking. Each company looks for a different mix of skills and experience based on the nature of the business. Hence the aspirant should be well prepared in Communication, Critical Thinking, Team Collaboration, Logical Creativity in addition to Technical & Interpersonal Skills

E. Lack of attention towards Skill Development:

Classroom learning was perceived to have poor retention. This was primarily because faculty did not adapt to the desired learning style of students. Learning style varied based on students' academic background/ knowledge base/ work experience. The importance of networking should be stressed upon. Students need to think like managers. This could happen if there is awareness of industry/ environment and if they were application – oriented. Students should be encouraged to develop and propose new models.

Education in Schools:

Based on the report of "National Institute of Educational Planning and Administration 2016-17";

Overall around77% schools are managed by Government & 23% schools are managed by the Private Management. The percentage ofGovernment managed schools in rural sector is around 83% as compared to 47% in the Urban sector (close to 4:1 respectively).On the contrary, the Government & Private Managed Schools in the Urban Area is 47% and 48% respectively (close to 1:1 on either side).
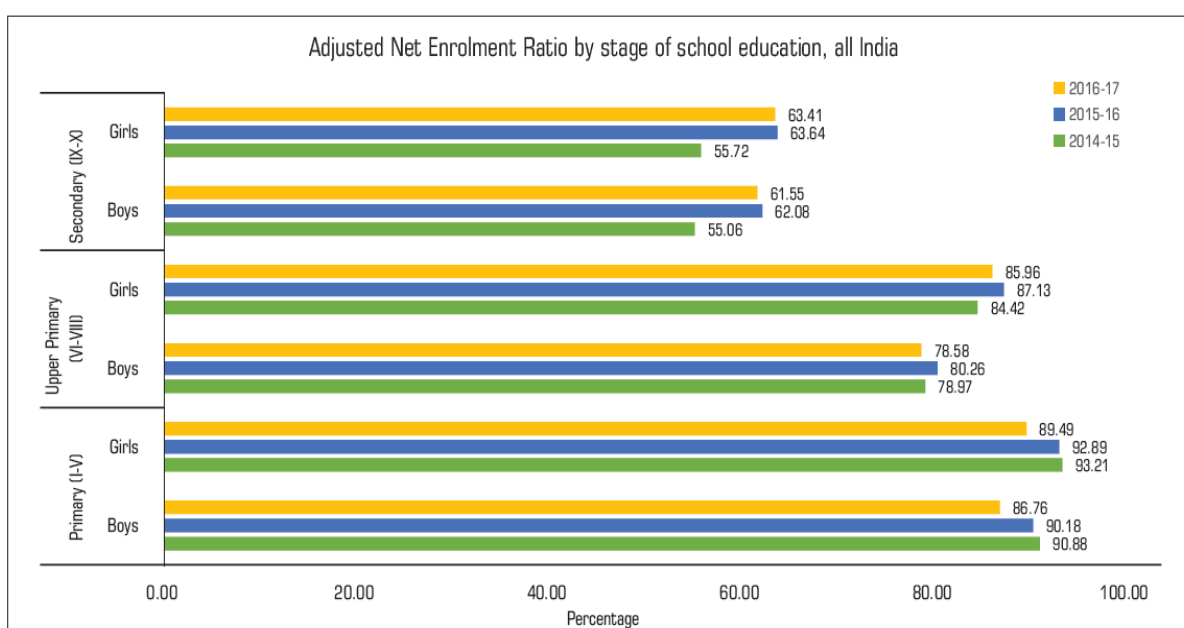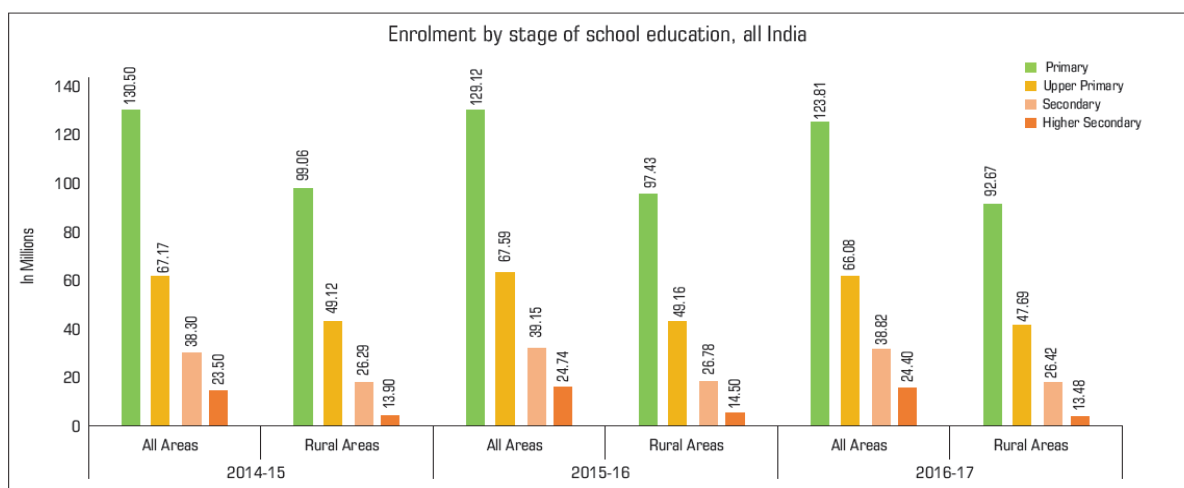
Percentage distribution of schools by management, all India
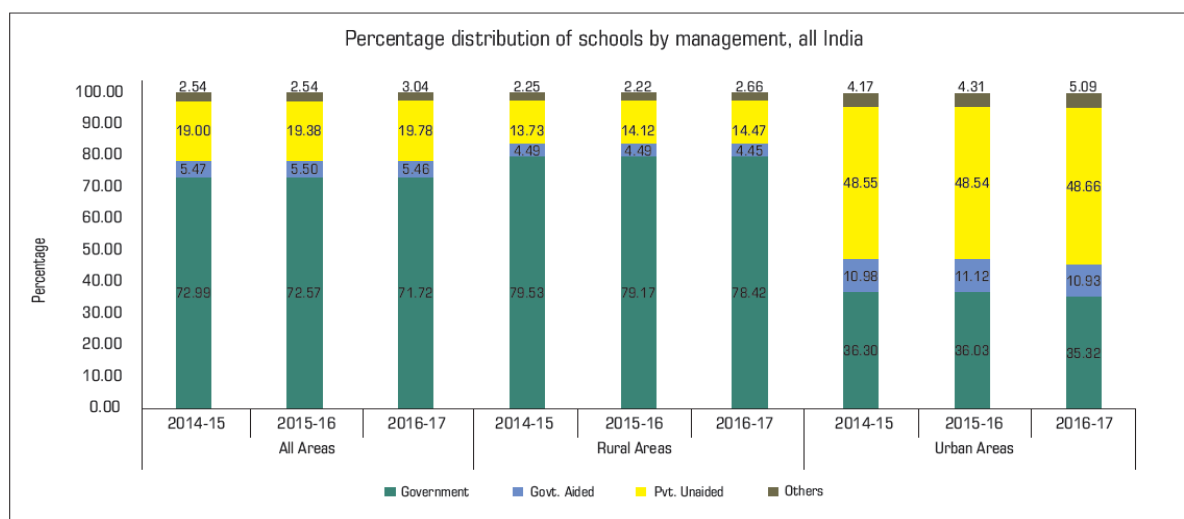
Number of schools by management and school category, All India												
Year	Mgt	PS (I-V)	UPS (I-VIII)	HSS (I-XII)	UPS (VI-VIII)	HSS (VI-XII)	SS (I-X)	SS (VI-X)	SS (IX-X)	HSS (IX-XII)	HSS (XI-XII)	Total
2014-15	Govt	711925	172871	8720	120108	22080	17038	27066	14523	10484	2303	1107118
	GA	20757	11449	1617	10120	10661	922	11169	10348	4232	1767	83042
	PvtU	92491	82297	26482	15885	5697	25824	13474	12201	7032	6781	288164
	Others	21948	11089	658	1275	296	1364	524	889	240	285	38568
2015-16	Govt	708746	172721	12629	119597	19569	13968	29764	14276	10876	2654	1104800
	GA	19839	11534	1779	10260	10094	1211	11737	10418	4407	2508	83787
	PvtU	90900	85682	25944	16443	5823	32655	10567	12145	7276	7624	295059
	Others	21061	12143	821	1244	296	1566	485	747	95	242	38700
2016-17	Govt	703752	171073	14127	119243	19961	15348	29332	15288	11028	2219	1101371
	GA	19558	11549	5551	10373	6971	6669	9227	7660	3940	2358	83856
	PvtU	90852	90548	27875	16586	6348	35427	11878	10145	7485	6581	303725
	Others	26079	14095	990	1377	306	2105	480	841	107	278	46658

Enrolmentof Students from Primary to Higher Secondary Level from the Urban, Rural & Overall in India. The observations & findingsfrom these reports are mentioned below:

The number of students studying at Primary and Sr. Secondary (Overall) Level is less by 80%. If we compare it with Rural and Urban level, then it is 85%& 71% respectively.Details are below:

- The number of students studying at Primary and Upper Primary (Overall) Level is less by 47%. If we compare it with Rural and Urban level, then it is 49% and 41% respectively.

- The number of students studying at Upper Primary and Secondary (Overall) Level is less by 41%. If we compare it with Rural & Urban level, then it is 45% and 33% respectively.

- The number of students studying at Secondary and Sr. Secondary (Overall) Level is less by 37%. If we compare it with Rural & Urban level, then it is 49% and 26% respectively.

Enrolment by stage of school education, all India

Adjusted Net Enrolment Ratio by stage of school education, all India

Enrolment of Students of School Education - Stage by Stage, All India										
OVERALL (URBAN + RURAL SECTOR)										
Year	PS (I-V)	UPS (VI-VIII)	Elementary (I-VIII)	DROP% (V-VIII)	SS (IX-X)	SS OVERALL (Grades I-X)	DROP% (VIII-X)	HSS (XI-XII)	HSS OVERALL (Grades I-XII)	DROP% (X-XII)	OVERALL DROP% (V-XII)
2014-15	130501135	67165774	197666909	49%	38301599	235968508	43%	23501798	259470306	39%	82%
2015-16	129122784	67593727	196716511	48%	39145052	235861563	42%	24735397	260596960	37%	81%
2016-17	123807892	66079123	189887015	47%	38823854	228710869	41%	24397536	253108405	37%	80%

RURAL SECTOR										
Year	PS (I-V)	UPS (VI-VIII)	Elementary (I-VIII)	DROP% (VIII-X)	SS (IX-X)	OVERALL (Grades I-X)	DROP% (VIII-X)	HSS (XI-XII)	OVERALL (Grades I-XII)	DROP% (X-XII)	DROP% (V-XII)
2014-15	99058549	49118710	148177259	50%	26286213	174463472	46%	13896380	188359852	47%	86%
2015-16	97434173	49155591	146589764	50%	26778648	173368412	46%	14499690	187868102	46%	85%
2016-17	92666832	47691479	140358311	49%	26421488	166779799	45%	13468241	180248040	49%	85%

URBAN SECTOR										
Year	PS (I-V)	UPS (VI-VIII)	Elementary (I-VIII)	DROP% (VIII-X)	SS (IX-X)	OVERALL (Grades I-X)	DROP% (VIII-X)	HSS (XI-XII)	OVERALL (Grades I-XII)	DROP% (X-XII)	DROP% (V-XII)
2014-15	31442053	18046762	49488815	43%	12014470	61503285	33%	9605080	71108365	20%	69%
2015-16	31688452	18437929	50126381	42%	12365149	62491530	33%	10234963	72726493	17%	68%
2016-17	31140875	18387585	49528460	41%	12402123	61930583	33%	9130534	71061117	26%	71%

It is observed that difference between the enrolment percentage in Rural and Urban sector form Primary and Sr. Secondary level is 14% (Rural on the Higher Side).

From the analysis of the data it was observed that:

- 76% of the Schools are managed by the Government where the average Teachers per School is around 4.5 (under-staffed); majority of these Schools are in the Rural area contribute around 56% of students.

- On the contrary, 5% of the Schools Government-Aided Schools partially managed by the Government; having 10 Teachers per School contribute around 12% of students.

- The Private-Unaided Schools (majority of them are in Urban Areas) contribute around 5% of Schools with 10% of Teachers with 12% of Students.

The National Education Policy (NEP) 2020 & it's Impact on the Education Sector:

This envisaged for some transformational reforms in the Indian education system. It talks about the education system that lays emphasis on experiential learning along with a focus on 21st-century skills like critical thinking, problem-solving, etc.

The policy expects that by the year 2020, at least 50% of learners would have acquaintance to vocational education through school and higher education system. Team NSN has analysed the National Education Policy 2020 and has come up with 10 important points which needs to be carefully considered in thecontext of vocational education and skills in NEP 2020. They are:

1. Vision for a balanced education is, it needs to beSocially meaningful and aspirational.

There is NO hard separation between arts and science streams, between curricular and extra-curricular activities, between vocational and academic streams, in order to eliminate harmful hierarchies between different areas of learning.

2. Sensitization of Vocational Education for building competencies.

Vocational education is perceived to be inferior to mainstream learning and meant largely for students who are unable to cope with formal education. This is a perception that affects the choices any studentmakes. It is a serious concern that can only be dealt by a complete resourcefulthinking on how vocational education is offered to students, in future.

3. Inclusive, Interoperable, interdisciplinary and outcome-based education

The fourth vertical of HECI will be the General Education Council (GEC), which will frame expected learning outcomes for higher education programs, also referred to as 'graduate attributes'. A National Higher Education Qualification Framework (NHEQF) will be formulated by the GEC and it shall be in sync with the National Skills Qualifications Framework (NSQF) to ease the integration of vocational education into higher education."

4. For 21-century capacity building

A holistic and multidisciplinary education will help in developingwell-versed individuals who possess critical 21st-century capacities in turfs across the arts, humanities, languages, sciences, social sciences, technical and vocational fields. An ethic of Social engagement, Soft Skills, Behavioral Skills, Presentation Skills, Customer Service Skills, Situation HandlingAnalytic Skillsand rigorous specialization in a chosen field is extremely indispensable.

5. School internships for skill appreciation and craft-centric learning

Every student will take anyexciting course during Grades 6-8 that provides aninspection and hands-on experience of a sampling of important vocational crafts, such as carpentry, electric work, metalwork, gardening, pottery making, etc., which can be decided by States and local communities and as mapped by local skilling needs.

6. Professional development of teachers

A common set of National Professional Standards for Teachers (NPST) will be developed by 2022, by the National Council for Teacher Education in its restructured new form as a Professional Standard Setting Body (PSSB) under the General Education Council (GEC), in consultation with NCERT, SCERTs, expert organizations in vocational education and higher education institutions towards preparation and development of Teachers.

7. Integration of Vocational Education with Academic Learning and formation of NCIVE

Vocational education will be integrated into all school and higher education institutions in a phased manner over the next decade. Focus areas for vocational education will be chosen based on skills gap analysis and mapping of local opportunities. MHRD will constitute a National Committee for the Integration of

Vocational Education (NCIVE), consisting of experts from across Ministries, in collaboration with industry to oversee these efforts.

8. *Job market orientation with multiple-entry and exit options*

The undergraduate degree will be of either 3 or 4-year duration with multiple exit options within this period, with appropriate certifications, e.g., a certificate after completing 1 year in a discipline or field including vocational and professional areas, or a diploma after 2 years of study, or a Bachelor 's degree after a 3-year program."

9. *Recognition of Prior Learning (RPL) and alignment with International Standards*

The National Skills Qualifications Framework will be comprehensive for each discipline vocation and profession. In addition, Indian standards will be aligned with the International Standard Classification of Occupations maintained by the International Labour Organization. This Framework will provide the basis for Recognition of Prior Learning.

10. *Technological development and student entrepreneurship*

As the technological development are poignant inan explosive pace with the sheer creativity of tech-savvy teachers and entrepreneurs including student entrepreneurs. It is certain that technology can and will impact education in multiple ways, which is foreseen at the present time, however the implications are far fetching and still awaited to be perceived.
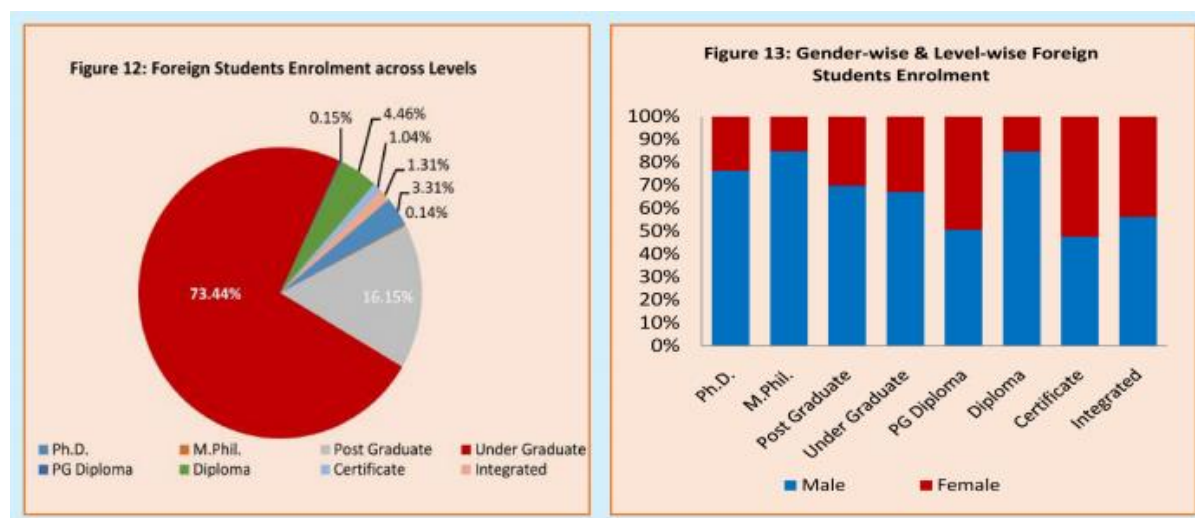
Suggestions and Recommendations:

- As the Government managed Schools are under-staffed and the Students per School ratio is comparatively low, the Motivation Level of the Teachers & Students seems to be low leading to higher Dropout percentage. Hence Government needs to rethink on merging or realigning Schools to ensure higher staffing and higher Students per School ratio.

- Schools managed by Government seems to be under performing as compared to the Government-Aided or Private-Unaided Schools, as a result of this the Skill Level of the students in the School is dismal. Hence Government needs to redefine on a suitable mechanismin recalibrating the Skill and Performance of the Government Teachers based on which the Teachers can be Trained or Terminated from their service.

- Private-Unaided Schools are mushroomed in the Urban Sector considering the profitability factor. Hence Government needs to motivate the Private-Unaided School management to open their Branches in the Rural area to ensure quality education and to reduce the Dropout percentage. This can be done by either by providing Incentives or making Policy changes in providing affiliation to open any school.

- The infrastructure of the Schools in the Rural sector needs to be built, at par with the facilities provided to the Schools in the Urban Sector. Government can explore the Joint-venture or adapt PPP Model to ensure thatthe Students from Rural sector are not deprived of the infrastructural facilities.

- All the Schools in the Rural sector needs be connected with High-Speed Internet with computer LABs and to be inked to the Online-Digital Learning Platform, so that the Students can get the Best coaching facilities, at par with the Students in the Urban Sector.

- The Online-Digital Learning Service Providers & the Professional Coaching Institutes MUST be asked to provide all their services – FREE of COST to the Students in the Rural sector to ensure Financial inability does not become any bottleneck for Talent in Rural sector.

- There needs to be a Minimum Salary/Compensation provided for all Teaching & Non-Teaching Staffs in all Schoolsso that the Quality of Teachers and other Staff members can be improved and their appraisals needs to be linked to their performance so that Performers are rewarded and Non-Performers are eliminated.

- Most importantly, if Government can implement a policy that all the kids of the Government or PSU employees MUST study in Government Schools & the kids of the Teaching & Non-Teaching Staffs in all Schools MUST study in their Schools, then it can bring a radical change in the Educational System.

Education in College/University:

- Based on the AISHE 2019 Report; there are 993 Universities, 39931 Colleges and 10725 Stand Alone Institutions. 385 Universities are privately managed. 394 Universities are located in Rural area. 16 Universities are exclusively for women, 3 in Rajasthan, 2 in Tamil Nadu & 1 each in Andhra Pradesh, Assam, Bihar, Delhi, Haryana, Himachal Pradesh, Karnataka, Maharashtra, Odisha, Uttarakhand and West Bengal.

- There are 548 General, 142 Technical, 63 Agriculture & Allied, 58 Medical, 23 Law, 13 Sanskrit and 9 Language Universities and rest 106 Universities are of other categories. 77.8% Colleges are privately managed; 64.3% Private-unaided and 13.5% Private-aided. Andhra Pradesh & Uttar Pradesh have about 88% Private-unaided colleges and Tamil Nadu has 87% Private-unaided colleges, whereas, Assam has 16.0%.

- Total enrolment in higher education has been estimated to be 37.4 million with 19.2 million male and 18.2 million female. Female constitute 48.6% of the total enrolment.

- Gross Enrolment Ratio (GER) in Higher education in India is 26.3%, which is calculated for 18-23 years of age group. GER for male population is 26.3% and for females, it is 26.4%. For Scheduled Castes, it is 23% and for Scheduled Tribes, it is 17.2% as compared to the national GER of 26.3%.

- Distance enrolment constitutes about 10.62% of the total enrolment in higher education, of which 44.15% are female students.

- About 79.8% of the students are enrolled in Undergraduate level programme; the highest number (35.9%) of students are enrolled in Arts/ Humanities/Social Sciences courses followed by Science (16.5%), Engineering and Technology (13.5%) and Commerce (14.1%). 1,69,170 students enrolled in Ph.D. which is 0.5% of the total student enrolment.

Figure 12: Foreign Students Enrolment across Levels

Figure 13: Gender-wise & Level-wise Foreign Students Enrolment

Employability changed over the years:

Source: *India-Skills-Report-2020*

	2014	2015	2016	2017	2018	2019	2020
B.E/B.Tech	51.74%	54.00%	52.58%	50.69%	51.52%	57.09%	49%
MBA	41.02%	43.99%	44.56%	42.28%	39.4%	36.44%	54%
B.Arts	19.10%	29.82%	27.11%	35.66%	37.39%	29.3%	48%
B.Com	26.99%	26.45%	20.58%	37.98%	33.93%	30.06%	47%
B.Sc	41.92%	38.41%	35.24%	31.76%	33.62%	47.37%	34%
MCA	43.62%	45.00%	39.81%	31.36%	43.85%	43.19%	25%
ITI	46.92%	44.00%	40.90%	42.22%	29.46%	NA	NA
Polytechnic	11.53%	10.14%	15.89%	25.77%	32.67%	18.05%	32%
B.Pharma	54.65%	56.00%	40.62%	42.30%	47.78%	36.29%	45%

Domain-Based Hiring - The most number of candidates:

DOMAIN WISE PERCENTAGE	2014	2015	2016	2017	2018	2019	2020
Undergraduate or Equivalent	6%	6%	8%	6%	14%	12%	8%
ITI	6%	7%	14%	13%	7%	12%	3%
Polytechnic	8%	4%	7%	11%	4%	7%	3%
PG Or Equivalent (MCAC/MA/M.com/CA/M.Tech)	6%	8%	8%	6%	10%	11%	13%
Management or Equivalent - MBA, PGDM	22%	22%	16%	16%	19%	13%	17%
Graduates - BCA/BBA/B.Com/BSc.etc	24%	23%	23%	23%	24%	22%	26%
Engineers (BE/B.Tech)	28%	29%	25%	25%	22%	23%	31%

2020 PRODUCTIVITY % (EMPLOYED VS EMPOYABILITY): ENGINEERS – 63%, GRADUATES – 54%, MBA/PGDM – 31%, PG – 51%, ITI/POLYTECHNIC - 9%

The Findings:

1   Quality of teaching and research:

As per the National Education Policy Draft Report by TSR Subramanian "quality of many universities and colleges and the standard of education they provide are far from satisfactory". An estimated 40% of college teachers work on a non-permanent, ad hoc basis and are designated variously as temporary, contractual, ad hoc and guest faculty. This is a serious problem as people with a good academic record don't want to take such positions as these are less attractive than permanent one.

2   Quality of student intake:

In India students do not select their field of interest for further studies. The most popular courses are engineering or medicine. Sports and arts are considered very much as a second choice. If a student is not able to get admission into a science or business stream, they choose arts and social sciences. Students are encouraged by their parents to go into streams that have higher pay levels or a higher number of jobs, rather than according to their field of interest. The best students go to IITs and AIIMS and the rest go to other universities if they want to continue their studies.

3   Faculty-Student ratio:

Since a large number of positions are lying vacant at various universities the teacher-taught ratio is not up to the required level. However, staff shortages aren't the only cause for concern. According to the All India Survey on Higher Education (AISHE), India's GER was 27.4 per cent for 2017-18. This compares to around 60% in countries like France and Britain, and 36% in Brazil – another BRICS country.

4   Lacking Employability:

Higher Education in India is plagued with rot learning, lack of employability and skill development due to the low quality of education is found to a huge concern to keep the students motivated for studies.

5   Quality of Infrastructure:

Poor infrastructure is another challenge to higher education in India. Due to the budget deficit, corruption and lobbying by the vested interest group, public sector universities in India lack the necessary infrastructure, Private sector is no better either.

6   Outdated Curriculum:

Outdated, irrelevant curriculum that is dominantly theoretical in nature and has a low scope for creativity. There is a wide gap between industry requirements and universities' curriculum that is the main reason for the low employability of graduates.

7   Lacking new or innovative Teaching methods:

The Indian higher education system has been following lecture drive method for several years which has turned ineffective and not sufficient in many areas. There are no approaches like mentoring, spot visits, practical educational tours and involvement in research projects with peers. Finally, one need to change the teacher's training curriculum along with content, subject and methodology. Teachers must be encouraged to take short duration professional training courses, which could help the teacher's learning and development areas, as well.

8   Regulatory Concerns:

Management of the Indian education faces challenges of over-centralization, and lack of accountability, transparency, and professionalism. As a result, affiliated colleges are increased and students are burden with administrative functions leading to decreased focus on academics and research based learning activities have been diluted. This is leading tosubjective learning by students for obtaining higher percentage of marks, which intern is becoming the biggest bottleneck for employability.

Suggestions and Recommendations:

Higher Education - Expectations:

- **INVITE** the Right Student and Create the Right **TALENT**.

- **GROW** their Capabilities andCreate the environment to build **SKILL.**

- **ENABLE** to achieve the Goal and Develop proficiency to **SUSTAIN** the achievements.

- **RETAIN** the Ethics and Ensure the **PRODUCTIVITY** is held High.

Pertaining to Faculty:

- The faculties need to adapt a learning style feasible for students better learning ability which can be varied based on students' academic background/ knowledge/ experience.

- Case studies should be marked for learning outcomes and teaching notes should have standardization on level/ quality/relevance of cases to be used at start of each semester.

- The faculty could bridge the gap between theory and application by bringing in live cases to the institute (for this, faculty needed to be constantly in touch with the industry or engage the Industry Expert in doing so).

- Selection of Faculties on basis of their ability to transmit new learnings, quality of industry exposure, passion for teaching and students.

- Introduce compulsory consultancy experience bybreaking their teaching assignments periodically for stints with industry/consulting focus.

- Build & Maintain a ratio of core & visiting/ industry faculty should be at least 50:50.

Pertaining to Students:

- Students need to select their career, which intern would be encouraged to be creative, critically think, collaborate and communicate their thought process on any Domain from Engineering, Science and Commerce to Management and Humanities.

- Students needed to develop qualities like passion, commitment, and integrity which is the primary requirement of the Industry. Hence the importance of networking should be stressed upon to ensure that the students move out from the Silos mode of operation to Team-Based operation.

- Students need to think like managers which can happen if there is awareness of industry/ environment. Hence the students' needs to take-up the Industry aligned Projects under the Industry Experts through Apprenticeship options to develop their leadership Skills.

- Students not only focus in improving their reading, writing and arithmetic abilities, but need to develop conceptual understanding to deliver innovative solutions for any practical problem and disseminate it at national or international level.

Scope for Vocational Education and Training (VET) and self-employment:

- Every year 5.5 million students pass out of Class X, of which 3.3 million go to Class XI, leaving 2.2 million out of the education stream. Students who drop out after Class VIII are approx. 20-21 million. Hence we have around 22 million people Available for Vocational Training – TOP Priority.

- Available formal training capacity of the country - only 2.3 million students. This leaves a gap of 18.7 million. We need the existing system to be revamped to fill up this gap.

- The proportion of persons (15-29 yrs) who received formal Vocational training is catering to around 3 % for the employed, 11% awaiting employment, and 2% for persons not in the labour force records.

- The Unemployed persons in Rural Areas is 57%, as compared to 65% in Urban Areas. But, if we look into the total SKILLED labor force availability, it is Rural Areas is 8.3%, as compared to 15.6% in Urban Areas.

- 45 million have actually registered with Employment Exchange but out of all the new employment generated, 1% employed in Government sector, 2% in Orgnised Sector and 97% in Unorganised Sector.

Major Challenges and Issues:

The Skills provided have to be accustomed to:

  o   New and changed business necessities

  o   Improving quality of education and trainings across all levels

  o   Brand Technical/Vocational education system more flexible and inclusive for sustainable growth.

Performance Issues on Vocational Education:

- o Low precedence for Vocational Education

- o Lack of trained teachers and trainers

- o Inadequate linkages with Industries

- o Absence of a National Competency Testing and Accreditation system

- o Lack of infrastructure – building, modern equipment and raw materials.

- o Inadequate or non-coverage of skills which has higheremployment potential.

- o Lack of equivalence for employment purposes and vertical mobility.

- o Inflexible curriculum.

- o Nonexistence of convergence between various agencies.

- o Deficiency of overall social recognition.

Conclusion

- • There is a need to implement an innovative and transformational approach from primary to higher education level to make the Indian educational system more relevant and competitive globally. There is also a need to free universities and colleges in both public and private sectors from political interference.

- • Integrating Vocational Training alongside regular education from the Secondary School onwards so that the students have a choice between dual apprenticeship training (part-time) or training in full-time vocational schools unlike the vocational education and training adapted in Germany & China.

- • Research cannot be improved merely by regulating universities, instead they need efforts to create enabling atmosphere for which it is imperative to grant more autonomy, better funding and new instruments to regulate work ethic Hence Establish world-class multidisciplinary research universities.

- • India must prepare a roadmap by laying out more attractive terms and contracts towards enabling quick permissions & provide free or subsidized infrastructure facilities to entice the top universities in setting up their campuses in India.

- • New initiatives like organizing Hackathon, Curriculum reform, Virtual learning (anytime anywhere), Teacher training programmes are aimed at improving quality. However, these need to be effectively implemented.

- • Since, there is an increasing gap between education and employability. Many of industrial persons complained about the quality of students coming from colleges. Mostly, students are lacking in job skills. Hence there needs to be an equal representation of Academicians & Industry specialists to be a part of the faculty team to bridge this gap.

- • To create a Central Repository for SKILLs which needs to be mapped to Academia (All students from primary to highest education level) in order to ensure that everyone possess some SKILL which is leading to Employment or Self- Employment.

- • There needs to be another Central Repository which would contain the SKILL mapping of the individuals who don't have any formal education but have the necessary SKILLs (inherited or acquired with experience). In addition, there needs to be an effective andquantifiable Training&Certification programsto be untaken by Skill India Mission to ensure ZERO Un-Skilled individual exist in India.

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