



Rs. 25.00
ISSN- 0566-2257

UNIVERSITY NEWS

A Weekly Journal of Higher Education

Association of Indian Universities

Vol. 58 • No. 13 • March 30-April 05, 2020

Sarita Sundari Rout

Higher Education in Odisha:
Reformative Steps

Priyanka Yadav and Pravendra Singh Birla

Inclusive Education: Promoting Inclusion and
Equity of Under Represented Groups

M S Kurhade

Environment and Lifestyle

Shekhar Grover

Best Strategies to Get the Most Out of an
Online Lecture

*Celebrating
90
Years of
University News*

Table No.-01: Indian Economy: Some Indicators at a Glance (as on 1st December, 2014)

	1995-96	1996-97	1997-98	1998-99	1999-00	2000-01	2001-02	2002-03	2003-04	2004-05	2005-06	2006-07	2007-08	2008-09	2009-10	2010-11	2011-12	2012-13	2013-14 (Adv. E)
India's Growth Rates in GDP (2004-2005 Prices) (Factor Cost)	7.29	7.97	4.30	6.68	8.00	4.15	5.39	3.88	7.97	7.05	9.48	9.57	9.32	6.72	8.59	8.91	6.69	4.47	4.74
Growth Indicators																			
Industrial GDP Growth (2004-05 Prices)	11.29	6.39	4.01	4.15	5.96	6.03	2.61	7.21	7.32	9.81	9.72	12.17	9.67	4.44	9.16	7.55	7.81	0.96	0.35
Agriculture & Allied Sector Growth (2004-2005 Prices)	-0.70	9.92	-2.55	6.32	2.67	-0.01	6.01	-6.60	9.05	0.18	5.14	4.16	5.80	0.09	0.81	8.60	5.02	1.42	4.71
Agricultural Sector Growth (2004-2005 Prices)	-0.98	10.40	-2.97	7.12	2.41	-0.61	6.46	-8.14	10.84	0.07	5.53	4.13	6.34	-0.27	0.41	9.54	5.34	0.91	4.93
Services Sector Growth (2004-2005 Prices)	10.11	7.53	8.93	8.28	12.05	5.07	6.61	6.74	7.89	8.28	10.91	10.06	10.27	9.98	10.50	9.67	6.57	6.96	6.78

Source : Government of India, 2014

Note : i) The agricultural GDP growth rates exclude forestry & fishing, except for 2007-08 & 2008-09 where these sectors are also included; ii) Rate of inflation is based on yearly average of WPI; The Fiscal Deficit for 2012-13 is based on the Budget 2012-13 Document; Economic Survey 2013-14 dated 09/07/2014 & CSO-30/05/2014;

* - Advance Estimate

Tiers of Higher Education in India

Education is an enabler. It can be an immunity booster especially for those vulnerable communities for whom disasters, conflicts and chaos is an everyday redemption. While crossing borders or even for seeking a living in unfamiliar locations; having had some education can be a life saver given the amount of uncertainties and mobility the world has been witnessing at present. India's case is not different from this angle.

Our education system is that of a very ancient and yet advanced one. With special reference to the tiers of higher education in the country, this can be categorized under three types for simplicity of understanding (University Grant Commission, 2018). First; central university, deemed-to-be university and institute of national importance are three categories of Higher Education Institutions (HEIs) for which a Central Act is passed for their establishment. Second, when an HEI is established due to effectiveness of an Act (either Provincial Act or State Legislature Act) in any state territory. Third, establishment of a private university is seen coming as a vibrant frontier and they are governed by either a State or Central Act and sponsored by a Company registered under Section 25 of the Indian Company Act, 1956; or a society registered under the Societies Registration Act 1860, or due to currency and prevalence of any law in enforcement for that matter. Nevertheless, all these categories of HEIs have to be assessed and accredited as per regulation norms issued in 2012 by the University Grant Commission (UGC, 2012). UGC and All India Council for Technical Education (AICTE) have established National Assessment and Accreditation Council (NAAC) and National Board of Accreditation (NBA) respectively for such accreditation purposes. The main objective is to assure quality and equity in higher education through self assessment and corrective measures for improved standards and performances.

Higher Education in Odisha's *vis a vis* India

Nevertheless, prioritization of higher education initiatives took a deeper shape with the introduction of policies way before the period of structural reforms. In the first FYP (1951-56); University Grant Commission was set up to take care of higher education funding and take measures to strengthen higher education in the country. By the end of this plan period, in 1956, five Indian Institutes of Technology (IIT) were also started.

A snapshot of the policy evolution for the higher education spectrum is illustrated in Table No- 2 .

Table No-2: Policy Evolution in Indian Education System

Sl. No.	Policy Evolution	Year
1	Submission of Draft National Education Policy by a national panel chaired by Prof. K Kasturirangan	2017 draft
2	Setting up of National Testing Agency (conducts national eligibility test)	2017 (Nov)
3	Indian Institutes of Information Technology Bill, 2014 passed by both the houses of Parliament	2014
4	Introduction of Rashtriya Uchchattar Siksha Abhiyan (RUSA)	2013
5	Amendment of the Indian Institute of Technology Act, 1961	2012
6	Operationalisation of ' Right to Education'	2010
7	Introduction of Govt of India funded 'Saakshar Bharat 'scheme for promotion of adult literacy	2009
8	Introduction of Rashtriya Madhyamik Siksha Abhiyan (RMSA)	2009
9	National Knowledge Commission Report	2005
10	Introduction of National Council of Rural Institutes (NCRI) for promotion of higher education in rural pockets	1995
11	Launching of The National Programme of Nutritional Support to Primary Education (NP-NPSE) commonly known as Mid-Day Meal Scheme (MDMS)	1995
12	Programme of Action	1992
13	The All India Council For Technical Education Act	1987
14	National Policy on Education	1986
15	Setting up of Indian Council of Social Science Research (ICSSR)	1969
16	Launch of India's First National Education Policy	1968
17	Appointment of National Education Commission	1964-1966

Table 2 contd.

Sl. No.	Policy Evolution	Year
18	Formation of the All India Council for Technical Education (AICTE)	1945
19	Constitution of the Technical Education Committee of the Central Advisory Board of Education (CABE)	1943
20	the Governor General's policy statement stressing the importance of technical education	1913
21	Issue of the Indian Education Policy Resolution	1904
22	Appointment of Indian Universities Commission	1902

Source: University Grant Commission, 2018, Indian Express, 2017, Ministry of Human Resource Development, 2009, Agarwal, 2007, AICTE, n.d., Government of India, n.d.

Policies are often polity outcomes. This is because the essence of original policies change over a period of time due to varied polity climate not only in India but found true elsewhere as well. Even institutions get perished under these circumstances. There is nothing any wrong in such evolutionary attempts to structure developmental policies. But, changed agendas with the introduction of new institutions based on the premises of established foundations set by the demolished ones is very critical for the performance and durability of latter. This is quite worrying for that change demands the perseverance and policy promises; whereas political swiftness does not allow that. This is a sort of deficit democracy.

Of all, education and various strata of it have seen tremendous change since new millennia. Higher education sector's performance evaluation suggests that decreasing quality and persisting equity challenges have shattered the education system overall worldwide; sort of "learning crisis" we have entered in many countries (World Bank, 2018: 23). India's case is not different perhaps that way. The nation has gathered worldwide attention due to consistent economic growth with a GDP of 7 percent (with fluctuations in the % due to 2008 global crisis) since 2016. India's economic growth can be ascribed to two leading drivers; huge possession of 'capital, labor and human capital' accompanied with enhanced total factor productivity (World Bank, 2018b). The demographic dividend in her disposition has been key to India's boosts in global political economy. But, regional

variations and disproportionate growth patterns impact India in many ways. This paper focuses on Odisha and its higher education performance. National Assessment Report, All India Survey on Higher Education (AISHE) suggests improved financing of higher education have resulted visible growth in institution building in the state (Table No-3 (Govt of India 2017 & 2012)).

Table No- 3: Higher Education Institutions in India & Odisha

Sl No	Type of Institutions	No. of Institutions		
		India	Odisha	In %
1	Universities	903	25	2.77
2	Central University	45	1	2.22
3	Central Open University	1	0	0.00
4	Institutes of National Importance	101	4	3.96
5	Institute under state Legislature act	5	0	0.00
6	State Public Universities	351	14	3.99
7	State Open University	14	1	7.14
8	State Private Universities	262	3	1.15
9	State Private Open Universities	1	0	0.00
10	Deemed Universities	123	2	1.63
11	Dual mode Universities	110	2	1.82
12	Colleges	39050	1042	2.67
13	Stand Alone Institutions	10011	366	3.66
14	Government colleges	8591	330	3.84
15	Private colleges	30,459	702	2.30
16	Private unaided	25,265	281	1.11
17	Private aided colleges	5194	421	8.11

Source: AISHE 2017

Some of the key performance indicators are presented at Table No-4 which compares Odisha, India and best performers among the large states of the country.

Table No-4 Higher Education-Key Performance Indicators

Sl.No.	Indicator	Odisha	India Avg.	Best among large states	
1	No. of Colleges per Lakh population	23	28	51	Telangana & Karnataka
2	Average Enrolment per college	685	698	1786	Jharkhand
3	Gross Enrolment Ratio (all)	22%	25.80%	48.60%	Tamil Nadu
4	Gross Enrolment Ratio (ST)	12.50%	15.90%	42.30%	Uttarakhand
5	Gross Enrolment Ratio (SC)	18.80%	21.80%	113.70%	Mizoram
6	Gender Parity Index(all) 18-23 Yr Group	0.85	0.97	1.28	Goa
7	Gender Parity Index(ST) 18-23 Yr Group	0.75	0.87	1.45	Kerala
8	Gender Parity Index(SC) 18-23 Yr Group	0.73	0.96	1.81	Kerala
9	Pupil- Teacher Ratio	26	25	61	Bihar
10	The average number of females per 100 males in non-teaching staff category	33	47		

Source: AISHE 2017

AISHE covers all the HEIs in the state, registered with All India Survey on Higher Education (AISHE) code in AISHE portal www.aishe.gov.in. Institutions are divided into 3 broad categories: universities, colleges and stand-alone institutions. Some of the vital findings as per AISHE 2017 report card of Odisha are presented here.

There are 25 Universities, 1042 Colleges and 366 Stand Alone Institutions listed on AISHE web portal and out of them 25 Universities, 1032 Colleges and 366 Stand Alone Institutions have responded during the survey. There is one University exclusively for women in Odisha. That apart, in addition to 1 Central University, 4 institutes of National Importance, 14 State Public Universities, 1 State Open University, 3 State Private Universities, 2 Deemed Universities (Private) and there are 2 Dual mode Universities, which offer education through distance mode also. In total, there are 16 General, 4 Technical, and one each of specialized University in the domain of agriculture, law, science, sanskrit and cultural studies.

There are 330 Government colleges, a total of 702 private colleges out of which 281 are private unaided and 421 are private aided colleges. College density, i.e. the number of colleges per lakh eligible population (population in the age group (18-23 years) is 23 as compared to All India average of 28 and average enrolment per college is 685.

In 2017-18; total enrolment in higher education has been estimated to be 1.02 million: 54.10 % boys and 45.90% girls. Gross Enrolment Ratio (GER) in Higher education in Odisha is 22.0%, which is calculated for 18-23 years of age group. GER for male population is 23.8% and for females, it is 20.1%. For Scheduled Castes, it is 18.8% and for Scheduled Tribes, it is 12.5% as compared to the national GER of 25.8%. Distance learning and those students' enrolment constitutes about 5.53% of the total enrolment in higher education.

About 78.12% of the student enrolment population is in undergraduate level programme. 2982 students are enrolled in PhD and 73,233 students are enrolled in Post Graduate courses. Interestingly, overseas students from 166 different countries were found enrolled in various HEIs in Odisha. The total numbers of foreign students enrolled in higher education are 200 out of which there are 14 PhDs, 46 PG and 140 UG students.

The Gender Parity Index (GPI) is 0.85 for all categories, 0.73 for SC category and 0.75 for ST category. Share of female students is lowest in Institutions of National Importance followed by State Private Open Universities, Deemed University-Government.

There are 36,481 teachers in various HEIs in Odisha out of which 64.23% are male and 35.77% are female. Pupil Teacher Ratio (PTR) in universities and colleges is 28 if only enrolment of students studying in regular mode is considered.

Reforms in Odisha's Higher Education System

Odisha is one of the seven low-income states (LIS) (Bihar, Chhattisgarh, Jharkhand, Madhya Pradesh, Odisha, Rajasthan, and Uttar Pradesh) in India (World Bank, 2017; Dreze & Sen, 2013). Despite several poverty reduction strategies and programmes in place, Odisha's growth trajectory has seen slow momentum due to many reasons, but remarkable shortfall in human development outcomes more importantly (Govt of Odisha, 2018a; Dreze & Sen, 2013). This is equally applicable to some of the other LIS according to research. Poor quality of education, large number of faculty vacancies and governance challenges in institutionalization of higher education management practices are thought to be some of the known pathways contributing to the diminishing performance of HEIs as well as students in the contemporary order (World Bank, 2017). To address these issues, center had launched a scheme namely *Rashtriya Uchhatar Shiksha Abhiyan* (RUSA) in 2014 to improve the quality of state universities and government colleges across India. Odisha is one of the recipients of RUSA (MHRD, 2013).

But, Odisha has been a known pioneer in many fronts of development actions in the country. Odisha's commitment to embrace growth is guided by continued political willingness to evolve policies and actions for improved educational performance (Government of Odisha, 2018a). In its attempt to introduce reforms in Higher Education; the state had constituted one higher education task force in 2010 whose main mandate was to recommend reformative measures to strengthen higher education. Odisha Higher Education Program (OHEP) is a brain child of that initiative. Let me reiterate the fact that policy can truly be a polity outcome. Later, in its continued efforts to upgrade higher education, the state negotiated a loan worth US \$ 119 million from the World Bank for all-round transformation of the higher education management system under a unique venture called Odisha Higher Education Programme for Excellence and Equity (OHEPEE) (World Bank, 2017).

OHEPEE is a performance financing model based on achievement of defined indicators under equity and excellence heads over five years time period (World Bank, 2017). A total of seventy six higher education institutions are covered in the first phase and Odisha's performance in first year of the program has been found satisfactory (Larsen, 2018).

Infrastructure upgradation in selected state universities and colleges has been the main mandate of RUSA scheme whereas OHEPEE aims to mainly intervene in quality improvement measures not only to be effected at the institutional level but also to bring in best practices in governance and management performance of the higher education sector during 2018-2022 (World Bank, 2017; MHRD, 2013). The Government of Odisha has formed a high level project steering committee for leadership and decisions to be made for OHEPEE.

Inspired by a sense of service to the reforms process in the higher education sector in India, I decided to take up this assignment with the higher education department, Odisha for the implementation of OHEPEE in 2017. But, only inspiration is not sufficient to drive a program of such intensity. Though a number of documents were available on the base information, I have always believed in first hand interactions with various stakeholders to understand a system. Fieldwork with programmatic partners and HEIs forms an integral part of building own knowledge.

In the preliminary months, I had studied almost all the institutional development plans shared by some 124 numbers of HEIs with the department. However, the actual learning was drawn from the preliminary scrutiny process of these plans somewhere in May 2017. By that time, the government decided to invite academicians from all over the country for evaluation of these plan documents. That was a milestone process wherein everyday interactions with renowned academicians largely contributed to how I see education reform today. Some of these evaluators shared their vision on how a reform process in higher education should take place.

Bringing in any reform in the academic management system is a complex task. Nevertheless, this does not limit our choice to start from scratch. Also, change management demands strong leadership and commitment. As a part of the implementation team, my experience so far is of mixed kind. I am passionate about reform-intensive change management through inclusive approaches in development practices and that is what I am involved in since 2002. So, for OHEPEE, we started from both ends; academic leadership and financial management system strengthening through trainings as well as rigorous content revision under Choice Based Credit System (CBCS) for undergraduate students.

Revision of Course Curriculum of Undergraduate Studies in Odisha

UGC had prescribed CBCS curriculum at undergraduate, postgraduate, diploma and certificate programs being conducted in universities in 2015 (UGC, 2015). Accordingly, this has been adopted by various universities in the state of Odisha since 2015. In academic year 2015- 16, it was adopted in all Autonomous colleges and from 2016-17, in all the colleges of Odisha. The main objective of promoting CBCS was to bring in flexibility, excellence, equity and efficiency in academia. This was intended to be achieved through the introduction of innovative measures both in the course content, pedagogic techniques, design with special reference to examination and evaluation practices, and overall academic pursuits. Introduction of grading system in place of ‘conventional marking system’ was a new component of the CBCS prescription (UGC, 2015). More importantly, CBCS offers a cafeteria approach wherein students have a basket of subjects available and choices can be made for their academic accomplishment under the semester system. In short, UGC recommended for a paradigm shift in the undergraduate level course curriculum in Indian universities in order for them to adapt to the contemporary market needs and internationalization standards in higher education.

One of the mandates of UGC’s approach was to introduce uniformity in the curriculum patterns all across the country through choice based credited course curricula. CBCS is being adopted by all the ten universities (out of six in first phase and five more in second phase) covered under OHEPEE in Odisha. Some of these institutions had inculcated up to 20% of change in the content of the curriculum as per their region specific needs (Government of Odisha, 2017).

Higher Education Department of State Government has the mandate to ensure implementation of processes as prescribed by UGC guidelines and other quality and equity measures relating to CBCS adoption by these universities. Accordingly, an extensive review of the status of CBCS implementation at the undergraduate level was done under the chairmanship of Minister, Higher Education on 6th November 2017. School and Mass Education Department had also participated in that meeting. The Chairman recommended to constitute five various committees (1) committee headed by Vice Chancellor, Utkal University was to suggest

on common admission test for postgraduate courses in all universities, (2) Committee headed by Vice Chancellor, Rama Devi Women’s University was to recommend on feasibility of a uniform syllabi at U.G. and P.G. level, (3) Committee under chairpersonship of Vice Chancellor, Gangadhar Meher University was to suggest reforms in examination system management including examination pattern, question paper delivery and evaluation of answer scripts, (4) Committee headed by Vice Chancellor, Fakir Mohan University was to suggest steps for timely conduct of examination, results publications and award of degree, (5) Committee under chairmanship of Joint Secretary, Higher Education Department was to suggest mechanisms to ensure capture and monitoring of On-time Graduation (OTG) (Das, 2018; Pati, 2018; Patnaik, 2018; OSHEC, 2018; Government of Odisha, 2017).

Progress and Achievements in CBCS Curriculum Revision

- a. State level review in the month of November 2017 laid foundations for convergence among universities in which all the vice chancellors had agreed for synchronization in the course curriculum, its adoption and implementation by academic year starting 2019-2020 (Government of Odisha, 2017).
- b. Among all the pillars of reforms, curriculum revision remains critical. This not only involves a large number of stakeholders but also requires serious attempts by all the respective members for review of subject-wise course content and inputs. There were several rounds of formal and informal discussions around this theme under the aegis of Odisha State Higher Education Council (OSHEC, 2018). A one-day workshop was conducted for this purpose on 23rd February, 2018 in Utkal University, Bhubaneswar. Chairpersons of Board of Studies (BoS) of all the departments from Utkal University and representative departments of other universities attended the meeting. Based on the deliberations in that meeting, Higher Education Department issued a letter to all Vice Chancellors to expedite the revision of the CBCS curriculum (Patnaik, 2018; Government of Odisha, 2018d).
- c. To take the reform process forward, all the five committees had presented their recommendations before the Education Ministry during March, 2018. It was suggested to convey a two-day

workshop inviting all the five committees to draw consensus on various recommendations and elucidate on the action plan for implementation of the recommendations. In April 2018, a two-days workshop was hosted in which Vice Chancellors of all the ten universities had participated along with Controllers of Examination. A preliminary road map was prepared on the means to implement the recommendations of the five committees (Government of Odisha, 2018c).

- d. Continuous follow up and pursuance were integral to this reform initiative as the process involved divergent stakeholders those were operating from diverse locations. To take stock of these initiatives towards reform in the higher education, all the vice chancellors from ten universities were invited to attend a one-day workshop on the 16th of August 2018 at Bhubaneswar (Government of Odisha, 2018b).
- e. All the major thirty two subjects entailing Arts, Science and Commerce branches of the under-graduation level CBCS syllabus had undergone revision by a combined BoS for decision on number of units to be taught, recommended lists of essential and reference books, lists of equipment for practical oriented subjects, training needs for new or difficult units of each subject, etc. The revised syllabuses by combined BoS for twenty eight subjects were sent for external review by eminent experts from thematic domains. This phase of the academic revision process had taken place during September till November of 2018.
- f. The status of the syllabus revision process was discussed in all Vice Chancellors conference held on 6th Dec 2018 at Bhubaneswar. It was decided to convey inter-university level combined BoS for incorporation of external reviewer's feedback as far as acceptable and possible (Government of Odisha, 2018b).
- g. Utkal University had invited all the state university BoS Chairperson to attend the inter-university BoS for final shaping of CBCS syllabus during 9th-12th January 2019 (Patnaik, 2019). The State is now ready with a model syllabus for almost all the subjects at undergraduate level higher education. Efforts to integrate coherence and congruousness in the syllabus in terms of contemporary academic standards and needs could be possible due to leadership-alliance between and among universities of the state.

An overall estimation of what we have done towards revamping the academic curriculum and content gave us food for thought for how should we go about periphery domains such as common admission tests, examination conduct, setting question banks and so on.

There are several other interventions that this programme has undertaken such as governance benchmarking and student and faculty satisfaction survey in higher education institutions about which I will talk about in the next paper. Results of these studies surely will generate new knowledge and insights for state's forward moving education planning and strategies of this programme. In this position paper, I had tried to document serious efforts of a sovereign state that has otherwise performed remarkably well in terms of embracing newness in policies and actions towards the achievement of social welfare objectives and SDGs. Whilst deteriorating education standards have been a concern worldwide and in India particularly, according to the World Development Report 2018; Odisha's commitment and polity efforts to accommodate change in educational management system cannot be overlooked by any means. Addressing persisting quality poverty in governance of educational management at various tiers has become a priority intervention area under the current programme. After all, change is a complex process and so is our role as change agents.

References

1. Agarwal., P, 2007. *From Kothari Commission to Pitroda Commission*, Economic and Political Weekly , Vol. 42, No. 7, pp. 554-557
2. All India Council for Technical Education, n.d. *History*, online, <https://www.aicte-india.org/about-us/history> (accessed 27-12-2018)
3. Das., M., 2018. *Proceedings of the Committee for timely conduct of examination, publication of results and award of degree, Reference No. 05, Dt. 15.01.2018*, Fakir Mohan University: Balasore
4. Drèze, J., & Sen, A. 2013. *An Uncertain Glory: India and its Contradictions*, University Press, Princeton: Princeton
5. Government of India, 2017. *All India Survey on Higher Education (2016-17)*, online, <http://aishe.nic.in/aishe/viewDocument.action?documentId=239> (accessed 21-03-2018)
6. Government of India, 2014. *Data-book compiled for use of Planning Commission*, online <http://>

- planningcommission.gov.in/data/datatable/data_2312/DatabookDec2014%2018.pdf (accessed 08-01-2019)
7. Government of India, 2012. *All India Survey on Higher Education (2010-11)*, online, <http://aishe.nic.in/aishe/viewDocument.action?documentId=239> (accessed 21-03-2018)
 8. Government of India n.d. Framework for Implementation of Rashtriya Madhyamik Shiksha Abhiyan, online, http://mhrd.gov.in/sites/upload_files/mhrd/files/upload_document/Framework_Final_RMSA_3.pdf (accessed 27-12-2018)
 10. Government of Odisha, 2018a. *Odisha Economic Survey 2017-18*, Planning and Convergence Department: Bhubaneswar
 11. Government of Odisha., 2018b. *Proceeding of the workshop on reforms in higher education, Letter No. 513/63, Dt. 5.9.2018, & Letter No. 590/63, Dt.15.12.2018*, Department of Higher Education: Bhubaneswar
 12. Government of Odisha., 2018c. *Proceedings of the 2 days workshop on implementation of the decisions and recommendations by the five committees on reforms in higher education, Letter No. 453/63-OSHEC, Dt. 7.4.2018*, Department of Higher Education: Bhubaneswar
 13. Government of Odisha., 2018d. *Revision of Syllabus under CBCS course curriculum, Letter No. PT1-HE-PTC-WB-0001-/2016 Dt.26.2.2018*, Department of Higher Education: Bhubaneswar
 14. Government of Odisha., 2017. *Minutes of the Meeting with the Vice Chancellors of the State Universities, Letter No. HE-PTC-MISC-0009-2016-32542/HE. Dt. 28.11.2017*, Department of Higher Education: Bhubaneswar
 15. Indian Express, 2017. *National education policy: Kasturirangan to head panel to prepare final draft*, online, <https://indianexpress.com/article/education/national-education-policy-kasturirangan-to-head-panel-to-prepare-final-draft-4723600/> (accessed 07-10-2019)
 16. Larsen, K. 2018. *Disclosable Version of the ISR - Odisha Higher Education Program for Excellence and Equity - P160331 - Sequence No: 03 (English)*, World Bank Group: Washington, D.C
 17. Ministry of Human Resource Development., (MHRD), 2013, *Rashtriya Uchchatar Shiksha Abhiyan: National Higher Education Mission*, Government of India: New Delhi
 18. Ministry of Human Resource Development.,(MHRD), 2009. *Saakshar Bharat*, online http://mhrd.gov.in/sites/upload_files/mhrd/files/upload_document/SaaksharBharat_December.pdf (accessed 07-10-2019)
 19. Ministry of Human Resource Development., n.d. *ICSSR at a glance*, online <http://icssr.org/icssr-glance> (accessed 07-10-2019)
 20. Odisha State Higher Education Council., (OSHEC). 2018. *Recommendations of the Committee on On-time Graduation (OTG), Letter No. 380-74-WB-OSHEC, Dt. 3.2.2018*, Department of Higher Education: Bhubaneswar
 21. Pati., A.K, 2018. *Minutes of the Meeting for Reforms in the Conduct of Examinations, Evaluation of Scripts and Publication of Results, Dt.13.1.2018*, Gangadhar Meher University: Sambalpur
 22. Patnaik. S.M., 2019. *Finalisation of uniform UG syllabus, Letter No. VC-02-2019, Dt. 03.01.2019*, Utkal University: Bhubaneswar
 23. Patnaik. S.M ., 2018. *Uniformity of UG Syllabus, Letter No. EC-IV-VC-84-2018 Dt. 20.6.2018*, Utkal University: Bhubaneswar
 24. University Grant Commission, 2018. *University and Higher Education*, online, <http://mhrd.gov.in/university-and-higher-education> (accessed 27-12-2018)
 25. University Grants Commission., 2015. *UGC Guidelines on Adoption of Choice based Credit System*, New Delhi
 26. University Grants Commission. (n.d.). *Minimum Course Curriculum for Undergraduate Courses under Choice based Credit System*, New Delhi
 27. World Bank, 2018a. *World Development Report 2018: Learning to Realise Education's Promise*, World Bank: Washington DC
 28. World Bank, 2018b. *India Development Update: India's Growth Story*, World Bank: New Delhi
 29. World Bank. 2017. *Program Appraisal Document: Odisha Higher Education Program For Excellence And Equity, Report No. 113124-In*, online <http://documents.worldbank.org/curated/en/533631504404081297/pdf/India-Education-PAD-08142017.pdf> (accessed 14-01-2019) ■

Environment and Lifestyle

MS Kurhade*

21st century illiterate is one who cannot unlearn the wrong things that he has learnt and relearn the right things. A healthy mind is an insurance against diseases and is a tool in reversing disease processes. Our mind is at work in every disease situation from common cold to cancer. In the latter case the cancer cells, “aim less, jobless wandering cells” that have mutated to ‘survive’ a holistic environment in our bodies urgently need a conducive environment to remodel and survive.

Now one can understand the significance of the need for a healthy mind to keep us physically also healthy. For the lay person what should be the meaning of a healthy mind?

Healthy mind is a mind filled with “enthusiasm to work and enthusiasm to be compassionate”. This all-encompassing definition covers all parts of health. The words are chosen carefully. Enthusiasm is not just wanting to do a thing but a compulsive motivation to do that. Enthusiasm to work is the love for work-want to work and not have to work! Similarly, enthusiasm to be compassionate is a compulsive urge to be of some use to someone almost always, nay to be universally compassionate. If one follows these two mottos in life there is no room for any negative thoughts in mind like hatred, jealousy, superego, anger, pride and greed. The latter are the real risk factors for all major killer diseases!

Skepticism is the highest of duties; blind faith the one unpardonable sin – (Thomas Huxley). If one is healthy and well at a given point in time, it is just chance; if one, on the other hand is ill and suffering is also a chance! No science can predict either of those events with any degree of certainty! Doctors have been predicting the unpredictable future of patients for generations based on some phenotypic features called risk factors. A very large, prospective study

Principal, D.T.S.S. College of Law, Malad (E), Mumbai-400097. & Director, SanskarSarjan Education Society, Malad (E), Mumbai-400097. & President, Association of Non-Government Colleges, Mumbai. principal@sanskarsarjan.org

followed up for 25 long years has shown that there are no “risk factors” as far as human diseases are concerned. The said MoFFIT study did further show that the so called risk factors could be controlled by drugs or surgery but the risk, if it is here, still works itself successfully!

Mind is our consciousness—the canvas on which our thoughts are projected. Consciousness is fundamental and all else will have to rise from consciousness wrote Max Planck! Matter and energy being the two faces of the same coin, the human body becomes an illusion of the human mind. In view of this new scientific awareness the real environment for our healthy living or even for recovery from any illness should be the human mind.

In the true sense of the word the real environment for the human wellness and illness is the human mind. Rest of the conventionally acclaimed risk factors are not the real environment although they contribute to the final outcome.

Like people who search for the God inside mud and stone structures, scientists have been searching for the real environment outside this real environment of the human mind in BP, sugar, cholesterol, tummy girth etc. Our future generation at least should have the benefit of this truth. We have to bring forth a generation of our youth with a healthy mind. In that direction real education takes the cake. Today education is aimed at making a wealthy career for the child. That is not education. The real education is to make a healthy mind out of every child and not just a wealthy career. If every Indian child develops a healthy mind with enthusiasm to work and enthusiasm to be compassionate, all our society ills like terrorism, laziness, crime, rape etc. will vanish without any effort on our part. Can we hope that the powers that be would change the base of education policy which would lay the foundation for a healthy mind in every child?

We have been depending too much on reductionist science to believe that health and diseases are basically

controlled by our genes. This myth has now been blown apart and our genes, if anything has very little to do with our evolution and even our existence here. That apart, we now know that we can even change our genetic pattern if needed, by our environment. Our life style changes for the better can change even our genetic pattern. This has been recently shown in the case of killer disease of old age.

With the onset of quantum wisdom, we have now been able to comprehend much more than what we could grasp with our five senses. Quantum world view opens up a new vista in human physiology where we can get a wider holographic view of human life at a given point in time. So called life style management also gets a new meaning in quantum world view. In the old Einstein- Newtonian world view lifestyle changes are simply work, sleep, food, exercise, stress reduction, the physical environments like air, water, earth, weather etc. in addition to the medical money spinners like hypertension, diabetes, obesity etc. Although this has made a dent in the morbidity pattern, they did not make a huge difference. In addition the powerful drugs used to control the risk factors have brought in their wake many adverse drug reactions, some of them being even fatal.

In the new world view human mind assumes special significance. Reductionist science does not take the mind into considerations seriously although some fringe studies did show some mental altered states like depression and frustration leading to serious illnesses. The main line medicine is yet to give importance to the mind as it is not sure where the mind is? The Canadian neurosurgeon Wilder Penfield in his elaborate reductionist studies put the mind inside the brain but realized his folly and in 1971 admitted that the mind cannot be confined to a small organ like the brain.

Human body is just the human mind itself. Infact, human body is an illusion of the human mind. So it is not what you eat that kills you but, it is what eats you (your negative thoughts) that kill you. Please avoid hatred, anger, jealousy, greed and frustration like poison. Universal compassion, an in built safety valve for man, is good food for cancer. Here we come closer to our ancient wisdom of *paropakaaraarthamidamshareeram*. You are born

here for the benefit of society. That gives meaning to life. Finding a meaning to life is said to be the best insurance against many ills according to Dr. Victor Frenkle in his book; *In Search of Meaning*.

If the body is slightly alkaline as it usually is with a pH of 7.4 or so it is good for cell survival. Acid environment is fatal for the cells. Naturally vegetarian diet is the ideal to keep it that way-less cooking adds to the advantage. Vegetable juices are very good food at all times. Fruits are also good. Millets seem to help a lot instead of the usual cereal diet. Sugar is poison; avoid it like a poisonous snake. Meat especially cooked meat, produces an acid environment inside for the cells to get suffocated to live forcing them to mutate for survival. Dairy is also not a good thing. Fresh salads of mixed vegetables could replace much of our usual cooked meal.

It is logical that we better change the environment to survive. Cells feel better in oxygen rich environment. *Pranaayaama* of the right variety which makes the body get better oxygenation is the ideal thing to follow on a daily basis for healthy people and on extended time periods once or twice daily.

Work, they say is worship. Work rejuvenates the body cells and also makes one forget the fear of disease which is the killer many a time. As long as one can one has to work to keep oneself busy. Never get to bed as it is very difficult to get out of it.

Sufficient sleep, up to seven-eight hours, will be good for cells to recover. Natural sleep is better than drug induced one.

In my concept spirituality is just sharing and caring. However, it has been shown in many disease managements that to have faith in something superhuman that runs the destiny of this world would be better for recovery and to avoid precocious death. Materialism has an end when the going gets tough. Frustration sets in followed by depression. To believe in something that runs this world would make one humble. Humility gives a boost to our immune system. Prayers, even intercessory prayer, have been shown to be good for quick recovery.

Commonsense measures listed above would go a long way to mitigate suffering.

A pandemic like the novel corona virus does not merely change the way we view our health, it changes many more fundamental assumptions that we make about our lives and ask confounding questions about things that we haven't needed to think about for a long time.

Public health experts are unanimous not only on the need to take every possible precaution against corona virus- both as individuals and as communities but also on the need to avoid panic and irrational behavior.

Much of the fear that has grabbed the world stems from the fear of the unknown, and the fact that there is no cure yet for the corona virus. Still, even a disease like TB, which spreads through the air but has a cure, continues to pose threat to the health system, killing close to 4.5 Lakh every year in India.

But to reiterate what we said at the outset; None of this should lull people or governments into complacency or a state of denial. Given how contagious the virus, it could spiral into a global catastrophe if its not fought on every front.

Environmental issues are one of the primary causes of death, health issues and long term livelihood impact for India.

Floods are a significant environmental issue for India. It causes soil erosion, destruction of wetlands and wide migration of solid wastes.

Major environmental issues are forests and agricultural degradation of land resource depletion (such as water, mineral, forest, sand and rocks), environmental degradation, public health, loss of biodiversity, loss of resilience in ecosystems, livelihood security for the poor.

The major sources of pollution in India include the rapid burning of fuel wood and biomass such as dried waste from livestock as the primary source of energy, lack of organized garbage and waste removal services, lack of sewage treatment operations, lack of flood control and monsoon water drainage system, diversion of consumes waste into rivers, cremation practices near major rivers, government mandated protection of highly polluting old public transport, and continued operation by Indian government of

government owned, high emission plants built between 1950 and 1980.

Air pollution, poor management of waste, growing water scarcity, falling ground water tables, water pollution, preservation and quality of forests, biodiversity loss, and land / soil degradation are some of the major environmental issues India faces today.

India's population growth adds pressure to environmental issues and its resources. Rapid urbanization has caused a buildup of heavy metals in the soil and these metals are being ingested through contaminated vegetables. Heavy metals are hazardous to people's health and are known as carcinogens.

There is a long history of study and debate about the interaction between population growth and the environment. There is no question that population growth may contribute to environmental degradation, its effects can be modified by economic growth and modern technology you can't change the population, but you can change what the population emits into the environment.

Noise pollution is the disturbing or excessive noise that may harm the activity or balance of human or animal life. Noise-wise India can be termed as the most polluted country in the world. The source of most outdoor noise worldwide is mainly caused by machines and transportation systems, motor vehicles, aircraft and trains. In India the outdoor noise is also caused by loud music during festival seasons. Poor urban planning may give rise to noise pollution, since side-by side industrial and residential buildings can result in noise pollution in the residential areas.

Indoor noise can be caused by machines, building activities, and music performances, especially in some workplaces.

High noise levels can contribute to cardiovascular effects in humans and an increased incidence of coronary artery disease.

Many of the issues we face all tie back into one central concern-public health, pollution, water scarcity and overpopulation all present a clear threat to public health. Nearly one out of every four deaths each year are directly caused by unhealthy environments, according to the WHO.

The health and wellness of human beings is an important issue to watch. What people eat, drink and breathe in play a significant role in their wellness. Polluted air and water are a mounting crisis we need to address.

Unfortunately, the climate change debate continues despite decades of research on the subject. Climate change is here and it is happening. Nine-seven percent scientists who study the climate agree that greenhouse gases both natural and those created by humans, are the main cause. Global temperatures 'are climbing, ice cap' are melting, and droughts wildfires, and super hurricanes are tearing their way across the landscape.

Greenhouse gases are a leading cause of climate change specifically those emitted from the human population. This has an impact on habitats, agriculture, the ocean and natural disasters.

The best way to reduce climate change is to build sustainably using renewable energy sources such as solar and wind power will assist the fight against climate change. Limiting waste and pollution will help preserve the environment. The consequences of these environmental issues cannot be ignored. Give the planet a win by making sustainable choices and supporting the right causes.

What the current crises has done is to bring us face to face with our thinness of our knowledge and the fragility of our way of life. We have created such intricate structure that is poised precariously on a set of assumption that we have become blind to. It takes very little, just a tiny microbe to make us rethink everything all over again. This pandemic is an opportunity for us to set a new course for ourselves.

Most people are now well aware that environmental pollution is definitely detrimental to human health directly as well as indirectly owing to its adverse effects on animal, marine and vegetable life.

Atmospheric pollution, resulting from vehicular and industrial emissions, is a constant source of irritation to the eyes, and is primarily responsible for various eye ailments. In addition, the carbon monoxide present in such emissions when absorbed in large quantities inactivates the hemoglobin in the

blood, which is very vital for human health, resulting in serious complications.

Excessive noise level generated by vehicles, industries, sound magnifying instruments and machinery give rise to noise pollution, which creates severe mental tension, causing headaches, irritation and other related complications.

Medical studies have revealed that due to carbon monoxide, nitrous oxide and Sulphur-di-oxide emitted into the atmosphere an oily coating gradually develops in the lungs and this can play havoc with human health.

Pesticides, fungicides and other artificial chemical fertilizers, are liberally used in the production of grains, vegetable and other agricultural products. These are absorbed by the plants and are ultimately found in traces in the final edible products, which when ingested cause recurring stomach and digestive disorders.

Chemical substances which escape into the atmosphere due to inadequate safety standards cause skin dryness and burning sensation to people.

Thus, it is evident that environmental pollution is very harmful to physical health in many different forms and ways. In addition to environmental pollution, mental pollution gives rise to acute mental tension, worry, anxiety and phobia. Medical studies have revealed that most of the diseases, such as blood pressure, hyperacidity and peptic ulcer are due to psychosomatic factors.

Hence, it is essential to safeguard ourselves from both environmental as well as mental pollution. Whereas environmental pollution creates only physical health problems, mental pollution is harmful to physical, mental, social and spiritual health of the individual, ultimately leading to degeneration of society.

The types of thoughts occupying the mind determine the mental state of individual. These mental thought vibrations are constantly being projected into the environment surrounding the individual. Any other individual coming in close proximity of such emanations is also influenced positively or negatively by them, since similar thought process tend to be

stimulated in the latter's mind, particularly if the latter's has a weaker personality than the former.

When any individual enters a tense atmosphere, he experiences tenseness whereas when the same individual enters a peaceful atmosphere, he begins to feel peaceful. Thus it can be said that the quality of our thoughts determine the environment to mind full of divine virtues, peace, happiness and love can be compared to a tree abounding with leaves, blossoming with flowers and blooming with fruits, providing shade, solace, and substance to everyone associated with it. The three major effects of environmental pollution are:

- Depletion in the ozone layers.
- Acid-rain.
- The green-house effect.

Scientific studies have revealed that the ozone layer which encompasses the earth and protects life on earth from harmful solar ultra-violet radiation, is gradually depleting. The depletion of the ozone layer is primarily due to leakage of freons used in air conditioners, refrigerators, aerosol can etc. When these freon escape into the atmosphere they interact with ozone and reduce it. Medical studies have shown that cases of skin cancer and other related diseases are on the increase. In addition to human and animal life, vegetable life is also adversely affected by this ultra-violet radiation.

With increase in industries, copious emission of industrial smoke is polluting the atmosphere at an ever-increasing rate. Nitrous oxide and Sulphur-di-oxide present in such emissions are formed into nitric acid and sulphuric acid after interacting with the moisture and water vapor in the atmosphere. When this precipitate, they cause acid-rain. Marine and vegetable life are seriously affected by acid-rain. About 40,000 lakes in different parts of the world have become devoid of marine life because of these phenomena. Similarly, thousands of square kilometers of forests have been adversely affected by acid-rain.

Green-house effect is the phenomena attributed to the rise in global temperature due to increase in carbon-di-oxide content in the earth's atmosphere. The increase in carbon-di-oxide is due to various reasons. The primary ones being the use of fossil fuel,

widespread deforestation and an increase in world population. A long-term effect of this is gradual rise in sea-level due to melting of polar ice caps. Scientists are of the opinion that by the middle of next century or even earlier, sea level will rise to dangerous levels, thus rendering the habitations situated in the proximity of oceans uninhabitable.

Today, there is a growing concern in the world about ever increasing pollution of the environment. As people are slowly becoming aware of a definite threat to their very existence as a consequence of environmental pollution, world bodies are making concerted endeavors to check the growing menace.

There are various sources of environmental pollution such as vehicles, industries, pesticides, deforestation etc. These include air pollution by vehicles and industries, water pollution by industrial waste and residential sewage, soil pollution by dumping garbage, radiation pollution by leakage from nuclear plants, noise pollution by supersonic air jets and heavy engineering units. There are other modes of pollution also.

However the most significant pollution, which is the seed of all other types of pollution, is mental pollution. Every verbal directive and physical action is essentially preceded by thoughts originating in the mind. A polluted mind conceives polluted thoughts, which are then translated into polluted and contaminated words and actions.

Today's student is going to become an empowered citizen of India tomorrow. Therefore, we should keep striving in orders to fuel the spark of environment awareness in our students. Even a single positive stride of ours has the potential to bring hope to our tomorrow. There is no doubt that climate change is a grave threat to all of us. That is why initiative taken on the part of each one of us is going to be all the more important. We can achieve a mammoth change even by adopting the simplest of measures such as saving water and electricity in our homes and taking to using cloth bags instead of polythene ones. We must develop a team spirit to conserve our nature and keep it rising even more. Let us come together and provide our Mother Earth, the protection she so deserves. The widening scope of public awareness through various programmes undertaken by the Maharashtra

Pollution Control Board is certainly working towards guiding the cause of nature conservation in the right direction.

The march towards ever growing benefits of scientific revolution has brought with itself issues of environment and pollution which have now started to acquire grave proportions. Behind our blissful ignorance, the calamities such as climate change and global warming has ensnared the entire world. Annually changing cycle of seasons, uneven rainfall, severe summers, hail storms, deluges and cyclones have seriously hampered the economics of each country. Being an agro-based country, India suffered even more. However, even though the climate changes or global warming pose a colossal challenge before us, we can certainly take out its edge by adopting active and positive approach. The current hour is demanding that we adopt a national spirit and take an affirmative step towards environmental issues in order to bring about a faithful social change.

The rising temperatures are ruining the delicate balance of our environment. Each year is bringing us closer to this reality with increasing severity. For an agro-based economy such as India, this means facing myriad critical problems, if we wish to defeat the environment crisis, we need to keep in our mind that it is our home from where we must begin to build a solution from. That is why it has now become unavoidable to adopt an environment friendly lifestyle.

Aditya Thackeray, as Minister for Environment, Maharashtra State came with the idea of administering an oath to the students from all schools across the State to protect the environment under an initiative called welcome the Republic Day with an object of protecting the flourishing environment. The oath contained proclamations such as:

'I shall be careful not to cause any degradation of environment due to my daily life style',

'I shall always use a cloth bag instead of a plastic one',

'I shall use each drop of water as it is a precious resource',

'I shall segregate wet and dry waste from my home and turn the wet waste into organic fertilizer.'

'I shall be careful not to pollute the natural water resources, around me such as wells, ponds and rivers',

'I shall reduce usages of electricity to the minimum possible degree',

'I shall utilize natural resources economically and keep my surroundings clean and beautiful',

'I shall protect the animals, birds, aquatic animals living in their natural habitat and their bio-diversity',

'I shall plant at least one tree on my each birthday for the protection of rich environment and nurture it regularly',

'I am resolving to live an environment friendly life from today.'

The changing climate is manipulating the entire cycle of seasons. This is compelling the world to brave calamities such as uneven rains deluges and famines. The present hour is underlying the acute necessity of coming together as human race to protect our environment. The oath to conserve our flourishing environment which should be administered to our students shall definitely be a guiding light in the future. But we also need to keep endeavoring towards stoking the cinders of awareness in the minds of people so that they feel constantly inspired to give their best to the cause.

Our normal biological age can most definitely be impeded by such things as excessive stress, drug abuse, lack of exercise, wrong diet etc. One must try to live a full life-mentally, physically, socially and emotionally. Our aim should be to stay biologically and functionally young. Obviously, the genes we inherit play a part in our efforts to attain a long life and we cannot choose them. But we can choose the kind of lifestyle we lead, and a good time to make that choice is now.

The world is populated by those who measure success through bank balance, BMIs, waistlines or their social media following. Have you questioned if these are enough to guarantee your well-being? As we are regularly and repeatedly discovering health is no longer a routine blood test, a clean chit from your GP or moderate body weight. The dangers of stress-

induced anxiety and depression are as real for you as it is for any world-famous celebrity. This is a clear indication that money, status or fame is not assurances of a happily ever-after.

We do not consider mental health as a parameter of our health index. There is no sufficient attention given to the importance of mental/health as much it is to physical health. Our priority should shift towards gaining mental equilibrium to enable better living. To rectify this situation, we must begin to make changes in our day to day lives which after repeated practice become habits that can save us from the heartbreak of a defeated self. First and foremost, discipline is a trait that should be incorporated in every aspect of life.

Our sleeping, eating and, waking patterns should be scheduled to bring out optimum self. Mental health can be brought to balance through *Mann Dhyan* or meditation of the mind. In this technique, you are to nourish your thoughts, prepare positive affirmations for yourself and carry them into your meditative practice to reduce and remove negative thinking.

Another method would be to resort to counseling. Clear up your energies by spending time with a mentor or counselor who can open up space inside you by draining you of your cluttered state of emotions. Expand your mind and consciousness by getting more connected to positive people, positive activities and a healthier way of thinking.

Deep down, we all know that there is a link between what we think and our health. So, our body is deeply interconnected with our thoughts, emotions and our spiritual self. Illness is often caused when our body experiences the effect of unfulfilled expectations or desires. In life, we often go through unpleasant or traumatic experiences. The resultant feelings of anger, hatred, guilt, hopelessness or resentment manifest themselves in the form of one or other physical disorder.

When one ponders over the multitude of risk factors in and around us in this hostile world, one wonders as to how we are alive at all, Medical claptrap informs us day in and day out about the multitude of potions – chemicals, drugs, surgeries, special foods, tonics etc. to keep us alive. The truth is that most, if

not all of those heavily advertised items damage the system further than helping us. The truth is that life is a complicated system of individual cell function in the body in an interdependent manner to keep us alive and healthy. If the ten thousand odd proteins that are present inside each one of the trillions of cells in our bodies do not work well we have disease states. For recovery from any illness, body cells will have to function normally again.

Our approach in the “so called” evidence based modern medicine is to try and correct those changes (not knowing what they are) in disease states using chemicals or surgery. As a quick-fix, apparently, they help some people sometimes but all of them damage some part of the human system almost always sometimes as late as five years after the event.

What is the remedy? We must get to know the true physiology of cell function and try and see how we could restore that in the unlikely event of disease in a more natural way rather than inflicting chemical and surgical damage to the cells. Wherever possible we need to arrange on urgent marriage between the beneficial remedies in modern medicine “like the excellent emergency care methods, brilliant surgical successes, time tested and harmless pharmaceuticals as also the newer life style changes with the best and scientifically authenticated multitude of methods in many other systems of medicine into a judicious integrated system of medical care that is inexpensive, safe and effective under all circumstances. We need a holistic approach to human, nay, all problems of this world. *And all the loveliest things there be come simply, so it seems to me* -(Edna St.Vincent Millay).

As we all mellow and mature and gather knowledge it can only humble us as one realizes what we know is only like a grain of sand on the banks of a huge ocean.

Life on earth has evolved over billions of years and modern science is like a curious indulgent infant constantly trying to unravel its myths and mysteries.

■

Inclusive Education: Promoting Inclusion and Equity of Under Represented Groups

Priyanka Yadav* and Pravendra Singh Birla**

The social justice and equality in any society can be achieved through education which can provide every citizen the opportunity to contribute in the development of nation according to their own competencies. But the enduring problem is that majority of citizens remains deprived from the equal opportunities of education as they face discrimination that might be on the basis of caste, gender, social and economic background. This draws them back in contributing in the progress of nation. Such individuals were defined as underrepresented groups in NPE, 2019. They are categorized on the basis of gender identities, socio-cultural identities, special needs and socio-economic conditions. The decline in enrolment of students belonging to these underrepresented groups has been reported. There is a need to identify the barriers faced by these underrepresented groups in order to promote their inclusive and equal participation at all levels of education, so that they can contribute in the growth of the nation. This needs an inclusive education system to promote inclusion and equity among these underrepresented groups. The term inclusion refers to an approach towards educating children with different abilities and background within the same roof. The duty of the nation is to shape the education system in such a way so that all children get equal opportunity to learn and develop their full potentials without letting their circumstances of birth and background to intervene. The present article will focus concept of inclusive education, Special Education Zones (SEZs), barriers face by these underrepresented groups, measures to promote their inclusion and equity in education, vision 2030 for inclusive education, preparation of teachers as significant promoters of equity and inclusion followed by the conclusion.

The term inclusion refers to an approach where students with special need spend most of their time with non-disabled students. Inclusive classrooms

*UGC-Junior Research Fellow, Faculty of Education, Raj Rishi Bhartrihari Matsya University, Alwar – 301001. Rajasthan. Email: ypriyanka781@gmail.com

**M.Phil., Faculty of Education Dayalbagh Educational Institute (Deemed University), Dayalbagh, Agra – 282005. Uttar Pradesh. Email: pravendrabirla@yahoo.com

might contain several students with special needs who are mainstreamed full time into the general classroom, or one or two students who spend time each day in a special education classroom as well as a general classroom. As Yell (2010) clarified that the terms least restrictive environment, inclusion, and mainstreaming are often used interchangeably. They are not, however, synonymous concepts. Least restrictive environment refers to the IDEA's (1990, 2004) mandate that students with disabilities should be educated to the maximum extent appropriate with peers without disabilities. The Least Restrictive Environment mandate ensures that schools educate students with disabilities in integrated settings, alongside students without disabilities, to the maximum extent. Least restrictive environment is not a particular setting (Yell, 2010). The general population in India is still struggling with the awareness on the needs and services of students with disabilities. Adding to the legacy of colonialism, 80% of India's population lives on less than about Rs. 100, or two dollars a day.

Even when adjusting for purchasing power parity, this amount puts hundreds of millions of people below the global poverty line. Then, people with disabilities need to account for the conversion handicap; a term coined by Amartya Sen. The 'conversion handicap' is when people with disabilities derive a lower level of welfare from a given level of income than the rest of the population, due to additional costs incurred in converting income into well-being. In India, services for individual with special needs are still provided in segregated settings, i.e., special schools, special programs by non-government organization (NGO) etc. Educators, researchers, and even movie makers are attempting to develop a public awareness concerning the spectrum of services for students with special needs. In India, with an understanding of the importance of including children with disabilities in mainstream society, individual with disabilities can achieve more functional independence that can promote productive living. According to Balasubramanian (2012), the awareness on inclusive education in schools throughout the country is still at an infancy stage, educational institutions are somewhat skeptical about having both normal and special children studying in the same classroom. And in circumstances, where a former excluded child is given

admission into a mainstream classroom, the outcome of the action is questionable. Currently, many children with disabilities are instructed in separate educational settings, but professionals and parents are calling for more equitable inclusive education for these students. It is imperative that inclusion in schools (including students with disabilities with non-disabled peers in educational settings) takes place to promote equity of students with disabilities in society's settings. To this end, Indian schools should work collaboratively with parents and other community leaders to prepare productive citizens. This can generate an understanding of an inclusive society that can support the social value of equity and to minimize the stigma of disability for students who are served in separate special schools. Since school is one of the main contributors to the society, it is important to develop a knowledge, and understanding of the existence of the term —Inclusion or inclusive education in Indian society.

Concept of Inclusive Education

The principle of inclusive education was adopted at the "World Conference on Special Needs Education: Access and Quality" (Salamanca Statement, Spain 1994) and was restated at the World Education Forum (Dakar, Senegal 2000). The Statement solicits governments to give the highest priority to making education systems inclusive and adopt the principle of inclusive education as a matter of policy. The idea of inclusion is further supported by the United Nation's Standard Rules on Equalization of Opportunities for Person with Disability Proclaiming Participation and equality for all. Inclusive Education is defined as a process of addressing the diverse needs of all learners by reducing barriers to and within the learning environment. It means attending the age appropriate class of the child's local school, with individually tailored support (UNICEF 2007). Inclusive education is a process of strengthening the capacity of the education system to reach out to all learners. At the Jometin World Conference (1990) in Thailand, the goals for 'Education for All' were set and it was proclaimed that every person (child, youth and adult) shall be able to benefit from educational opportunities which would meet their basic learning needs. Inclusion is an educational approach and philosophy that provides all students greater opportunities for academic and social achievement. This includes opportunities to participate in the full range of social, recreational, arts, sports, music, day care and after school care, extra-curricular, faith based, and all other activities.

In India, National Council of Educational Research and Training (NCERT) joined hands with UNICEF and launched 'Project Integrated Education for Disabled Children' (PIED) in the year 1987, to strengthen the integration of learners with disabilities into regular schools. In recent years, the concept of inclusive education has been broadened to encompass not only students with disabilities, but also all students who may be disadvantaged. This broader understanding of curriculum has paved the way for developing the National Curriculum Framework (NCF, 2005) that reiterates the importance of including and retaining all children in school through a programme that reaffirms the value of each child and enables all children to experience dignity and the confidence to learn.

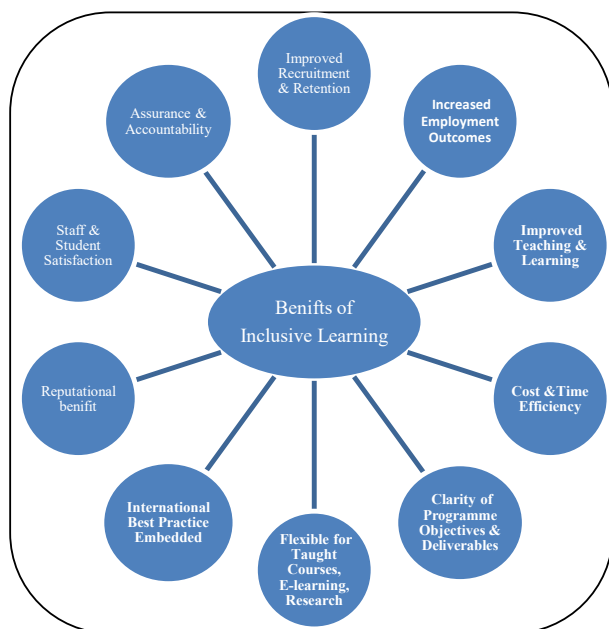
Need and Importance of Inclusive Education

There have been efforts internationally to include children with disabilities in the educational mainstream. In order to achieve truly inclusive education, we need to think about and incorporate children with special needs into regular schools. Especially, because these kids face some sort of barriers to learning and participation in the classroom. As general education classrooms include more and more diverse students, teachers realize the value of accepting each student as unique. In effective inclusive programs, teachers adapt activities to include all the students, even though their individual goals may be different. We have learned that inclusive education is a better way to help all students succeed. Researches show that most students learn and perform better when exposed to the richness of the general education curriculum. The growing body of research has shown that children do better academically when in inclusive settings and inclusion provides opportunities to develop relationships. Some of the benefits include: friendships, social skills, personal principles, comfort level with people who have special needs, and caring classroom environments.

The most important function of friendships is to make people feel cared for, loved, and safe. In an inclusive educational setting, low-achieving students are able to get extra help even though they did not qualify for special education. Classmates of students with disabilities also experience growth in social cognition, often can become more aware of the needs of others in inclusive classrooms. An interesting side effect is that these parents report that they also feel more comfortable with people with special needs because of their children's experiences. Students with

disabilities can create long-lasting friendships that would not be otherwise possible, and these friendships can give them the skills to navigate social relationships later on in life.

Figure 1: Benefits of an Inclusive approach to Teaching, Learning, and Assessment



Inclusive Education for Whole of India

As per the Census 2011, out of over 120 crore people, 2.2 per cent in India are disabled. In absolute terms, this implies that over 2.68 crore people live with one form of disability or another. It is significant to note that out of these people, 66 lakh children are in the age group 5-19 years. These numbers are most likely much higher, it is generally accepted that surveys all over the world grossly undercount the actual number of disabled people. The World Report on Disability jointly produced by the World Health Organization and the World Bank in 2011 estimated that about 15 percent of the global populations live with disability. Whatever the actual number of the disabled, they constitute a significant resource that can and should contribute to the social, economic and political life of the nation. Children with or without disabilities have the right to a quality education, no matter what special needs they might have. Education is the prime tool that equips a child to meet the challenges of life. Children with disabilities need this even more to supplement their different talents. Indeed, disability need not be an impediment to achievement.

Inclusive education is a model of education in which children with disabilities spend all or most of their time in school with children without special needs. Fully inclusive schools do not separate ‘general education’ and ‘special education’ programmes. Such schools are structured so that all students learn and grow together. Disability exacerbates existing vulnerabilities arising from social and economic inequities such as poverty and gender, lack of access to services, social stigma and so on. Universal access to inclusive education has the potential to shift society towards a more just and equitable future.

Inclusive education allows children with disabilities to develop friendships with peers and feel less isolated. Children who are placed in standard classroom environment generally have higher self-esteem than children who are isolated in special needs programmes. Policy-makers and civil society need to recognize that no school has the right to deny high quality education to children and families who want the best for their child simply because he/she has a disability. A common misconception that needs to be dispelled is that the presence of disabled children in classrooms impedes the learning of non-special needs children. In fact, children without disabilities in inclusive schools get an opportunity to receive their own education in a non-discriminatory environment and develop a more accepting and wholesome perspective.

Although much progress has been made in the education sector, India faces immense challenges in addressing educational needs of children with disabilities. In the age group 5 to 19 years, 28 per cent disabled girls have never attended an educational institution. The figure for boys at 26 per cent is only marginally better. Only 16 per cent of the disabled male population and nine per cent of the disabled female population has matrix/secondary education. Not surprisingly, only nine per cent of males and three per cent of females with disability are graduates.

A mission approach is needed to make the provisions for inclusive education in the Right to Education Act 2009 and Rights of Persons with Disabilities Act 2016 universally available in all educational institutions - public as well as private. Educational institutions in the private and NGO sector have made a beginning in introducing inclusive education. However, most of these schools are in urban settings. The need of the hour is to learn from these pioneering efforts to make inclusive education

a reality in public sector institutions at scale. As the country strengthens the education sector further, the universalisation of inclusive education in the public and private sectors must become a foundational principle of the nation's education sector.

Objective of Equitable and Inclusive Education: A Vision of 2030

The main objective of this vision is *to achieve an inclusive and equitable education system so that all children have equal opportunity to learn and thrive, and so that participation and learning outcomes are equalized across all genders and social categories by 2030*. Education is the single greatest tool for achieving social justice and equality. Inclusive and equitable education - while indeed an essential goal in its own right - is also critical to achieving an inclusive and equitable society in which every citizen has the opportunity to dream, thrive, and contribute to the nation. Unfortunately, prejudice and bias, based on gender, social and economic status, and special needs, among other factors, often affect people's capacity to benefit from the education system, compounding social cleavages that hold the nation back from growth, innovation, and progress. This Policy aims to shape an education system that benefits all of India's children so that no child loses any opportunity to learn and excel because of the circumstances of birth or background. The Indian education system and successive government policies have made steady progress towards bridging gender and social category gaps in all levels of school education. However, large disparities still remain, especially at the secondary level, particularly for groups that have been historically underrepresented in education. Underrepresented Group(s) URGs in education can be broadly categorized into those given gender identities (including women and transgender individuals), socio-cultural identities (such as SC, ST, OBCs, Muslims, migrant communities), special needs (such as learning disabilities), and socio-economic conditions (such as the urban poor). While overall enrolments in schools decline steadily from Grade 1 to Grade 12 - a problem which must be addressed across the country this decline in enrolments is considerably more pronounced for many of these URG. According to Unified District Information System for Education (U-DISE 2016-17) data, about 19.6% of students belong to SC at the primary school level, but this fraction falls to 17.3% at the higher secondary level. These enrolment drop-offs are even more severe for ST students (10.6% to 6.8%), Muslim students (15% to

7.9%), and differently-abled children (1.1% to 0.25%), with even greater declines for female students within each of these URG. The declines in URGs enrolment in higher education are even steeper. These statistics make it clear that inequities affect children already in primary school. Actions must be taken urgently to understand the barriers students face and to implement proactive measures ensuring inclusive and equitable participation of children from URGs across all levels of school education, beginning in a child's early years. This will, in particular, also help ensure that all children will be a part of an inclusive and equitable society when they grow up, which in turn will raise the peace, harmony, and productivity of the nation.

Causes of Exclusion and Discrimination in Education

A first basic cause for the exclusion of URGs from the education system is that children from URGs often suffer from a lack of access to schools, especially quality schools. Despite the dramatic leap in access to schooling over the past decade, there remain very serious barriers to access to early childhood and secondary education - especially for areas with large populations from educationally underrepresented groups. However, the problem does not end at access. Even when a child from a URGs does succeed in accessing and entering a quality school, a number of other factors often come into play that create barriers to learning, which in turn lead to low attendance, poor learning outcomes, and higher rates of dropping out. Indeed, there is a complex web of discriminatory and exclusionary practices and realities, due to various economic, social, political, and historical factors, that often lead to such barriers.

Poverty plays a major role in both exclusion and discrimination. Poor families struggle to send their children to school even when there is access, and to provide support for their schooling when they do. Children from poorer homes often also suffer nutritional deficiencies that have a direct impact on learning. The lack of quality infrastructure, functional and secure toilets, and safe drinking water in schools in poorer areas represents a severe form of discrimination in education for children from socio-economically disadvantaged communities. The lack of good libraries, laboratories, and learning supplies at school hits children from disadvantaged communities the hardest, as generally, they will not have as many educational resources at home. Social mores and biases also contribute in a serious way to discriminatory practices; for example, many communities believe that

girls need not go through formal schooling. Historical discrimination against various groups in our society has had a strong corresponding harmful impact on the practice of education as well, e.g. differential classroom seating based on caste, or only girls doing domestic chores in school. A longer-term consequence of this kind of systemic bias and discrimination that children witness in school is that many of these groups then remain underrepresented and discriminated against when they grow up and join the professional education community as teachers, school leaders, and educational functionaries, creating a vicious cycle of discrimination.

Finally, school curriculum and textbooks often also play a role. For some communities, the connection between formal schooling and their own lives is unclear, e.g. in cases of exclusionary curricula that do not refer to what is familiar, valuable, or relatable to them. Indeed, any analysis of the existing curricula, pedagogy or textbooks exhibits a biased picture of life where the view of the “powerful” prevails: for example, the earning member of a family is almost always male in our textbooks; names of children in stories might not reflect all communities; there are almost no references to people that are differently-abled. Thus many of our classroom processes do not welcome or encourage children from disadvantaged or underrepresented communities.

Work Needed to be Done to Attain Full Equity and Inclusion in Schools

The critical problems and Policy actions regarding early childhood education, foundational literacy/numeracy, and access/enrolment/attendance respectively, are well-established to be particularly relevant and important for underrepresented and disadvantaged groups; In addition, there have been various successful policies and schemes implemented over the past several years (such as targeted scholarships, conditional cash transfers to incentivize parents to send their children to school, providing bicycles for transport, etc.) that have significantly increased participation of URGs in the schooling system in certain areas. These successful policies and schemes of past years must be renewed and significantly strengthened for URGs across the country.

It will also be essential to take into account research that ascertains which measures are particularly effective for certain URGs. For example, providing bicycles and organizing cycling and walking groups to provide access to school have been shown to be particularly

powerful methods in increasing participation of female students - even at lesser distances - because of the safety benefits and comfort to parents that they also provide. One-on-one tutors and open schooling can be particularly effective for certain CWSN. Schools having quality ECCE reap the greatest dividends for children who come from families that are socially or economically disadvantaged. Meanwhile, the hiring of social workers and counsellors that work with and connect students, parents, schools, and teachers in order to improve attendance and learning outcomes have been found to be especially effective for children in urban poor areas.

Data shows that certain geographical areas contain significantly larger proportions of URG. Thus, this Policy states that certain regions of the country with large populations from URGs should be declared Special Education Zones (SEZs), where all the above schemes and policies are implemented to the maximum through additional concerted efforts and funding from the Centre and States in order to truly change the educational landscape of these Zones.

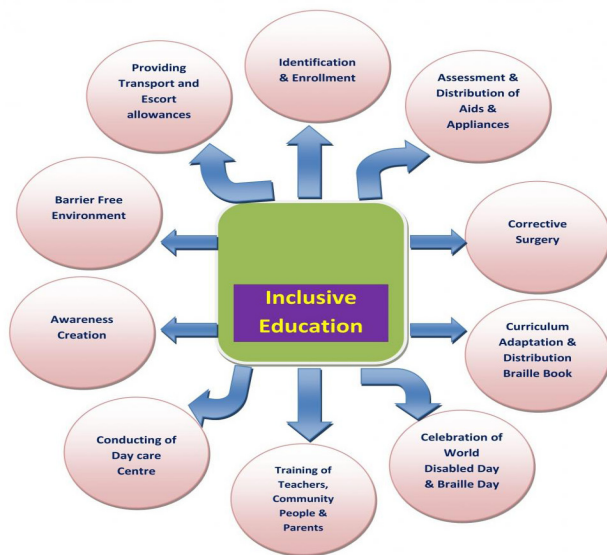
It must be noted that women cut across all URG, making up about one half of all other URGs - unfortunately, the exclusion and inequity that URGs face are only amplified for women. The Policy additionally recognizes the special and critical role that women play in society and in shaping social mores - not only in their own generation but in the next one; therefore, providing a quality education to girls in URGs is the best way to increase the education levels in these URGs not just in the present but also in future generations. The Policy thus states that the policies and schemes designed to uplift students from URGs should be especially targeted towards the girls in these URGs.

All the above policies and measures are absolutely critical to attaining full inclusion and equity for all URGs - but they are not sufficient. What will also be required is a change in school culture. All participants in the school education system, including teachers, principals, administrators, social workers, counselors, and students, will need to be sensitized to the requirements of all students, the notions of inclusion and equity, and the respect and dignity of all persons. Such an educational culture will be the best tool to help students become empowered individuals who, in turn, will enable society to transform into one that is responsible towards its most vulnerable citizens. Inclusion and equity will become a key aspect of teacher education (and training for all leadership,

administrative, and other positions in schools); efforts will be made to recruit more high quality teachers and leaders from URGs in order to bring in excellent role models for all students.

Finally, students will be sensitized through this new school culture brought in by teachers and other school workers (such as social workers and counselors), and also by corresponding changes in the school curriculum. The school curriculum will include material on human values such as respect for all persons, empathy, tolerance, inclusion, and equity early on; any biases in school curriculum will be removed, and more material will be included that is relevant and relatable to all communities, and which develops these human values.

Major Interventions for Inclusive Education (IE)



Source: <https://ssa.assam.gov.in/portlet-innerpage/inclusive-education-0>

Areas of Equitable and Inclusive Education

- Upliftment of underrepresented groups in education
- Education of girls as a cross-cutting theme
- Education of children belonging to Scheduled Caste Communities and Other Backward Classes
- Education of children from educationally underrepresented groups within minority communities
- Education of children from urban poor families
- Education of transgender children
- Education of children with special needs

Suggestions for Equitable and Inclusive Education

Specific additional policy initiatives to ensure that every CWSN is provided meaningful and quality education will include the following:

- Inclusion of children with special needs in regular schools
- Financial support for initiatives for educating children with special needs
- Physical access to schools for children with special needs
- Inclusion of children with special needs
- Provisions for home-based education
- Availability of open schooling for hearing-impaired students
- Special educators and therapists with cross-disability training
- Scholarships for differently-abled students

References

1. Balasubramaniam, A. (2012). Inclusive education for children with special needs. <http://www.thehindu.com/todays-paper>
2. UNICEF (2007). Promoting the Rights of Children with Disabilities. Innocenti Research Centre. Retrieved from <http://www.unicef-irc.org/publications/pdf/digest13-disability.pdf> on 5th December 2015
3. NCF (2005). National Curriculum Framework. New Delhi: NCERT. PP.79-89
4. UNESCO (1994). Salamanca Statement. Retrieved January 17, 2016 from United Nations
5. Educational, Scientific, Cultural Organization. http://portal.unesco.org/education/en/ev.php-URL_ID=10379&URL_DO=DO_TOPIC &URL_SECTION=201.html
6. UNESCO (2000). Dakar Framework for Action.
7. http://www.unesco.org/education/efa/ed_for_all/dakfram_eng.shtml
8. <https://www.dailypioneer.com/2018/columnists/inclusive-education-for-whole-of-india.html>
9. https://mhrd.gov.in/sites/upload_files/mhrd/files/Draft_NEP_2019_EN_Revised.pdf
10. <https://www.ahead.ie/journal/The-journey-toward-Universal-Design-for-Learning-and-the-Provision-of-Reasonable-Accommodations-to-Students-with-Disabilities-in-Higher-Education-in-Ireland>
11. [https://en.wikipedia.org/wiki/Inclusion_\(education\)](https://en.wikipedia.org/wiki/Inclusion_(education)).
13. <http://www.specialeducationguide.com/pre-k-12/inclusion/>

Best Strategies to Get the Most Out of an Online Lecture

Shekhar Grover*

With the compelled lockdown due to Novel Coronavirus (COVID-19) pandemic, universities and colleges are faced with the challenge of how to maintain continuity of teaching while facing extended closures. This had led to a boost in the already growing online education market. India has one of the largest higher education systems in the world, with large chunk of institutions in private sectors. University Grants Commission (UGC) and other regulatory bodies such as Medical Council of India (MCI), All India Council for Technical Education (AICTE) and the Bar Council of India (BCI) etc. regulate formal higher education in India. Informal education includes pre-primary, coaching classes, vocational education and multi-media based educational courses aiding as a supplement or substitute to formal education ⁽¹⁾.

The Indian educational framework is primarily reliant on the traditional physical “brick and mortar” classroom methodology. However, advancements in the use of computers and internet technology have led to the pursuit of improved instructional methods and techniques. The online education environment predominantly has an advantage of universal access, increased flexibility, and preference among young adults, which makes it an engaging tool ⁽²⁾. Even though the evidence insists that distance-education (including online education) may not provide benefit beyond traditional in-class instructions, online classrooms are undoubtedly the “in-thing” today ⁽³⁾.

The Internet and the World Wide Web have made significant changes to almost all aspects of our education system. Internet has made online learning possible, and many universities in India are now diverting towards online learning to enhance and improve student-learning outcomes while combating the reduction in resources, particularly in higher education ⁽⁴⁾.

Moreover, an increase in demand for online learning has been observed. Given the growth of online education and its potential in higher education in the country, it is imperative that educators do opportunely

take-up online learning in educating students when the traditional face-to-face learning is impossible ⁽⁵⁾.

In many respects, the education industry’s move to remote instruction rhymes with the work-from-home move in enterprises. Video conferencing platforms such as Zoom and WebEx are being used heavily as are learning management systems like Instructure’s Canvas, Blackboard and Google Classroom ⁽⁶⁾. There are benefits to this approach, such as continuing the curriculum without extensive interruptions, and virtually connecting experts from home thus preserving time and ensuring comfort both for educators and students.

However, creating an effective remote learning environment isn’t just a technical lecture release, it rather is a distinctive skill and a pedagogical challenge. The basic difference is that in a physical classroom, teachers can observe whether students understand things and can adjust instructions as they go. A physical classroom imparts education incrementally, so students do not get lost and it is easier to provide feedback. In an online environment it is harder to monitor student’s understanding, and there is a possibility that the lecture flow may be delivered too early; leaving learners lost ⁽⁷⁾.

Considering the restrictions imposed upon in the current epidemic, online learning seems to be the sole remedy to pedal the education system in the country. The current perspective discusses some of the best modalities, which can help both students and educators to gain the best out of online lectures.

Preparedness Plans for Delivering Online Education

This paper which is addressed to young faculty puts forward key points, which should be kept in mind while delivering an online lecture. These essential preparedness points are categorized into pre-lecture; during lecture; and post-lecture.

A. Before Starting an Online Lecture

- a. *Prepare and set up a working environment:* As an educator, working remotely (in general)

*Public Health Consultant, Maulana Azad Institute of Dental Sciences, New Delhi

is the biggest challenge. Without the perfect environment and a good amount of self-discipline, stay-at-home-job can be quite puzzling. With a little planning, this can be avoided. This requires three major steps: setting up a dedicated workplace, modifying its environment (free from distractions), and a disciplined routine. In addition to this, natural lighting and an ergonomic chair boosts up your motivation ⁽⁸⁾.

- b. *Plan the Lecture:* It is implied that the students are not physically present; rather, they probably will never all be online at the same time. Planning is essential for an online classroom environment. Start by deciding on a course structure that suits your curriculum, and determining the optimum sequence of online lectures ⁽⁹⁾.

Be sure to have your syllabus and materials laid out clearly. This will give students an opportunity to see if your classroom (the deadlines, materials, and other requirements) can fit into their lives. Instructors should also pay attention to the listed prerequisites (system requirements, approx. dedicated time, difficulty of assignments, etc.) to make sure that the online course is at the appropriate level.

- c. *Master the technology:* Teaching online requires a basic level of technical knowledge. To gather this, one should invest in the right hardware and software. You need a reliable computer with a webcam and mic, a strong Internet connection, and the best online education platform to meet your needs. There are many options available. The most popular ones are Zoom, WebEx, Moodle, Skype, Adobe Connect and Google Classroom, which offer a free-to-use or a minimal subscription package for video conferencing/online lecturing. It is vital that instructors should do their research and play around with their final choice.

Preferably, the software should have options for compatibility with multiple operating systems, easy-to-go mobile apps, and other important functions such as one-click start, screen sharing, chat, blocking a user, video recording, and cyber protection ⁽¹⁰⁾. Don't forget to mention your minimum

system requirements in the Online course curriculum.

- d. *Run a test class:* Run a test class and practice transitions between slides and videos. This is extremely important for educators who are new to online teaching. A test class would further ensure time management according to the learning objectives of the class. Further, teachers should check and know how to communicate with audience via the platform's chat function. Online video-based platforms such as YouTube offer plenty of instructional videos (even in local languages) for an individual training ⁽¹¹⁾.

B. While Conducting an Online Lecture

- a. *Set the stage:* After an online lecture is initiated, it's the educator who is the man of the show. However, online teaching makes inter-personal interactions seem cold, therefore, eye contact is essential. Both the teachers and the students therefore must gaze directly at the webcam. The space must also have appropriate lighting.

Clear, undisturbed audio too, is critical for transmitting learning. Check that your audio is up to specification through test calls ⁽¹²⁾. Most software supports a 'Mute' function in order to reduce background noise or prevailing echo. Course instructors must also consider structuring their online course at a lesser bandwidth to possibly include students having weaker internet connections.

- b. *Treat an online lecture like a "real" lecture:* An online lecture requires strict time scheduling and discipline, just as a physical classroom. One of the easiest ways to ensure this is to "show up" for the class the same way as you would for a face-to-face class. Further, it is imperative that an educator should practice clear rules of interaction. An educator must clarify basics about being respectful in an online course too: dress code, how to ask questions, break time, when and why to use the mute function, etc. However, it does not limit an educator to provide in-between individual coaching during the class.

- c. *Student Engagement (innovate and stimulate discussions)*: Initiating and encouraging discussions in an online lecture can go a long way in terms of making the students engaged. Encourage participation, much like you would in class. This can be done in a variety of ways such as discussions, posting slides/pictures, assigning reading material, etc. Methods to facilitate student involvement must be planned beforehand.

Secondly, the educator must maintain a consistent online presence. Not having a teacher in front of students can make them nervous or oblivious to ongoing preaching. It is rather not wrong for an educator to ‘be in your own self’ during the class.

Also, the educator must motivate its students. Everyone learns differently, and motivation plays a big part in the learning process. While some students are self-motivated in that learning something new is all the motivation they may need, some students may not be. The ultimate goal of the educator is to find ways to help students get the most out of the class without the benefit of physical presence.

- d. *Be prepared for failures*: Not everyone will respond actively to your questions, discussions and assignments at the same interest level. The educator must be consistent in motivating students, and affirmative in designating deadlines. Also, it is understandable that technology glitches happen all the time. The educator must ensure to save their recorded lectures and backup regularly using cloud storage, such as Dropbox or Google Drive⁽¹³⁾.

C. *After Completing an Online Lecture*

- a. *Assessing student satisfaction (Feedback)*: Students shall provide a valuable feedback that can help propagate the online class effectively to the next session. With education moving online more and more, the students probably already have experienced an online classroom. Their experience may

help them to inform an educator on the positives and negatives of overall lecture.

Further, an educator must encourage and build online discussion boards after the class. This helps build relationships with and between students. Rather, an educator shouldn’t be hesitant in creating a virtual study group for its students.

- b. *Final thoughts*: It is imperative for an educator to communicate a ‘final thought’ or a ‘summary’ about the lecture topic as well as the conduct of the session. This creates a sense of content and satisfaction both for the learners and teachers. It would be helpful if the educator provides a quick revision of the topics discussed, if only the headings are narrated.

Challenges in Online Education

Online lectures aren’t as simple as just deliver-and-absorb; there are certain downsides to online lecturing. Evidence clearly states that online lectures may not always be as good as physical classrooms⁽¹⁴⁾. Online learning, undeniably, boasts a few valuable advantages, however, the approach isn’t ideal for all situations and students. Before jumping into this technology-based learning milieu in light of the ongoing COVID-19 pandemic, one should consider its disadvantages:

- Lack of infrastructure and hardware facilities/strong Internet connection, especially in rural areas
- Acceptability issues by the employing organizations
- Availability and pricing of Content
- Individual attention is a notable issue
- Lack of familiarity to computers and software by students
- Total dependence on Internet, which might not be available everywhere and to everyone
- Inability to provide in-depth explanation
- Language barriers
- Content duplication (availability of free content)
- Lack of self-paced learning

Conclusion

Overall, online education is a wonderful opportunity. Preparing to move education outside of traditional physical classrooms in response to COVID-

19 epidemic requires thought, coordination and careful decision-making. The potential flexibility of online classrooms is an undeniable benefit. It has the potential to reach students one could never meet in a physical classroom. However, online teaching isn't something to jump into, but it also really isn't as challenging as it seems.

Online educators and students need to synthesize information across subjects to critically weigh significantly different perspectives and incorporate various inquiries. In doing so, they need to construct a critical learning environment, where students are encouraged to increase their capacities of analysis, imagination, critical synthesis, and creative expression in action. Only well-designed and effectively delivered online courses can survive to fulfill the benefit of physical classrooms. With some effective preparation, one can remain on the forefront of the online educational movement.

References

1. Evolution of Online Education in India: An introduction; 2017. Available on: <https://assets.kpmg/content/dam/kpmg/in/pdf/2017/05/Online-Education-in-India-2021.pdf>
2. Jensen SA. In-Class Versus Online Video Lectures: Similar Learning Outcomes, but a Preference for In-Class. *Teaching of Psychology* 2011; 38(4): 298-302
3. Sitzmann T, Kraiger K, Stewart D, Wisher R. The comparative effectiveness of web-based and classroom instruction: A meta-analysis. *Personnel Psychology* 2006; 59: 623-664
4. Pape L. Blended Teaching & Learning. *School Administrator* 2010;67(4): 16–21
5. Nguyen T. The Effectiveness of Online Learning: Beyond No Significant Difference and Future Horizons. *MERLOT Journal of Online Learning and Teaching* 2015; 11(2): 309-19.
6. Dignan L. Online learning gets its moment due to COVID-19 pandemic: Here's how education will change. Blog, March 22, 2020. Available at: <https://www.zdnet.com/article/online-learning-gets-its-moment-due-to-covid-19-pandemic-heres-how-education-will-change/>
7. Martin A. How to Optimize Online Learning in the Age of Coronavirus (COVID-19): A 5-Point Guide for Educators. An Online article posted at UNSW Newsroom. Available at: <https://newsroom.unsw.edu.au/news/social-affairs/how-optimise-online-learning-age-coronavirus>
8. Philips J. 7 Tips On How To Prepare For Teaching Online. Blog, 2016. Available at: <https://elearningindustry.com/7-tips-prepare-for-teaching-online>
9. Searls DB. Ten Simple Rules for Online Learning. *PLoS Comput Biol* 2012; 8(9): e1002631. doi:10.1371/journal.pcbi.1002631
10. Grandy T. Take your teaching Online: The Micro-lecture. Blog, May 17, 2016. Available at: <https://www.insidehighered.com/blogs/gradhacker/take-your-teaching-online-micro-lecture>
11. How to take Online Lectures; YouTube search, Apr 2020. Accessed from: https://www.youtube.com/results?search_query=how+to+take+online+lectures
12. Eisenberg E, Escobar A. COVID-19: 10 steps for transferring your course online. Blog, 26 Mar 2020. Available at: <https://www.weforum.org/agenda/2020/03/covid-19-10-steps-online-learning/>
13. Pappas C. Getting the most out of your eLearning course: 10 study tips for Online Learners. Blog, June 10, 2015. Available at: <https://elearningindustry.com/10-study-tips-for-online-learners-getting-the-most-out-of-your-elearning-course>
14. Writers S. 10 Big Problems With Lecture-Based Learning. Blog, Nov 2, 2011. Available at: <https://www.onlineuniversities.com/10-Big-Problems-With-Lecture-Based-Learning>



National Conference on New Horizons in Multidisciplinary Research

A One-day National Conference on ‘Towards New Horizons in Multidisciplinary Research and Development’ was organized by Genesin of Educational Impressions, Roorkee, Haridwar, Uttarakhand, recently. The event was accompanied by Award Ceremony. The conference witnessed the hundreds of participants across the nation from different states and presented their research findings on a variety of topics like psychology, political science, chemical sciences, arts and culture, education, human resource and management, etc.

Dr. Amarendra Pani, Joint Director and Head, Research Division, Association of Indian Universities (AIU), New Delhi was the Chief Guest of the function and Dr. Ashok Sharma, Regional Director, IGNOU Regional Centre, New Delhi was Guest of Honor in the Conference. Er. Varun Pratap Singh, College of Engineering Roorkee was invited as a Special Guest. Prof. Garima Sharma, Convener and Organizer of the event delivered the welcome address .

Prof. S B Sharma, Patron of the Organization, in his introductory speech explained the theme of the Conference and its objective. He said, “In this era of fast moving society, numerous types of socio-economic problems, having relation to other disciplines like politics, anthropology, psychology resulted into the adoption of multidisciplinary research which is in practice not only in developed countries but all over the globe. He further said that research is all about constant improvement in the existing things. The purpose of research is not to gain a doctoral degree, it really helps to know how to combine facts and come up with solutions that can help the advancement of the society. The motto of the conference is to help in exploring the meeting of several disciplines under one heading and the need for multidisciplinary research.”

Dr. Amarendra Pani, in his address on ‘Building Research Ecosystem in University: An Imperative for Knowledge Economy’ gave reference of a beautiful city *Mahesmati* to explain the concept of knowledge revolution. While explaining the concept of Research Ecosystem, he also threw light over the present status of universities in India along with the research scenario, growth rate of *Shodhganga*, number of total researchers, women researchers, number of domestic and foreign patents filed and Indian budget in Research and Development in Academic Research.

Dr. Ashok Sharma, Guest of Honor and Invited Speaker delivered his lecture on ‘Effective Strategies of Behaviour Management for Life Success of Students: Role of Teachers’. He told about the behavior management which ultimately depends on the thoughts of an individual. There are some zones for regulating the thoughts in order to get extraordinary achievements which are comfort zone, fear zone, learning zone and then last growth zone. He stressed on the importance of overcoming ‘Comfort Zone’ and ‘Consistency’ in order to get success in the life. This is also what a researcher requires for accomplishment of the research project.

Er. Varun Pratap Singh, College of Engineering Roorkee explained about ‘Learning System through Google Classroom’. He explored and presented how teaching learning can be made effective with the help of digital technology. He told the researchers and teachers about the use and importance of *Swayam* Portal, MOOC Courses, NPTEL and other On-line courses from MIT and Harvard University. By doing the courses, anyone can make himself professionally sound and knowledgeable.

Dr. Ashok Parmar, Gujarat Vidyapith, Ahmedabad; Dr. Vinay Dwivedi, NVEM Institute, Kanpur, Uttar Pradesh; Ms Sreeja Mukherjee, Kolkata, West Bengal and many teachers, research scholars and students presented their research papers in the Conference. Ms Sreeja was conferred with ‘Youth Achievement Award’. Mr. Mukesh Masih who presented a paper on ‘Police Education’ was

conferred with Best Research Paper Award and Dr. Neelima Joshi was given Best Presentation Award for her paper on 'Disasters with Special Reference to Uttarakhand'.

On the occasion, a book edited by Prof. Garima Sharma containing select research papers among hundreds of those received for the conference was released. Another book 'Environmental Science' authored by Prof. S B Sharma and Dr. Neelima Joshi and published by Genesis of Educational Impressions, Roorkee was also released on the occasion.

About forty academicians and research scholars were honored for their achievements in the Award Ceremony. Dr. Ashok M. Parmar was conferred with 'Innovative Teaching Award', Dr. Sushma Rani, Associate Professor in Education with 'Outstanding Women Educationist Award', Dr. Naveen, Associate Professor, Geography with 'Youth Achievement Award' and Dr. Vinay Dwivedi, Er. Varun Pratap Singh was felicitated with 'Outstanding Mentoring of the Students Award'.

Conclave on New Placement Avenues in Agriculture

A two-day Industry Conclave on 'New Placement Avenues in Agriculture' was organized under National Agricultural Higher Education Project (NAHEP)-Institutional Development Plan (IDP) at Chaudhary Charan Singh Haryana Agricultural University, Hisar recently. The event was inaugurated by Prof. K P Singh, Vice Chancellor of the University. During the conclave Scientists, Officers and Students of the University were present.

Dr S K Sehrawat, Director Research and Principal Investigator, IDP project delivered the welcome address and briefed about the NAHEP-IDP objectives, functioning and its new initiatives. He further said that the IDP project aims to strengthen and streamline Higher Agricultural Educational System so that the quality of human resources to Agri-supply Chain may meet future challenges in agriculture. The main aim of IDP is to augment institutional capacity to provide world-class agri-leaders for market driven sustainable agriculture in global context.

Prof. K P Singh, in his key note address highlighted the importance of linkage between

industry-educational institutions. He said that all major universities abroad have progressed through industrial links. However, such relations are not much established in India as there is a lack of trust between the two sides. We need to move beyond those doubts and be helpful to each other. He invited industries to come forward and work on partnership opportunities with HAU. He further said that we are an agricultural university and we have faculties and facilities not only for agriculture but also for all other related fields. He said that no industry can survive without innovation. Research is an integral part of progress in every field. Industries should invest in our students in the early stage of the degree so that the students became proficient and experts before joining for internships. Industries can sponsor research directly through the fund department or ABIC or come forward for joint projects. He urged the faculty of HAU to be open to industrial contacts. He said that we are ready to change our practical curriculum and want to make our students conform to the industry. He stressed that we should prepare a short duration intensive workshop where industrial representatives can come to the concerned departments on weekly/monthly period without waiting for such annual events. He stressed on the need for skill development training for both students and teachers at national and international levels. He said that HAU has set up a cell specifically for corporate and industrial relations and is looking forward to better relations with the industry. Dr. Soren K Rasmussen, University of Copenhagen, Denmark and Prof. Eugster Werner from ETH Zurich, Switzerland also addressed the participants.

During the programme Dr. Rattan Yadav, Aberystwyth University, United Kingdom (UK), Dr. Soren K Rasmussen, University of Copenhagen, Denmark and Leading Entrepreneur, Industry and Alumni presented their working and future plans among participants in Visual form. Mr. Parmjit Singh, Principal Director, RCED, Chandigarh also addressed the participants. To achieve main goal of the conclave, Interactive Sessions among Industries, Students and Delegates were organised. Dr. R K Jhorar Dean, COAE &T and Associate Coordinator-IDP delivered Vote of Thanks.

National Seminar on Enhancing Quality in Teacher Education

A One-day National Seminar on 'Enhancing Quality in Teachers Education' was organized by PSNL College of Education Sattur, Tamil Nadu, recently. Dr. V Thanodharan, Former Principal, VO Chidambaram College of Education, Tuticorin, Tamil Nadu and Dr. C Praveen, Principal, Institute of Advanced in Education, Thirur Kerala were the Guests of Honour. About three hundred and fifty teachers, research scholars and student were participated in the Seminar. The Seminar was chaired by Thiru K Raju, Chairman of College and inaugurated by Dr. V Thamodharan. Mr. B Kannan, Assistant Professor of Physical Science delivered the welcome address.

Dr. G Gopalakrishnamoorthy, Academic Advisor in his address stressed the importance of such events. He expressed his happiness for getting university first rank in Tamil continuously for the second year. Dr. V Thamodharan, in his inargural address lamented on the diminishing status of education in Tamil Nadu. He pointed out that Tamil Nadu is at 23rd place among the states in India and is nowhere in the world ranking. He said that the youngsters are the backbone of our country and the teachers are the backbone of the youngsters.

During the technical session, Dr. V Thamodharan spoke on 'Revamping the Professional Enrichment of Teachers'. He pointed out that a good teacher touches the heart of the students where as a teacher simply touches his ears. A teacher should behave ethically as well as morally. He should update his knowledge regularly keeping in mind the fast changes in the world. A teacher should have the qualities of a mother and father and he should tries to know the strength and weakness of a student. He should impose only positive thinking in students mind. Nowadays many students have the feeling of insecurity and a teacher should uproot such feelings from the students. Welcoming questions from the students and allowing them to interact with the teachers are the good qualities of a teacher. He opined that a teacher teaches but a good teacher makes students learn more. He explained few strategies to impart excellence and efficiency in teacher education.

Dr. C Praveen spoke on 'Integrating ICT for Quality Enhancement in Teacher Education'. He

rightly pointed that ICT benefits both the students as well as the teachers. He said that ICT enables greater imaginative understanding, provides clear logical thinking, enhances learner capacity and provides new forms and structure for representing knowledge. He said that in the era of technology, ICT supports plenty of resources to enhance the quality of teacher education. He is of the opinion that the quality of knowledge in a society depends upon the quality of education it provides. He stressed the need of creating positive learning environment. He said that in a positive learning environment all students feel comfortable and secured in an environment where they can interact with the teachers. Teachers can also help to create a positive environment by simply caring for the students and telling each of them that they are special. He opined that a teacher should enter the classroom with an energetic and positive attitude. In the paper presentation session, seventy three research articles were presented. Dr. R J Rathiees, Principal of the College acted as the moderator. Mr. K Raju, Chairman of the College distributed participation certificates to the participants. Professor S Karthika, Assistant Professor of English delivered the Vote of Thanks.

Online Workshops at NAHRD

National Academy of Human Resource Development (NAHRD) is organizing some online courses for the officers and staff working in public sectors . NAHRD was established to deliver competency-enhancing learning to officials of Central and State Government, Public Sector Undertakings, Autonomous Bodies, Banks, Insurance Companies, etc. Various areas of expertise at NAHRD are Reservation in Services, Right to Information, Administrative Vigilance, Disciplinary Rules & Procedures, Prevention of Sexual Harassment of Women at Workplace, Pay Fixation Rules, Stress Management, Insolvency & Bankruptcy Code (IBC), Corporate Social Responsibility, Leadership Development and many more. Following Online Workshops are being organized by it in May and June:

- CSR for COVID-19 on 22.05.2020
- Relaxations and Compliances under Companies Act in view of COVID on 19 to 26 May
- Demystifying CSR on 29.05.2020

- Gender Sensitization and Prevention of Sexual Harassment of Women at Workplace on 1.06.2020
 - GST with special focus on TDS, ITC and Compliances on 03.06.2020
 - Government e-Marketplace (GeM) on 05.06.2020
 - Reservation in Services for SC/ST/OBC/EWS on 08.06.2020
 - Right to Information Act on 10.06.2020
 - Board Governance for Directors, Independent Directors & KMPs on 12.06.2020
 - Conduct of Inquiry in Sexual Harassment Cases on 15.06.2020
 - GST with focus on Compliances and provisions specific to government organizations on 17.06.2020
 - Workshop on Pay Fixation Rules (CDA and IDA) on 19.06.2020
 - Workshop on National Pension System (NPS) on 19.06.2020
 - Public Procurement and E-Procurement on 22.06.2020
 - Preventive Vigilance including steps to be taken in tender process on 24.06.2020
 - Disciplinary Rules: Principles of Natural Justice, Drafting of Charge Sheet and Role & Functions of I.O. & P.O. on 26.06.2020
- The course delivery will be through judicious mix of Presentations, Exercises and Case Studies. Several On-Line Quizzes and Tests will be essential parts of the delivery, which will provide a measure of the extent the participants have understood the concepts. Registration link will be sent to nominated participants 1-2 day(s) before the workshop. Soft copy of study material and case studies/ exercises (if any) will be provided to the participants well in advance. Digitally signed certificates will be provided to all participants after successful completion of the workshop. Refer the link provided below for further details about the workshop:
- <http://www.nahrd.in/upcoming-workshops>
- For further details contact Mr. Rohit Agarwal NAHRD, A-304, GF, Defence Colony, New Delhi-110024 at 09873057803 or "rohit@nahrd.in".

HANDBOOK ON MANAGEMENT EDUCATION 2012

The 10th edition of “**Handbook on Management Education**” contains State-wise information on 509 institutions in 178 universities conducting management programmes. The information of Institutions in the Handbook includes: Year of establishment of Department/Institute; Name of its Head/Director; probable date of Notification/last date for application; Number of seats available; Seats for NRIs/Foreign students; Eligibility; Application procedure; details of Common Entrance Test; Fees; Hostel Facilities, etc. Also given are ‘Faculty Strength’, commencement of academic session and System of Examination. Information on 34 non-university institutions, the programmes of which have been recognized by AIU and list of institutions conducting PGDM recognized by AIU as equivalent to MBA.

PP 348+xxvi

Paper Back
(Rs 300/- + Postal charges
Rs 25/- each)

Rush pre-paid orders to:-

Publication & Sales Division
Association of Indian Universities
AIU House, 16 Comrade Indrajit Gupta Marg (Kotla Marg)
New Delhi 110002
EPABX 23230059 (six lines)
FAX 011-23232131
E-Mail: publicationsales@aiu.ac.in
Website: <http://www.aiu.ac.in>